

Exhibit A

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

SIERRA CLUB, PRAIRIE RIVERS)	
NETWORK, and NATIONAL)	
ASSOCIATION FOR THE)	
ADVANCEMENT OF COLORED PEOPLE,)	
)	
Complainants,)	
)	PCB 18-11
v.)	(Enforcement – Water)
)	
CITY WATER, LIGHT and POWER,)	
)	
Respondent.)	
)	

JOINT STIPULATIONS

WHEREAS, on June 17, 2021, the Illinois Pollution Control Board (“Board”) directed Complainants Sierra Club, Prairie Rivers Network, and the National Association for the Advancement of Colored People (“Citizen Groups”) and Respondent City of Springfield, Office of Public Utilities d/b/a City Water, Light and Power (“CWLP”) “to proceed expeditiously to hearing on all violations alleged in the amended complaint.” *Sierra Club v. Springfield*, PCB 18-11, Bd. Order at 31–32 (June 17, 2021);

WHEREAS, slug tests performed for CWLP by Professional Service Industries, Inc. in 2010, demonstrated that the hydraulic conductivities of the geologic material in the screened zones of monitoring wells AP-1, AP-2, and AP-3 were greater than 1×10^{-4} cm/sec standard. Bd. Order at 10–11 (citing CWLP SJ Resp., Group Ex. F at 01759-60, 01767); 35 Ill. Adm. Code 620.210(a)(4)(B)(2);

WHEREAS, monitoring wells AP-1, AP-1R, AP-2, and AP-2R, were screened within the

basal sand layer at the bedrock surface. Bd. Order at 29; CWLP SJ Resp., Group Ex. F at 01713;

WHEREAS, a groundwater characterization performed for CWLP by Stabilize, Inc. determined that the basal sand layer at the site is the “uppermost aquifer.” Bd. Order at 10; CWLP SJ Resp., Group Ex. F at 01715;

WHEREAS, CWLP’s expert witness, Brad Hunsberger of Andrews Engineering, testified that that the basal sand deposits beneath CWLP’s surface impoundments would be Class I groundwater; Bd. Order at 11 (citing CG Mot., Hunsberger Fact Dep. Tr. at 61);

WHEREAS, the groundwaters at AP-1, AP-1R, AP-2, AP-2R, and AP-3 were at least ten feet below the land surface. Bd Order at 29;

WHEREAS, the Board made no finding as to the classification of groundwaters at the site. Bd Order at 29;

WHEREAS, the Board found a genuine issue of material fact as to whether exceedances of the Class I or Class II groundwater quality standards for arsenic, chromium, iron, lead, and manganese that were detected at certain downgradient monitoring wells (AP-1, AP-1R, AP-2, AP-2R, AP-3, or AW-3) at concentrations less than their corresponding background levels were caused by the Dallman or Lakeside surface impoundments. Bd. Order at 24; and

WHEREAS, the Board found a genuine issue of material fact as to whether the Dallman or Lakeside surface impoundments caused exceedances of the Class I or Class II groundwater quality standards at monitoring well AW-3. Bd. Order at 24;

IT IS HEREBY STIPULATED AND AGREED by the undersigned parties that:

1. The groundwater in the basal sand deposit beneath the Dallman and Lakeside surface impoundments is Class I;
2. The groundwater at monitoring wells AP-1, AP-1R, AP-2, AP-2R, and AP-3 is Class I;
3. A hearing before the Board regarding (i) the classification of groundwaters at the site; and (ii) the cause of exceedances of groundwater quality standards at AP-1, AP-1R, AP-2, AP-2R, AP-3, or AW-3 is not necessary, and the parties agree to forego the June 7, 2022 hearing.

Respectfully Submitted,

Faith E. Bugel

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Deborah J. Williams

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Dated: May 24, 2022

Exhibit B

Analytical Report

Eric Staley
City, Water, Light & Power
201 East Lake Shore Drive
Springfield, IL 62707

June 06, 2018

Work Order: 18D0523

RE: List G20
2Q18

Dear Eric Staley:

Enclosed are the analytical reports for the EMT Work Order listed. Also included with this analytical report is a copy of the chain of custody associated with these samples. If you have any questions, please contact me.

Sincerely,



Jacoby Jackson
Project Manager
847.967.6666
jjackson@emt.com

Approved for release: 6/5/2018 11:41:33AM

Approved by,



Matthew Gregory
Technical Manager

The contents of this report apply to the sample(s) analyzed. No duplication is allowed except in its entirety. Detection and Reporting limits are adjusted for sample size used, dilutions and moisture content, if applicable.

State of Illinois, NELAP Accredited Lab No. 100256, Cert No. 003674



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Sample Summary

Sample ID	Sub Lab	Laboratory ID	Matrix	Date Sampled	Date Received
RW-3		18D0523-01	Groundwater	05/04/18 09:30	05/04/18 15:15
AP-1		18D0523-02	Groundwater	05/04/18 06:40	05/04/18 15:15
AP-2		18D0523-03	Groundwater	05/04/18 07:20	05/04/18 15:15
AP-3		18D0523-04	Groundwater	05/04/18 07:40	05/04/18 15:15
AP-4		18D0523-05	Groundwater	05/04/18 08:15	05/04/18 15:15
AP-5		18D0523-06	Groundwater	05/04/18 08:50	05/04/18 15:15
RW-3	Eurofins-Eaton (Underwriters)	18D0523-01	Groundwater	05/04/18 09:30	05/04/18 15:15
AP-1	Eurofins-Eaton (Underwriters)	18D0523-02	Groundwater	05/04/18 06:40	05/04/18 15:15
AP-2	Eurofins-Eaton (Underwriters)	18D0523-03	Groundwater	05/04/18 07:20	05/04/18 15:15
AP-3	Eurofins-Eaton (Underwriters)	18D0523-04	Groundwater	05/04/18 07:40	05/04/18 15:15
AP-4	Eurofins-Eaton (Underwriters)	18D0523-05	Groundwater	05/04/18 08:15	05/04/18 15:15
AP-5	Eurofins-Eaton (Underwriters)	18D0523-06	Groundwater	05/04/18 08:50	05/04/18 15:15

Case Narrative

Client: City, Water, Light & Power

Date: 06/06/2018

Project: List G20
2Q18

Work Order: 18D0523

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

Sample results only relate to the sample(s) received at the laboratory and analytes of interest tested.

Work Order: 18D0523

The samples were received on 04/13/18 00:00. The samples arrived in good condition and properly preserved. The temperature of the cooler at receipt was

Cooler Temp C°

Default Cooler

Some of the analyses for this work order were subcontracted. Subcontract data and receipt information is provided. Please also refer to subcontract lab narrative as needed.

Samples 18D0523-04, 05, and 06 were decanted prior to the Radium 226 and 228 analysis due to the sediment in the samples that would interfere with the test.

Refer to Qualifiers and Definitions for quality and analytical clarifications or deviations.

Client Sample Results

Client: City, Water, Light & Power
Project: List G20
 2Q18
Work Order: 18D0523

Client Sample ID: RW-3
Report Date: 06/06/2018
Collection Date: 05/04/2018 09:30
Matrix: Groundwater
Lab ID: 18D0523-01

Analyses	Result	EMT Reporting		Units	Date/Time Analyzed	Batch	Analyst
		Limit	Qual				
On Site Analysis							
Method: SM2510B							
Specific Conductance	656			uS/cm	05/04/18 09:30	B8E0579	PB
Method: SM2550-B							
Temperature	57.3			°F	05/04/18 09:30	B8E0579	PB
Method: SM4500-H							
pH	7.41	0.05		pH Units	05/04/18 09:30	B8E0579	PB
Metals by ICP-AES							
Method: SW6010C / SW3015							
Lithium	0.0119			mg/L	05/16/18 20:50	B8E0595	MLB
Metals by ICP-MS							
Method: SW6020A / SW3015							
Antimony	< 25.0	25.0		ug/L	05/16/18 16:02	B8E0597	AG
Arsenic	82.6	25.0		ug/L	05/16/18 16:02	B8E0597	AG
Barium	182	25.0		ug/L	05/16/18 16:02	B8E0597	AG
Beryllium	< 2.50	2.50		ug/L	05/16/18 16:02	B8E0597	AG
Boron	188	12.5		ug/L	05/16/18 16:02	B8E0597	AG
Cadmium	< 2.50	2.50		ug/L	05/16/18 16:02	B8E0597	AG
Calcium	69.7	1.25		mg/L	05/16/18 17:11	B8E0597	AG
Chromium	< 25.0	25.0		ug/L	05/16/18 16:02	B8E0597	AG
Cobalt	< 25.0	25.0		ug/L	05/16/18 16:02	B8E0597	AG
Lead	< 25.0	25.0		ug/L	05/16/18 16:02	B8E0597	AG
Molybdenum	< 0.0250	0.0250		mg/L	05/16/18 16:02	B8E0597	AG
Selenium	< 25.0	25.0		ug/L	05/16/18 16:02	B8E0597	AG
Thallium	< 25.0	25.0		ug/L	05/16/18 16:02	B8E0597	AG
Mercury by CVAA							
Method: SW7470A							
Mercury	< 0.50	0.50		ug/L	05/08/18 15:29	B8E0293	GSB
Anions by Ion Chromatography							
Method: SW9056A							
Chloride	28.8	5.00		mg/L	05/07/18 16:44	B8E0258	MM7
Fluoride	< 0.500	0.500		mg/L	05/07/18 16:44	B8E0258	MM7
Sulfate	23.7	5.00		mg/L	05/07/18 16:44	B8E0258	MM7
Wet Chemistry							
Method: SM2540C							
Total Dissolved Solids (Residue, Filterable)	400	10.0		mg/L	05/08/18 13:22	B8E0269	JJ2

Eurofins-Eaton (Underwriters), Subcontract

8100 N. Austin Avenue Morton Grove, IL 60053-3203 P 847.967.6666 800.246.0663 F 847.967.6735 www.emt.com

Client Sample Results

(Continued)

Client: City, Water, Light & Power
Project: List G20
 2Q18
Work Order: 18D0523

Client Sample ID: RW-3
Report Date: 06/06/2018
Collection Date: 05/04/2018 09:30
Matrix: Groundwater
Lab ID: 18D0523-01 (Continued)

Analyses	Result	EMT Reporting		Qual	Units	Date/Time Analyzed	Batch	Analyst
		Limit						
Eurofins-Eaton (Underwriters), Subcontract								
Subcontracted Analyses								
Method: SM7500								
Radium-226	0.49	0.24			pCi/L	05/30/18 00:00	18D0523-01	UL
Radium-228	2	0.62			pCi/L	05/30/18 00:00	18D0523-01	UL

Client Sample Results

(Continued)

Client: City, Water, Light & Power
Project: List G20
 2Q18
Work Order: 18D0523

Client Sample ID: AP-1
Report Date: 06/06/2018
Collection Date: 05/04/2018 06:40
Matrix: Groundwater
Lab ID: 18D0523-02

Analyses	Result	EMT Reporting		Qual	Units	Date/Time Analyzed	Batch	Analyst
		Limit						
On Site Analysis								
Method: SM2510B								
Specific Conductance	1430				uS/cm	05/04/18 06:40	B8E0579	PB
Method: SM2550-B								
Temperature	56.0				°F	05/04/18 06:40	B8E0579	PB
Method: SM4500-H								
pH	6.65	0.05			pH Units	05/04/18 06:40	B8E0579	PB
Metals by ICP-AES								
Method: SW6010C / SW3015								
Lithium	0.00912				mg/L	05/16/18 20:54	B8E0595	MLB
Metals by ICP-MS								
Method: SW6020A / SW3015								
Antimony	< 25.0	25.0			ug/L	05/16/18 16:03	B8E0597	AG
Arsenic	< 25.0	25.0			ug/L	05/16/18 16:03	B8E0597	AG
Barium	61.1	25.0			ug/L	05/16/18 16:03	B8E0597	AG
Beryllium	< 2.50	2.50			ug/L	05/16/18 16:03	B8E0597	AG
Boron	15800	125			ug/L	05/16/18 17:13	B8E0597	AG
Cadmium	< 2.50	2.50			ug/L	05/16/18 16:03	B8E0597	AG
Calcium	190	1.25			mg/L	05/16/18 17:13	B8E0597	AG
Chromium	< 25.0	25.0			ug/L	05/16/18 16:03	B8E0597	AG
Cobalt	< 25.0	25.0			ug/L	05/16/18 16:03	B8E0597	AG
Lead	< 25.0	25.0			ug/L	05/16/18 16:03	B8E0597	AG
Molybdenum	< 0.0250	0.0250			mg/L	05/16/18 16:03	B8E0597	AG
Selenium	< 25.0	25.0			ug/L	05/16/18 16:03	B8E0597	AG
Thallium	< 25.0	25.0			ug/L	05/16/18 16:03	B8E0597	AG
Mercury by CVAA								
Method: SW7470A								
Mercury	< 0.50	0.50			ug/L	05/08/18 15:31	B8E0293	GSB
Anions by Ion Chromatography								
Method: SW9056A								
Chloride	45.4	5.00			mg/L	05/07/18 18:09	B8E0258	MM7
Fluoride	< 0.500	0.500			mg/L	05/07/18 18:09	B8E0258	MM7
Sulfate	573	50.0			mg/L	05/08/18 12:16	B8E0279	MM7
Wet Chemistry								
Method: SM2540C								
Total Dissolved Solids (Residue, Filterable)	1300	10.0			mg/L	05/08/18 13:22	B8E0269	JJ2

Eurofins-Eaton (Underwriters), Subcontract

Client Sample Results

(Continued)

Client: City, Water, Light & Power
Project: List G20
 2Q18
Work Order: 18D0523

Client Sample ID: AP-1
Report Date: 06/06/2018
Collection Date: 05/04/2018 06:40
Matrix: Groundwater
Lab ID: 18D0523-02 (Continued)

Analyses	Result	EMT Reporting		Qual Units	Date/Time Analyzed	Batch	Analyst
		Limit					
Eurofins-Eaton (Underwriters), Subcontract							
Subcontracted Analyses							
Method: SM7500							
Radium-226	1	0.29		pCi/L	05/30/18 00:00	18D0523-02	UL
Radium-228	3.1	0.51		pCi/L	05/30/18 00:00	18D0523-02	UL

Client Sample Results

(Continued)

Client: City, Water, Light & Power
Project: List G20
 2Q18
Work Order: 18D0523

Client Sample ID: AP-2
Report Date: 06/06/2018
Collection Date: 05/04/2018 07:20
Matrix: Groundwater
Lab ID: 18D0523-03

Analyses	Result	EMT Reporting		Units	Date/Time Analyzed	Batch	Analyst
		Limit	Qual				
On Site Analysis							
Method: SM2510B							
Specific Conductance	1420			uS/cm	05/04/18 07:20	B8E0579	PB
Method: SM2550-B							
Temperature	54.1			°F	05/04/18 07:20	B8E0579	PB
Method: SM4500-H							
pH	6.62	0.05		pH Units	05/04/18 07:20	B8E0579	PB
Metals by ICP-AES							
Method: SW6010C / SW3015							
Lithium	0.00725			mg/L	05/16/18 20:58	B8E0595	MLB
Metals by ICP-MS							
Method: SW6020A / SW3015							
Antimony	< 25.0	25.0		ug/L	05/16/18 16:05	B8E0597	AG
Arsenic	< 25.0	25.0		ug/L	05/16/18 16:05	B8E0597	AG
Barium	264	25.0		ug/L	05/16/18 16:05	B8E0597	AG
Beryllium	< 2.50	2.50		ug/L	05/16/18 16:05	B8E0597	AG
Boron	2940	12.5		ug/L	05/16/18 16:05	B8E0597	AG
Cadmium	< 2.50	2.50		ug/L	05/16/18 16:05	B8E0597	AG
Calcium	216	1.25		mg/L	05/16/18 17:15	B8E0597	AG
Chromium	< 25.0	25.0		ug/L	05/16/18 16:05	B8E0597	AG
Cobalt	< 25.0	25.0		ug/L	05/16/18 16:05	B8E0597	AG
Lead	< 25.0	25.0		ug/L	05/16/18 16:05	B8E0597	AG
Molybdenum	< 0.0250	0.0250		mg/L	05/16/18 16:05	B8E0597	AG
Selenium	< 25.0	25.0		ug/L	05/16/18 16:05	B8E0597	AG
Thallium	< 25.0	25.0		ug/L	05/16/18 16:05	B8E0597	AG
Mercury by CVAA							
Method: SW7470A							
Mercury	< 0.50	0.50		ug/L	05/08/18 15:32	B8E0293	GSB
Anions by Ion Chromatography							
Method: SW9056A							
Chloride	41.6	5.00		mg/L	05/07/18 18:38	B8E0258	MM7
Fluoride	< 0.500	0.500		mg/L	05/07/18 18:38	B8E0258	MM7
Sulfate	467	50.0		mg/L	05/08/18 13:41	B8E0279	MM7
Wet Chemistry							
Method: SM2540C							
Total Dissolved Solids (Residue, Filterable)	1170	10.0		mg/L	05/08/18 13:22	B8E0269	JJ2

Eurofins-Eaton (Underwriters), Subcontract

Client Sample Results

(Continued)

Client: City, Water, Light & Power
Project: List G20
 2Q18
Work Order: 18D0523

Client Sample ID: AP-2
Report Date: 06/06/2018
Collection Date: 05/04/2018 07:20
Matrix: Groundwater
Lab ID: 18D0523-03 (Continued)

Analyses	Result	EMT Reporting		Date/Time Analyzed	Batch	Analyst
		Limit	Qual Units			
Eurofins-Eaton (Underwriters), Subcontract						
Subcontracted Analyses						
Method: SM7500						
Radium-226	0.75	0.25	pCi/L	05/30/18 00:00	18D0523-03	UL
Radium-228	1.4	0.56	pCi/L	05/30/18 00:00	18D0523-03	UL

Client Sample Results

(Continued)

Client: City, Water, Light & Power
Project: List G20
 2Q18
Work Order: 18D0523

Client Sample ID: AP-3
Report Date: 06/06/2018
Collection Date: 05/04/2018 07:40
Matrix: Groundwater
Lab ID: 18D0523-04

Analyses	Result	EMT Reporting		Qual	Units	Date/Time Analyzed	Batch	Analyst
		Limit						
On Site Analysis								
Method: SM2510B								
Specific Conductance	1040				uS/cm	05/04/18 07:40	B8E0579	PB
Method: SM2550-B								
Temperature	55.1				°F	05/04/18 07:40	B8E0579	PB
Method: SM4500-H								
pH	6.77	0.05			pH Units	05/04/18 07:40	B8E0579	PB
Metals by ICP-AES								
Method: SW6010C / SW3015								
Lithium	0.00600				mg/L	05/16/18 21:02	B8E0595	MLB
Metals by ICP-MS								
Method: SW6020A / SW3015								
Antimony	< 25.0	25.0			ug/L	05/16/18 16:07	B8E0597	AG
Arsenic	< 25.0	25.0			ug/L	05/16/18 16:07	B8E0597	AG
Barium	99.9	25.0			ug/L	05/16/18 16:07	B8E0597	AG
Beryllium	< 2.50	2.50			ug/L	05/16/18 16:07	B8E0597	AG
Boron	18500	125			ug/L	05/16/18 17:17	B8E0597	AG
Cadmium	< 2.50	2.50			ug/L	05/16/18 16:07	B8E0597	AG
Calcium	145	1.25			mg/L	05/16/18 17:17	B8E0597	AG
Chromium	< 25.0	25.0			ug/L	05/16/18 16:07	B8E0597	AG
Cobalt	< 25.0	25.0			ug/L	05/16/18 16:07	B8E0597	AG
Lead	< 25.0	25.0			ug/L	05/16/18 16:07	B8E0597	AG
Molybdenum	< 0.0250	0.0250			mg/L	05/16/18 16:07	B8E0597	AG
Selenium	< 25.0	25.0			ug/L	05/16/18 16:07	B8E0597	AG
Thallium	< 25.0	25.0			ug/L	05/16/18 16:07	B8E0597	AG
Mercury by CVAA								
Method: SW7470A								
Mercury	< 0.50	0.50			ug/L	05/08/18 15:44	B8E0293	GSB
Anions by Ion Chromatography								
Method: SW9056A								
Chloride	38.4	5.00			mg/L	05/07/18 19:07	B8E0258	MM7
Fluoride	< 0.500	0.500			mg/L	05/07/18 19:07	B8E0258	MM7
Sulfate	355	50.0			mg/L	05/08/18 14:10	B8E0279	MM7
Wet Chemistry								
Method: SM2540C								
Total Dissolved Solids (Residue, Filterable)	894	10.0			mg/L	05/08/18 13:22	B8E0269	JJ2

Eurofins-Eaton (Underwriters), Subcontract

8100 N. Austin Avenue Morton Grove, IL 60053-3203 P 847.967.6666 800.246.0663 F 847.967.6735 www.emt.com

Client Sample Results

(Continued)

Client: City, Water, Light & Power
Project: List G20
 2Q18
Work Order: 18D0523

Client Sample ID: AP-3
Report Date: 06/06/2018
Collection Date: 05/04/2018 07:40
Matrix: Groundwater
Lab ID: 18D0523-04 (Continued)

Analyses	Result	EMT Reporting		Qual	Units	Date/Time Analyzed	Batch	Analyst
		Limit						
Eurofins-Eaton (Underwriters), Subcontract								
Subcontracted Analyses								
Method: SM7500								
Radium-226	0.95	0.24			pCi/L	05/30/18 00:00	18D0523-04	UL
Radium-228	0.88	0.7			pCi/L	05/30/18 00:00	18D0523-04	UL

Client Sample Results

(Continued)

Client: City, Water, Light & Power
Project: List G20
 2Q18
Work Order: 18D0523

Client Sample ID: AP-4
Report Date: 06/06/2018
Collection Date: 05/04/2018 08:15
Matrix: Groundwater
Lab ID: 18D0523-05

Analyses	Result	EMT Reporting		Units	Date/Time Analyzed	Batch	Analyst
		Limit	Qual				
On Site Analysis							
Method: SM2510B							
Specific Conductance	813			uS/cm	05/04/18 08:15	B8E0579	PB
Method: SM2550-B							
Temperature	59.6			°F	05/04/18 08:15	B8E0579	PB
Method: SM4500-H							
pH	7.17	0.05		pH Units	05/04/18 08:15	B8E0579	PB
Metals by ICP-AES							
Method: SW6010C / SW3015							
Lithium	0.00712			mg/L	05/16/18 21:06	B8E0595	MLB
Metals by ICP-MS							
Method: SW6020A / SW3015							
Antimony	< 25.0	25.0		ug/L	05/16/18 16:09	B8E0597	AG
Arsenic	< 25.0	25.0		ug/L	05/16/18 16:09	B8E0597	AG
Barium	356	25.0		ug/L	05/16/18 16:09	B8E0597	AG
Beryllium	< 2.50	2.50		ug/L	05/16/18 16:09	B8E0597	AG
Boron	117	12.5		ug/L	05/16/18 16:09	B8E0597	AG
Cadmium	< 2.50	2.50		ug/L	05/16/18 16:09	B8E0597	AG
Calcium	121	1.25		mg/L	05/16/18 17:18	B8E0597	AG
Chromium	< 25.0	25.0		ug/L	05/16/18 16:09	B8E0597	AG
Cobalt	< 25.0	25.0		ug/L	05/16/18 16:09	B8E0597	AG
Lead	< 25.0	25.0		ug/L	05/16/18 16:09	B8E0597	AG
Molybdenum	< 0.0250	0.0250		mg/L	05/16/18 16:09	B8E0597	AG
Selenium	< 25.0	25.0		ug/L	05/16/18 16:09	B8E0597	AG
Thallium	< 25.0	25.0		ug/L	05/16/18 16:09	B8E0597	AG
Mercury by CVAA							
Method: SW7470A							
Mercury	< 0.50	0.50		ug/L	05/08/18 15:46	B8E0293	GSB
Anions by Ion Chromatography							
Method: SW9056A							
Chloride	12.0	5.00		mg/L	05/07/18 19:35	B8E0258	MM7
Fluoride	< 0.500	0.500		mg/L	05/07/18 19:35	B8E0258	MM7
Sulfate	< 5.00	5.00		mg/L	05/07/18 19:35	B8E0258	MM7
Wet Chemistry							
Method: SM2540C							
Total Dissolved Solids (Residue, Filterable)	482	10.0		mg/L	05/08/18 13:22	B8E0269	JJ2

Eurofins-Eaton (Underwriters), Subcontract

Client Sample Results

(Continued)

Client: City, Water, Light & Power
Project: List G20
 2Q18
Work Order: 18D0523

Client Sample ID: AP-4
Report Date: 06/06/2018
Collection Date: 05/04/2018 08:15
Matrix: Groundwater
Lab ID: 18D0523-05 (Continued)

Analyses	Result	EMT Reporting		Date/Time Analyzed	Batch	Analyst
		Limit	Qual Units			
Eurofins-Eaton (Underwriters), Subcontract						
Subcontracted Analyses						
Method: SM7500						
Radium-226	0.88	0.21	pCi/L	06/01/18 00:00	18D0523-05	UL
Radium-228	0.31	0.62	pCi/L	06/01/18 00:00	18D0523-05	UL

Client Sample Results

(Continued)

Client: City, Water, Light & Power
Project: List G20
 2Q18
Work Order: 18D0523

Client Sample ID: AP-5
Report Date: 06/06/2018
Collection Date: 05/04/2018 08:50
Matrix: Groundwater
Lab ID: 18D0523-06

Analyses	Result	EMT Reporting		Qual	Units	Date/Time Analyzed	Batch	Analyst
		Limit						
On Site Analysis								
Method: SM2510B								
Specific Conductance	688				uS/cm	05/04/18 08:50	B8E0579	PB
Method: SM2550-B								
Temperature	56.2				°F	05/04/18 08:50	B8E0579	PB
Method: SM4500-H								
pH	7.23	0.05			pH Units	05/04/18 08:50	B8E0579	PB
Metals by ICP-AES								
Method: SW6010C / SW3015								
Lithium	0.0125				mg/L	05/16/18 21:10	B8E0595	MLB
Metals by ICP-MS								
Method: SW6020A / SW3015								
Antimony	< 25.0	25.0			ug/L	05/16/18 16:10	B8E0597	AG
Arsenic	< 25.0	25.0			ug/L	05/16/18 16:10	B8E0597	AG
Barium	95.6	25.0			ug/L	05/16/18 16:10	B8E0597	AG
Beryllium	< 2.50	2.50			ug/L	05/16/18 16:10	B8E0597	AG
Boron	61.6	12.5			ug/L	05/16/18 16:10	B8E0597	AG
Cadmium	< 2.50	2.50			ug/L	05/16/18 16:10	B8E0597	AG
Calcium	99.7	1.25			mg/L	05/16/18 17:20	B8E0597	AG
Chromium	< 25.0	25.0			ug/L	05/16/18 16:10	B8E0597	AG
Cobalt	< 25.0	25.0			ug/L	05/16/18 16:10	B8E0597	AG
Lead	< 25.0	25.0			ug/L	05/16/18 16:10	B8E0597	AG
Molybdenum	< 0.0250	0.0250			mg/L	05/16/18 16:10	B8E0597	AG
Selenium	< 25.0	25.0			ug/L	05/16/18 16:10	B8E0597	AG
Thallium	< 25.0	25.0			ug/L	05/16/18 16:10	B8E0597	AG
Mercury by CVAA								
Method: SW7470A								
Mercury	< 0.50	0.50			ug/L	05/08/18 15:48	B8E0293	GSB
Anions by Ion Chromatography								
Method: SW9056A								
Chloride	< 5.00	5.00			mg/L	05/07/18 20:04	B8E0258	MM7
Fluoride	< 0.500	0.500			mg/L	05/07/18 20:04	B8E0258	MM7
Sulfate	66.8	5.00			mg/L	05/07/18 20:04	B8E0258	MM7
Wet Chemistry								
Method: SM2540C								
Total Dissolved Solids (Residue, Filterable)	404	10.0			mg/L	05/08/18 13:22	B8E0269	JJ2

Eurofins-Eaton (Underwriters), Subcontract

8100 N. Austin Avenue Morton Grove, IL 60053-3203 P 847.967.6666 800.246.0663 F 847.967.6735 www.emt.com

Client Sample Results

(Continued)

Client: City, Water, Light & Power
Project: List G20
 2Q18
Work Order: 18D0523

Client Sample ID: AP-5
Report Date: 06/06/2018
Collection Date: 05/04/2018 08:50
Matrix: Groundwater
Lab ID: 18D0523-06 (Continued)

Analyses	Result	EMT Reporting		Date/Time Analyzed	Batch	Analyst
		Limit	Qual Units			
Eurofins-Eaton (Underwriters), Subcontract						
Subcontracted Analyses						
Method: SM7500						
Radium-226	0.93	0.18	pCi/L	06/01/18 00:00	18D0523-06	UL
Radium-228	0.45	0.68	pCi/L	06/01/18 00:00	18D0523-06	UL

Dates Report

Client: City, Water, Light & Power
Project: List G20
 2Q18
Work Order: 18D0523

Report Date: 06/06/2018

Sample ID	Client Sample ID	Collection	Matrix	Test Name	Leached Prep Date	Prep Date	Analysis Date	Batch ID	Sequence
18D0523-01	RW-3	05/04/18	Groundwater	Radiation Testing, Subcontracted		05/22/18 00:00	05/30/18 00:00	18D0523-01	
				Sulfate (SO4), Anions by Ion Chromatography		05/07/18 13:00	05/07/18 16:44	B8E0258	S8E0122
				Fluoride, Anions by Ion Chromatography		05/07/18 13:00	05/07/18 16:44		
				Chloride, Anions by Ion Chromatography		05/07/18 13:00	05/07/18 16:44		
				Solids, Total Dissolved (TDS)		05/08/18 13:22	05/08/18 13:22	B8E0269	
				Mercury, Total CCVA		05/08/18 10:00	05/08/18 15:29	B8E0293	S8E0144
				Temperature in F, Field		05/04/18 09:30	05/04/18 09:30	B8E0579	
				pH, Tested On Site		05/04/18 09:30	05/04/18 09:30		
				Conductance, Field		05/04/18 09:30	05/04/18 09:30		
				Lithium, Total ICP-AES		05/16/18 10:35	05/16/18 20:50	B8E0595	S8E0304
				Molybdenum, Total ICP-MS		05/16/18 10:40	05/16/18 16:02	B8E0597	S8E0319
				Thallium, Total ICP-MS		05/16/18 10:40	05/16/18 16:02		
				Selenium, Total ICP-MS		05/16/18 10:40	05/16/18 16:02		
				Lead, Total ICP-MS		05/16/18 10:40	05/16/18 16:02		
				Chromium, Total ICP-MS		05/16/18 10:40	05/16/18 16:02		
				Cobalt, Total ICP-MS		05/16/18 10:40	05/16/18 16:02		
				Cadmium, Total ICP-MS		05/16/18 10:40	05/16/18 16:02		
				Calcium, Total ICP-MS		05/16/18 10:40	05/16/18 17:11		
				Beryllium, Total ICP-MS		05/16/18 10:40	05/16/18 16:02		
				Barium, Total ICP-MS		05/16/18 10:40	05/16/18 16:02		
Boron, Total ICP-MS		05/16/18 10:40	05/16/18 16:02						
Arsenic, Total ICP-MS		05/16/18 10:40	05/16/18 16:02						
Antimony, Total ICP-MS		05/16/18 10:40	05/16/18 16:02						
18D0523-02	AP-1	05/04/18		Radiation Testing, Subcontracted		05/22/18 00:00	05/30/18 00:00	18D0523-02	
				Fluoride, Anions by Ion Chromatography		05/07/18 13:00	05/07/18 18:09	B8E0258	S8E0122
				Chloride, Anions by Ion Chromatography		05/07/18 13:00	05/07/18 18:09		
				Solids, Total Dissolved (TDS)		05/08/18 13:22	05/08/18 13:22	B8E0269	
				Sulfate (SO4), Anions by Ion Chromatography		05/08/18 08:27	05/08/18 12:16	B8E0279	S8E0146
				Mercury, Total CCVA		05/08/18 10:00	05/08/18 15:31	B8E0293	S8E0144
				Conductance, Field		05/04/18 06:40	05/04/18 06:40	B8E0579	
				Temperature in F, Field		05/04/18 06:40	05/04/18 06:40		
				pH, Tested On Site		05/04/18 06:40	05/04/18 06:40		
				Lithium, Total ICP-AES		05/16/18 10:35	05/16/18 20:54	B8E0595	S8E0304
				Selenium, Total ICP-MS		05/16/18 10:40	05/16/18 16:03	B8E0597	S8E0319
				Thallium, Total ICP-MS		05/16/18 10:40	05/16/18 16:03		
				Boron, Total ICP-MS		05/16/18 10:40	05/16/18 17:13		
				Antimony, Total ICP-MS		05/16/18 10:40	05/16/18 16:03		
				Lead, Total ICP-MS		05/16/18 10:40	05/16/18 16:03		
				Molybdenum, Total ICP-MS		05/16/18 10:40	05/16/18 16:03		
				Chromium, Total ICP-MS		05/16/18 10:40	05/16/18 16:03		
				Cobalt, Total ICP-MS		05/16/18 10:40	05/16/18 16:03		

Dates Report

(Continued)

Client: City, Water, Light & Power

Report Date: 06/06/2018

Project: List G20
2Q18

Work Order: 18D0523

Sample ID	Client Sample ID	Collection	Matrix	Test Name	Leached Prep Date	Prep Date	Analysis Date	Batch ID	Sequence	
18D0523-02	AP-1	05/04/18	Groundwater	Cadmium, Total ICP-MS		05/16/18 10:40	05/16/18 16:03	B8E0597	S8E0319	
				Calcium, Total ICP-MS		05/16/18 10:40	05/16/18 17:13			
				Beryllium, Total ICP-MS		05/16/18 10:40	05/16/18 16:03			
				Barium, Total ICP-MS		05/16/18 10:40	05/16/18 16:03			
				Arsenic, Total ICP-MS		05/16/18 10:40	05/16/18 16:03			
18D0523-03	AP-2	05/04/18	Groundwater	Radiation Testing, Subcontracted		05/22/18 00:00	05/30/18 00:00	18D0523-03		
				Chloride, Anions by Ion Chromatography		05/07/18 13:00	05/07/18 18:38		B8E0258	S8E0122
				Fluoride, Anions by Ion Chromatography		05/07/18 13:00	05/07/18 18:38			
				Solids, Total Dissolved (TDS)		05/08/18 13:22	05/08/18 13:22		B8E0269	
				Sulfate (SO4), Anions by Ion Chromatography		05/08/18 08:27	05/08/18 13:41		B8E0279	S8E0146
				Mercury, Total CCVA		05/08/18 10:00	05/08/18 15:32		B8E0293	S8E0144
				Conductance, Field		05/04/18 07:20	05/04/18 07:20		B8E0579	
				Temperature in F, Field		05/04/18 07:20	05/04/18 07:20			
				pH, Tested On Site		05/04/18 07:20	05/04/18 07:20			
				Lithium, Total ICP-AES		05/16/18 10:35	05/16/18 20:58		B8E0595	S8E0304
				Barium, Total ICP-MS		05/16/18 10:40	05/16/18 16:05		B8E0597	S8E0319
				Antimony, Total ICP-MS		05/16/18 10:40	05/16/18 16:05			
				Lead, Total ICP-MS		05/16/18 10:40	05/16/18 16:05			
				Molybdenum, Total ICP-MS		05/16/18 10:40	05/16/18 16:05			
				Chromium, Total ICP-MS		05/16/18 10:40	05/16/18 16:05			
				Cobalt, Total ICP-MS		05/16/18 10:40	05/16/18 16:05			
				Cadmium, Total ICP-MS		05/16/18 10:40	05/16/18 16:05			
				Thallium, Total ICP-MS		05/16/18 10:40	05/16/18 16:05			
				Beryllium, Total ICP-MS		05/16/18 10:40	05/16/18 16:05			
				Boron, Total ICP-MS		05/16/18 10:40	05/16/18 16:05			
Arsenic, Total ICP-MS		05/16/18 10:40	05/16/18 16:05							
Calcium, Total ICP-MS		05/16/18 10:40	05/16/18 17:15							
Selenium, Total ICP-MS		05/16/18 10:40	05/16/18 16:05							
18D0523-04	AP-3	05/04/18	Groundwater	Radiation Testing, Subcontracted		05/22/18 00:00	05/30/18 00:00	18D0523-04		
				Chloride, Anions by Ion Chromatography		05/07/18 13:00	05/07/18 19:07		B8E0258	S8E0122
				Fluoride, Anions by Ion Chromatography		05/07/18 13:00	05/07/18 19:07			
				Solids, Total Dissolved (TDS)		05/08/18 13:22	05/08/18 13:22		B8E0269	
				Sulfate (SO4), Anions by Ion Chromatography		05/08/18 08:27	05/08/18 14:10		B8E0279	S8E0146
				Mercury, Total CCVA		05/08/18 10:00	05/08/18 15:44		B8E0293	S8E0144
				Temperature in F, Field		05/04/18 07:40	05/04/18 07:40		B8E0579	
				pH, Tested On Site		05/04/18 07:40	05/04/18 07:40			
				Conductance, Field		05/04/18 07:40	05/04/18 07:40			
				Lithium, Total ICP-AES		05/16/18 10:35	05/16/18 21:02		B8E0595	S8E0304
				Beryllium, Total ICP-MS		05/16/18 10:40	05/16/18 16:07		B8E0597	S8E0319
				Chromium, Total ICP-MS		05/16/18 10:40	05/16/18 16:07			
				Selenium, Total ICP-MS		05/16/18 10:40	05/16/18 16:07			

Dates Report

(Continued)

Client: City, Water, Light & Power

Report Date: 06/06/2018

Project: List G20
2Q18

Work Order: 18D0523

Sample ID	Client Sample ID	Collection	Matrix	Test Name	Leached Prep Date	Prep Date	Analysis Date	Batch ID	Sequence		
18D0523-04	AP-3	05/04/18	Groundwater	Thallium, Total ICP-MS		05/16/18 10:40	05/16/18 16:07	B8E0597	S8E0319		
				Antimony, Total ICP-MS		05/16/18 10:40	05/16/18 16:07				
				Lead, Total ICP-MS		05/16/18 10:40	05/16/18 16:07				
				Molybdenum, Total ICP-MS		05/16/18 10:40	05/16/18 16:07				
				Cobalt, Total ICP-MS		05/16/18 10:40	05/16/18 16:07				
				Calcium, Total ICP-MS		05/16/18 10:40	05/16/18 17:17				
				Barium, Total ICP-MS		05/16/18 10:40	05/16/18 16:07				
				Boron, Total ICP-MS		05/16/18 10:40	05/16/18 17:17				
				Arsenic, Total ICP-MS		05/16/18 10:40	05/16/18 16:07				
				Cadmium, Total ICP-MS		05/16/18 10:40	05/16/18 16:07				
18D0523-05	AP-4	05/04/18	Radiation Testing, Subcontracted		05/25/18 00:00	06/01/18 00:00	18D0523-05	B8E0258	S8E0122		
			Sulfate (SO4), Anions by Ion Chromatography		05/07/18 13:00	05/07/18 19:35					
			Fluoride, Anions by Ion Chromatography		05/07/18 13:00	05/07/18 19:35					
			Chloride, Anions by Ion Chromatography		05/07/18 13:00	05/07/18 19:35					
			Solids, Total Dissolved (TDS)		05/08/18 13:22	05/08/18 13:22				B8E0269	
			Mercury, Total CCVA		05/08/18 10:00	05/08/18 15:46				B8E0293	S8E0144
			pH, Tested On Site		05/04/18 08:15	05/04/18 08:15				B8E0579	
			Conductance, Field		05/04/18 08:15	05/04/18 08:15					
			Temperature in F, Field		05/04/18 08:15	05/04/18 08:15					
			Lithium, Total ICP-AES		05/16/18 10:35	05/16/18 21:06				B8E0595	S8E0304
			Boron, Total ICP-MS		05/16/18 10:40	05/16/18 16:09				B8E0597	S8E0319
			Thallium, Total ICP-MS		05/16/18 10:40	05/16/18 16:09					
			Selenium, Total ICP-MS		05/16/18 10:40	05/16/18 16:09					
			Antimony, Total ICP-MS		05/16/18 10:40	05/16/18 16:09					
			Calcium, Total ICP-MS		05/16/18 10:40	05/16/18 17:18					
			Molybdenum, Total ICP-MS		05/16/18 10:40	05/16/18 16:09					
			Chromium, Total ICP-MS		05/16/18 10:40	05/16/18 16:09					
			Barium, Total ICP-MS		05/16/18 10:40	05/16/18 16:09					
			Cobalt, Total ICP-MS		05/16/18 10:40	05/16/18 16:09					
			Beryllium, Total ICP-MS		05/16/18 10:40	05/16/18 16:09					
Cadmium, Total ICP-MS		05/16/18 10:40	05/16/18 16:09								
Lead, Total ICP-MS		05/16/18 10:40	05/16/18 16:09								
Arsenic, Total ICP-MS		05/16/18 10:40	05/16/18 16:09								
18D0523-06	AP-5	05/04/18	Radiation Testing, Subcontracted		05/25/18 00:00	06/01/18 00:00	18D0523-06	B8E0258	S8E0122		
			Fluoride, Anions by Ion Chromatography		05/07/18 13:00	05/07/18 20:04					
			Chloride, Anions by Ion Chromatography		05/07/18 13:00	05/07/18 20:04					
			Sulfate (SO4), Anions by Ion Chromatography		05/07/18 13:00	05/07/18 20:04					
			Solids, Total Dissolved (TDS)		05/08/18 13:22	05/08/18 13:22				B8E0269	
			Mercury, Total CCVA		05/08/18 10:00	05/08/18 15:48				B8E0293	S8E0144
			Temperature in F, Field		05/04/18 08:50	05/04/18 08:50				B8E0579	
			Conductance, Field		05/04/18 08:50	05/04/18 08:50					

Dates Report

(Continued)

Client: City, Water, Light & Power

Report Date: 06/06/2018

Project: List G20
2Q18

Work Order: 18D0523

Sample ID	Client Sample ID	Collection	Matrix	Test Name	Leached Prep Date	Prep Date	Analysis Date	Batch ID	Sequence
18D0523-06	AP-5	05/04/18	Groundwater	pH, Tested On Site		05/04/18 08:50	05/04/18 08:50	B8E0579	
				Lithium, Total ICP-AES		05/16/18 10:35	05/16/18 21:10	B8E0595	S8E0304
				Lead, Total ICP-MS		05/16/18 10:40	05/16/18 16:10	B8E0597	S8E0319
				Arsenic, Total ICP-MS		05/16/18 10:40	05/16/18 16:10		
				Boron, Total ICP-MS		05/16/18 10:40	05/16/18 16:10		
				Thallium, Total ICP-MS		05/16/18 10:40	05/16/18 16:10		
				Antimony, Total ICP-MS		05/16/18 10:40	05/16/18 16:10		
				Barium, Total ICP-MS		05/16/18 10:40	05/16/18 16:10		
				Molybdenum, Total ICP-MS		05/16/18 10:40	05/16/18 16:10		
				Chromium, Total ICP-MS		05/16/18 10:40	05/16/18 16:10		
				Cobalt, Total ICP-MS		05/16/18 10:40	05/16/18 16:10		
				Cadmium, Total ICP-MS		05/16/18 10:40	05/16/18 16:10		
				Calcium, Total ICP-MS		05/16/18 10:40	05/16/18 17:20		
				Beryllium, Total ICP-MS		05/16/18 10:40	05/16/18 16:10		
				Selenium, Total ICP-MS		05/16/18 10:40	05/16/18 16:10		

Quality Control

Client: City, Water, Light & Power
Project: List G20
 2Q18
Work Order: 18D0523

Report Date: 06/06/2018
Matrix: Water

Metals by ICP-AES

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch: B8E0595 - SW3015
Blank (B8E0595-BLK1)
Prepared: 05/16/2018 10:35 Analyzed: 05/16/2018 20:38

Lithium -0.000125 mg/L

LCS (B8E0595-BS1)
Prepared: 05/16/2018 10:35 Analyzed: 05/16/2018 20:42

Lithium 1.30 mg/L 1.250 104 80-120

MRL Check (B8E0595-MRL1)
Prepared: 05/16/2018 10:35 Analyzed: 05/16/2018 20:46

Lithium 0.0645 mg/L 0.06250 103 0-200

Matrix Spike (B8E0595-MS1)
Source: 18D0523-06 *Prepared: 05/16/2018 10:35 Analyzed: 05/16/2018 21:14*

Lithium 1.26 mg/L 1.250 0.0125 99.8 75-125

Matrix Spike Dup (B8E0595-MSD1)
Source: 18D0523-06 *Prepared: 05/16/2018 10:35 Analyzed: 05/16/2018 21:35*

Lithium 1.24 mg/L 1.250 0.0125 97.8 75-125 1.97 20

Quality Control

(Continued)

Client: City, Water, Light & Power
Project: List G20
 2Q18
Work Order: 18D0523

Report Date: 06/06/2018
Matrix: Water

Metals by ICP-MS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch: B8E0597 - SW3015

Blank (B8E0597-BLK1)

Prepared: 05/16/2018 10:40 Analyzed: 05/16/2018 15:56

Antimony	< 25.0	25.0	ug/L							
Arsenic	< 25.0	25.0	ug/L							
Barium	< 25.0	25.0	ug/L							
Beryllium	< 2.50	2.50	ug/L							
Boron	< 12.5	12.5	ug/L							
Cadmium	< 2.50	2.50	ug/L							
Calcium	< 0.125	0.125	mg/L							
Chromium	< 25.0	25.0	ug/L							
Cobalt	< 25.0	25.0	ug/L							
Lead	< 25.0	25.0	ug/L							
Molybdenum	< 0.0250	0.0250	mg/L							
Selenium	< 25.0	25.0	ug/L							
Thallium	< 25.0	25.0	ug/L							

LCS (B8E0597-BS1)

Prepared: 05/16/2018 10:40 Analyzed: 05/16/2018 15:58

Antimony	1220	25.0	ug/L	1250	97.5	85.9-115				
Arsenic	1150	25.0	ug/L	1250	92.2	85-101				
Barium	1120	25.0	ug/L	1250	89.7	90.2-111				S
Beryllium	116	2.50	ug/L	125.0	92.6	83-121				
Boron	603	12.5	ug/L	625.0	96.5	73-130				
Cadmium	111	2.50	ug/L	125.0	88.4	85-107				
Calcium	6.40	0.125	mg/L	6.250	102	87-118				
Chromium	1280	25.0	ug/L	1250	103	86.9-110				
Cobalt	1330	25.0	ug/L	1250	107	86-115				
Lead	1190	25.0	ug/L	1250	95.4	87.4-115				
Molybdenum	1.39	0.0250	mg/L	1.250	112	94.4-115				
Selenium	1060	25.0	ug/L	1250	84.5	80-120				
Thallium	1210	25.0	ug/L	1250	96.5	82-116				

LCS (B8E0597-BS2)

Prepared: 05/16/2018 10:40 Analyzed: 05/16/2018 17:10

Antimony	1250	25.0	ug/L	1250	99.8	85.9-115				
Arsenic	1150	25.0	ug/L	1250	92.2	85-101				
Barium	1170	25.0	ug/L	1250	93.3	90.2-111				
Beryllium	112	2.50	ug/L	125.0	90.0	83-121				
Boron	577	12.5	ug/L	625.0	92.4	73-130				
Cadmium	107	2.50	ug/L	125.0	85.9	85-107				
Calcium	6.43	0.125	mg/L	6.250	103	87-118				
Chromium	1270	25.0	ug/L	1250	101	86.9-110				
Cobalt	1290	25.0	ug/L	1250	103	86-115				
Lead	1220	25.0	ug/L	1250	97.3	87.4-115				
Molybdenum	1.31	0.0250	mg/L	1.250	105	94.4-115				
Selenium	1030	25.0	ug/L	1250	82.7	80-120				

Quality Control

(Continued)

Client: City, Water, Light & Power
Project: List G20
 2Q18
Work Order: 18D0523

Report Date: 06/06/2018
Matrix: Water

Metals by ICP-MS

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch: B8E0597 - SW3015 (Continued)
LCS (B8E0597-BS2) (Continued)

Prepared: 05/16/2018 10:40 Analyzed: 05/16/2018 17:10

Thallium	1230	25.0	ug/L	1250		98.5	82-116			
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Serial Dilution (B8E0597-DUP1)

Source: 18D0523-06

Prepared: 05/16/2018 10:40 Analyzed: 05/16/2018 16:12

Antimony	< 20.0	125	ug/L		ND				10	
Arsenic	< 20.0	125	ug/L		ND				10	
Barium	110	125	ug/L		95.6			13.7	10	P
Beryllium	< 2.00	12.5	ug/L		ND				10	
Boron	101	62.5	ug/L		61.6			48.8	10	P
Cadmium	< 1.25	12.5	ug/L		ND				10	
Calcium	115	0.625	mg/L		105			8.93	10	
Chromium	< 12.5	125	ug/L		ND				10	
Cobalt	< 15.0	125	ug/L		ND				10	
Lead	< 20.0	125	ug/L		ND				10	
Molybdenum	< 0.0125	0.125	mg/L		ND				10	
Selenium	< 17.5	125	ug/L		ND				10	
Thallium	< 1.75	125	ug/L		ND				10	

MRL Check (B8E0597-MRL1)

Prepared: 05/16/2018 10:40 Analyzed: 05/16/2018 16:00

Antimony	34.5	25.0	ug/L	31.25		110	70-130			
Arsenic	32.0	25.0	ug/L	31.25		102	70-130			
Barium	30.8	25.0	ug/L	31.25		98.6	70-130			
Beryllium	3.35	2.50	ug/L	3.125		107	70-130			
Boron	19.0	12.5	ug/L	15.62		121	70-130			
Cadmium	3.01	2.50	ug/L	3.125		96.3	70-130			
Calcium	0.157	0.125	mg/L	0.1250		126	70-130			
Chromium	33.3	25.0	ug/L	31.25		107	70-130			
Cobalt	25.3	25.0	ug/L	25.00		101	70-130			
Lead	31.4	25.0	ug/L	31.25		101	70-130			
Molybdenum	0.0262	0.0250	mg/L	0.02500		105	70-130			
Selenium	29.2	25.0	ug/L	31.25		93.6	70-130			
Thallium	31.9	25.0	ug/L	31.25		102	70-130			

Matrix Spike (B8E0597-MS1)

Source: 18D0523-06

Prepared: 05/16/2018 10:40 Analyzed: 05/16/2018 17:22

Antimony	1170	25.0	ug/L	1250	ND	93.6	75-125			
Arsenic	1180	25.0	ug/L	1250	ND	94.3	75-125			
Barium	1250	25.0	ug/L	1250	95.6	92.7	75-125			
Beryllium	117	2.50	ug/L	125.0	0.519	93.4	75-125			
Boron	613	12.5	ug/L	625.0	61.6	88.2	75-125			
Cadmium	101	2.50	ug/L	125.0	0.284	80.7	75-125			
Calcium	106	0.125	mg/L	6.250	105	8.72	75-125			S
Chromium	1270	25.0	ug/L	1250	8.73	101	75-125			
Cobalt	1250	25.0	ug/L	1250	3.65	99.5	75-125			

Quality Control

(Continued)

Client: City, Water, Light & Power
Project: List G20
 2Q18
Work Order: 18D0523

Report Date: 06/06/2018
Matrix: Water

Metals by ICP-MS

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch: B8E0597 - SW3015 (Continued)
Matrix Spike (B8E0597-MS1) (Continued) **Source: 18D0523-06** *Prepared: 05/16/2018 10:40 Analyzed: 05/16/2018 17:22*

Lead	1210	25.0	ug/L	1250	4.38	96.5	75-125			
Molybdenum	1.27	0.0250	mg/L	1.250	ND	101	75-125			
Selenium	1020	25.0	ug/L	1250	ND	82.0	75-125			
Thallium	1240	25.0	ug/L	1250	ND	99.3	75-125			

Matrix Spike Dup (B8E0597-MSD1) **Source: 18D0523-06** *Prepared: 05/16/2018 10:40 Analyzed: 05/16/2018 17:24*

Antimony	1190	25.0	ug/L	1250	ND	95.3	75-125	1.76	20	
Arsenic	1150	25.0	ug/L	1250	ND	92.2	75-125	2.23	20	
Barium	1280	25.0	ug/L	1250	95.6	94.5	75-125	1.81	20	
Beryllium	121	2.50	ug/L	125.0	0.519	96.5	75-125	3.23	20	
Boron	591	12.5	ug/L	625.0	61.6	84.8	75-125	3.59	20	
Cadmium	98.6	2.50	ug/L	125.0	0.284	78.6	75-125	2.59	20	
Calcium	104	0.125	mg/L	6.250	105	NR	75-125	1.76	20	S
Chromium	1240	25.0	ug/L	1250	8.73	98.5	75-125	2.17	20	
Cobalt	1220	25.0	ug/L	1250	3.65	97.0	75-125	2.50	20	
Lead	1210	25.0	ug/L	1250	4.38	96.4	75-125	0.105	20	
Molybdenum	1.28	0.0250	mg/L	1.250	ND	102	75-125	0.798	20	
Selenium	980	25.0	ug/L	1250	ND	78.4	75-125	4.49	20	
Thallium	1250	25.0	ug/L	1250	ND	99.9	75-125	0.600	20	

Post Spike (B8E0597-PS1) **Source: 18D0523-06** *Prepared: 05/16/2018 10:40 Analyzed: 05/16/2018 17:25*

Antimony	282	25.0	ug/L	312.5	ND	90.2	80-120			
Arsenic	302	25.0	ug/L	312.5	ND	96.5	80-120			
Barium	374	25.0	ug/L	312.5	95.6	89.1	80-120			
Beryllium	151	2.50	ug/L	156.2	0.519	96.2	80-120			
Boron	285	12.5	ug/L	312.5	61.6	71.4	80-120			S
Cadmium	252	2.50	ug/L	312.5	0.284	80.6	80-120			
Calcium	99.2	0.125	mg/L	1.562	105	NR	80-120			S
Chromium	300	25.0	ug/L	312.5	8.73	93.3	80-120			
Cobalt	271	25.0	ug/L	312.5	3.65	85.5	80-120			
Lead	291	25.0	ug/L	312.5	4.38	91.7	80-120			
Molybdenum	0.260	0.0250	mg/L	0.3125	ND	83.2	80-120			
Selenium	250	25.0	ug/L	312.5	ND	79.9	80-120			S
Thallium	303	25.0	ug/L	312.5	ND	97.1	80-120			

Quality Control

(Continued)

Client: City, Water, Light & Power
Project: List G20
 2Q18
Work Order: 18D0523

Report Date: 06/06/2018
Matrix: Water

Mercury by CVAA

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch: B8E0293

Blank (B8E0293-BLK1)

Prepared: 05/08/2018 10:00 Analyzed: 05/08/2018 14:54

Mercury < 0.50 0.50 ug/L

LCS (B8E0293-BS1)

Prepared: 05/08/2018 10:00 Analyzed: 05/08/2018 14:57

Mercury 5.15 0.50 ug/L 5.000 103 87.6-112

MRL Check (B8E0293-MRL1)

Prepared: 05/08/2018 10:00 Analyzed: 05/08/2018 14:00

Mercury 0.32 0.50 ug/L 0.2500 130 70-130

Matrix Spike (B8E0293-MS1)

Source: 18D0522-04

Prepared: 05/08/2018 10:00 Analyzed: 05/08/2018 15:57

Mercury 2.09 0.50 ug/L 2.000 ND 104 75-125

Matrix Spike Dup (B8E0293-MSD1)

Source: 18D0522-04

Prepared: 05/08/2018 10:00 Analyzed: 05/08/2018 15:59

Mercury 2.11 0.50 ug/L 2.000 ND 106 75-125 1.10 20

Quality Control

(Continued)

Client: City, Water, Light & Power

Report Date: 06/06/2018

Project: List G20
2Q18

Matrix: Water

Work Order: 18D0523

Anions by Ion Chromatography

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch: B8E0258
Blank (B8E0258-BLK1)
Prepared: 05/07/2018 13:00 Analyzed: 05/07/2018 15:18

Chloride	< 0.500	0.500	mg/L						
Fluoride	< 0.0500	0.0500	mg/L						
Sulfate	< 0.500	0.500	mg/L						

LCS (B8E0258-BS1)
Prepared: 05/07/2018 13:00 Analyzed: 05/07/2018 15:46

Chloride	0.206	0.500	mg/L	0.2000		103	95.2-109		
Fluoride	0.206	0.0500	mg/L	0.2000		103	93.8-110		
Sulfate	0.395	0.500	mg/L	0.4000		98.8	95.2-110		

LCS (B8E0258-BS2)
Prepared: 05/07/2018 13:00 Analyzed: 05/07/2018 16:15

Chloride	5.12	0.500	mg/L	5.000		102	95.2-109		
Fluoride	5.27	0.0500	mg/L	5.000		105	93.8-110		
Sulfate	10.1	0.500	mg/L	10.00		101	95.2-110		

Matrix Spike (B8E0258-MS1)
Source: 18D0523-01
Prepared: 05/07/2018 13:00 Analyzed: 05/07/2018 17:12

Chloride	54.9	5.00	mg/L	25.00	28.8	105	80-120		
Fluoride	27.4	0.500	mg/L	25.00	0.460	108	80-120		
Sulfate	49.1	5.00	mg/L	25.00	23.7	102	80-120		

Matrix Spike Dup (B8E0258-MSD1)
Source: 18D0523-01
Prepared: 05/07/2018 13:00 Analyzed: 05/07/2018 17:41

Chloride	54.8	5.00	mg/L	25.00	28.8	104	80-120	0.146	15
Fluoride	27.7	0.500	mg/L	25.00	0.460	109	80-120	0.907	15
Sulfate	49.0	5.00	mg/L	25.00	23.7	101	80-120	0.163	20

Batch: B8E0279
Blank (B8E0279-BLK1)
Prepared: 05/08/2018 08:27 Analyzed: 05/08/2018 09:24

Sulfate	< 0.500	0.500	mg/L						
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LCS (B8E0279-BS1)
Prepared: 05/08/2018 08:27 Analyzed: 05/08/2018 09:53

Sulfate	0.392	0.500	mg/L	0.4000		98.0	95.2-110		
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LCS (B8E0279-BS2)
Prepared: 05/08/2018 08:27 Analyzed: 05/08/2018 10:21

Sulfate	10.2	0.500	mg/L	10.00		102	95.2-110		
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Matrix Spike (B8E0279-MS1)
Source: 18D0523-02RE1
Prepared: 05/08/2018 08:27 Analyzed: 05/08/2018 12:44

Sulfate	816	50.0	mg/L	250.0	573	97.4	80-120		
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8100 N. Austin Avenue Morton Grove, IL 60053-3203 P 847.967.6666 800.246.0663 F 847.967.6735 www.emt.com

Quality Control

(Continued)

Client: City, Water, Light & Power

Report Date: 06/06/2018

Project: List G20
2Q18

Matrix: Water

Work Order: 18D0523

Anions by Ion Chromatography

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch: B8E0279 (Continued)

Matrix Spike Dup (B8E0279-MSD1)

Source: 18D0523-02RE1

Prepared: 05/08/2018 08:27 Analyzed: 05/08/2018 13:13

Sulfate	800	50.0	mg/L	250.0	573	90.9	80-120	2.02	20	
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Quality Control

(Continued)

Client: City, Water, Light & Power

Report Date: 06/06/2018

Project: List G20
2Q18

Matrix: Water

Work Order: 18D0523

Wet Chemistry

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch: B8E0269

Blank (B8E0269-BLK1)

Prepared: 05/08/2018 13:22 Analyzed: 05/08/2018 13:22

Total Dissolved Solids (Residue, Filterable) < 10.0 10.0 mg/L

LCS (B8E0269-BS1)

Prepared: 05/08/2018 13:22 Analyzed: 05/08/2018 13:22

Total Dissolved Solids (Residue, Filterable) 1020 10.0 mg/L 1000 102 88.4-108

Duplicate (B8E0269-DUP1)

Source: 18D0523-01

Prepared: 05/08/2018 13:22 Analyzed: 05/08/2018 13:22

Total Dissolved Solids (Residue, Filterable) 414 10.0 mg/L 400 3.44 5

Certified Analyses included in this Report

Analyte	CAS #	Certifications
SM2510B in Water		
Specific Conductance		DoD, ILEPA
SM2540C in Water		
Total Dissolved Solids (Residue, Filterable)		DoD, ILEPA, WDNR
SM2550-B in Water		
Temperature		ILEPA
SW6020A in Water		
Antimony	7440-36-0	DoD, ILEPA, ISO, WDNR, NJDEP
Arsenic	7440-38-2	DoD, ILEPA, ISO, AKDEC, WDNR, NJDEP
Barium	7440-39-3	DoD, ILEPA, ISO, AKDEC, WDNR, NJDEP
Beryllium	7440-41-7	DoD, ILEPA, ISO, WDNR, NJDEP
Boron	7440-42-8	DoD, ILEPA, WDNR, NJDEP
Cadmium	7440-43-9	DoD, ILEPA, ISO, AKDEC, WDNR, NJDEP
Calcium	7440-70-2	DoD, ILEPA, NJDEP
Chromium	7440-47-3	DoD, ILEPA, ISO, AKDEC, WDNR, NJDEP
Cobalt	7440-48-4	DoD, ILEPA, ISO, WDNR, NJDEP
Lead	7439-92-1	DoD, ILEPA, ISO, AKDEC, WDNR, NJDEP
Molybdenum	7439-98-7	DoD, ILEPA, WDNR, NJDEP
Selenium	7782-49-2	DoD, ILEPA, ISO, WDNR, NJDEP
Thallium	7440-28-0	DoD, ILEPA, ISO, WDNR, NJDEP
SW7470A in Water		
Mercury	7439-97-6	DoD, ILEPA, WDNR, NJDEP
SW9056A in Water		
Chloride	16887-00-6	DoD, ILEPA, ISO, WDNR, NJDEP
Fluoride	16984-48-8	DoD, ILEPA, WDNR, NJDEP
Sulfate	14808-79-8	DoD, ILEPA, ISO, WDNR, NJDEP

List of Certifications

Code	Description	Number	Expires
AKDEC	State of Alaska, Dept. Environmental Conservation	UST-105	04/30/2018
CPSC	US Consumer Product Safety Commission, Accredited by PJLA Lab No. 1050	L14-56	04/30/2020
DoD	Department of Defense, Accredited by PJLA	L14-55	04/30/2020
ILEPA	State of Illinois, NELAP Accredited Lab No. 100256	003674	08/08/2018
ISO	ISO/IEC 17025, Accredited by PJLA	L14-56	04/30/2020
LELAP	State of Louisiana, NELAP Accredited Lab No. 171344	05015	06/30/2018
NJDEP	State of New Jersey, NELAP Accredited Lab No. IL010	NLC160001	06/30/2018
WDNR	State of Wisconsin Dept of Natural Resources	999888890	08/31/2018

Qualifiers and Definitions

Item	Description
P	The %RPD result is above the laboratory control limits.
S	The recovery is outside of the laboratory control limits.
%Rec	Percent Recovery



Environmental Monitoring and Technologies, Inc.

CHAIN OF CUSTODY
Environmental Monitoring and Technologies, Inc

8100 Austin Ave
Morton Grove
IL, 60053-3203

Phone: 800-246-0663
Fax: 847-967-67-35



18D0523

Page 1 of 1

Lab Work Order Number: **18D0523**

Client Name City, Water, Light & Power	Project Name List G20
Client Contact Eric Staley	Project Number [none]
Address 201 East Lake Shore Drive	Project Description
City Springfield	PO Number
State/Zip IL, 62707-	Shipped By
Phone / Fax (217) 757-8610 / (217) 757-8615	Tracking Number
Sampler P. BRAHMER	Sampler Signature <i>Patrick Brahma</i>

Sample Name or Field ID	Sampled Date	Sampled Time	Sample Type Code	Matrix Code	Container Count	NA:1	P:1	P:3	G:3	Preservation Code	TEMP	pH	Sample Comments
AW-3	05/04/18	0730	GRAB	GW	6	1	1	1	2		57.3	7.41	01A-F
AP-1	05/04/18	0840	GRAB	GW	6	1	1	1	2		56.0	6.65	02A-F
AP-2	05/04/18	0850	GRAB	GW	6	1	1	1	2		54.1	6.62	03A-F
AP-3	05/04/18	0740	GRAB	GW	6	1	1	1	2		55.1	6.77	04A-F
AP-4	05/04/18	0815	GRAB	GW	6	1	1	1	2		54.6	7.17	05A-F
AP-5	05/04/18	0850	GRAB	GW	6	1	1	1	2		56.2	7.73	06A-F

Relinquished By <i>Patrick Brahma</i>	Date/Time 05/18/18	Received By <i>[Signature]</i>	Date/Time 5/14/18	Comments
Relinquished By	Date/Time	Received By	Date/Time	
Relinquished By	Date/Time	Received By	Date/Time	
Cooler Numbers and Temperatures				

Matrix Codes: GW=Groundwater
Preserv. Codes: 1=No Preservative, Store at <6 C, 3=Nitric acid (HNO3) pH <2
G=32 oz clear glass, 1:1 HNO3 to pH <2, NA=No container- field tested, P=16 oz HDPE, P=16 oz HDPE, 1:1 HNO3 to pH <2

Supplies by 1st RTP
RW3 was replaced by RW3 ✓
CALIBRATION
PH 7.077.00.0615

4.C

Sample Receipt Checklist**Work Order: 18D0523**

Printed: 5/4/2018 5:32:46PM

Client: City, Water, Light & Power
Project: List G20

Date Due: 05/18/18 17:00 (10 day TAT)

Received By: Steven Legacki
Logged In By: Jacoby JacksonDate Received: 05/04/18 15:15
Date Logged In: 04/13/18 09:50

Samples Received at:	4°C
How were samples received?	EMT
Custody Seals Present	No
Custody Seals Intact	NA
Sample Cont/Cooler Intact	Yes
COC Present/Complete	Yes
COC/Labels Agree	Yes
Proper Cont/Preservation checked	Yes
Sufficient Sample Volume	Yes
Samples Within Holdtime	Yes
Cooler Temp Within Limits	Yes
VOA Water Vials Received	Yes
VOA Water Vials/Zero Headspace	Yes
PM or Client Contacted	No

COMMENTS92 2
5/4/18

LABORATORY REPORT

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

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STATE CERTIFICATION LIST

State	Certification	State	Certification
Alabama	40700	Missouri	880
Alaska	IN00035	Montana	CERT0026
Arizona	AZ0432	Nebraska	NE-OS-05-04
Arkansas	IN00035	Nevada	IN00035
California	2920	New Hampshire*	2124
Colorado	IN035	New Jersey*	IN598
Colorado Radiochemistry	IN035	New Mexico	IN00035
Connecticut	PH-0132	New York*	11398
Delaware	IN035	North Carolina	18700
Florida*	E87775	North Dakota	R-035
Georgia	929	Ohio	87775
Hawaii	IN035	Oklahoma	D9508
Idaho	IN00035	Oregon (Primary AB)*	4074-001
Illinois*	200001	Pennsylvania*	68-00466
Illinois Microbiology	17767	Puerto Rico	IN00035
Illinois Radiochemistry	IN00035	Rhode Island	LAO00343
Indiana Chemistry	C-71-01	South Carolina	95005
Indiana Microbiology	M-76-07	South Dakota	IN00035
Iowa	098	Tennessee	TN02973
Kansas*	E-10233	Texas*	T104704187-15-8
Kentucky	90056	Texas/TCEQ	TX207
Louisiana*	LA180008	Utah*	IN00035
Maine	IN00035	Vermont	VT-8775
Maryland	209	Virginia*	460275
Massachusetts	M-IN035	Washington	C837
Michigan	9926	West Virginia	9927 C
Minnesota*	018-999-338	Wisconsin	999766900
Mississippi	IN035	Wyoming	IN035
EPA	IN00035		

*NELAP/TNI Recognized Accreditation Bodies



110 South Hill Street
 South Bend, IN 46617
 Tel: (574) 233-4777
 Fax: (574) 233-8207
 1 800 332 4345

Laboratory Report

Client: Environmental Monitoring Technologies
 Attn: Matt Gregory
 8100 North Austin Avenue
 Morton Grove, IL 60053

Report: 415845
 Priority: Standard Written
 Status: Final
 PWS ID: Not Supplied

Sample Information

EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
3930090	18D0523-01	7500-Ra B	05/04/18 09:30	Client	05/08/18 09:30
3930090	18D0523-01	7500-Ra D	05/04/18 09:30	Client	05/08/18 09:30
3930091	18D0523-02	7500-Ra B	05/04/18 06:40	Client	05/08/18 09:30
3930091	18D0523-02	7500-Ra D	05/04/18 06:40	Client	05/08/18 09:30
3930092	18D0523-03	7500-Ra B	05/04/18 07:20	Client	05/08/18 09:30
3930092	18D0523-03	7500-Ra D	05/04/18 07:20	Client	05/08/18 09:30
3930093	18D0523-04	7500-Ra B	05/04/18 07:40	Client	05/08/18 09:30
3930093	18D0523-04	7500-Ra D	05/04/18 07:40	Client	05/08/18 09:30
3930094	18D0523-05	7500-Ra B	05/04/18 08:15	Client	05/08/18 09:30
3930094	18D0523-05	7500-Ra D	05/04/18 08:15	Client	05/08/18 09:30
3930095	18D0523-06	7500-Ra B	05/04/18 08:50	Client	05/08/18 09:30
3930095	18D0523-06	7500-Ra D	05/04/18 08:50	Client	05/08/18 09:30

Report Summary

Note: Sample containers were provided by the client.

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call James Van Fleit at (574) 233-4777.

Note: This report may not be reproduced, except in full, without written approval from EEA.

James Van Fleit ASM

Authorized Signature

Title

06/04/2018

Date

Client Name: Environmental Monitoring Technologies

Report #: 415845

Client Name: Environmental Monitoring Technologies

Report #: 415845

Sampling Point: 18D0523-01

PWS ID: Not Supplied

Radionuclides										
Analyte ID #	Analyte	Method	Reg Limit	MDA 95**	MRL	Result	Units	Preparation Date	Analyzed	EEA ID #
13982-63-3	Radium-226	7500-Ra B	---	0.24	1.0	0.49 ± 0.29	pCi/L	05/22/18 23:34	05/26/18 11:44	3930090
15262-20-1	Radium-228	7500-Ra D	---	0.62	1.0	2.0 ± 0.7	pCi/L	05/22/18 12:00	05/30/18 16:04	3930090
---	Combined Radium	calc.	5 *	0.62	1.0	2.49 ± 0.75	pCi/L	05/22/18 23:34	05/30/18 16:04	3930090

** Minimum Detectable Activity (MDA95) shall be that concentration which can be counted with a precision of plus or minus 100% at the 95 % confidence level.

Sampling Point: 18D0523-02

PWS ID: Not Supplied

Radionuclides										
Analyte ID #	Analyte	Method	Reg Limit	MDA 95**	MRL	Result	Units	Preparation Date	Analyzed	EEA ID #
13982-63-3	Radium-226	7500-Ra B	---	0.29	1.0	1.0 ± 0.4	pCi/L	05/23/18 11:34	05/26/18 12:52	3930091
15262-20-1	Radium-228	7500-Ra D	---	0.51	1.0	3.1 ± 0.6	pCi/L	05/22/18 12:00	05/30/18 19:27	3930091
---	Combined Radium	calc.	5 *	0.51	1.0	4.1 ± 0.8	pCi/L	05/23/18 11:34	05/30/18 19:27	3930091

** Minimum Detectable Activity (MDA95) shall be that concentration which can be counted with a precision of plus or minus 100% at the 95 % confidence level.

Sampling Point: 18D0523-03

PWS ID: Not Supplied

Radionuclides										
Analyte ID #	Analyte	Method	Reg Limit	MDA 95**	MRL	Result	Units	Preparation Date	Analyzed	EEA ID #
13982-63-3	Radium-226	7500-Ra B	---	0.25	1.0	0.75 ± 0.35	pCi/L	05/23/18 11:34	05/26/18 12:52	3930092
15262-20-1	Radium-228	7500-Ra D	---	0.56	1.0	1.4 ± 0.6	pCi/L	05/22/18 12:00	05/30/18 19:27	3930092
---	Combined Radium	calc.	5 *	0.56	1.0	2.15 ± 0.69	pCi/L	05/23/18 11:34	05/30/18 19:27	3930092

** Minimum Detectable Activity (MDA95) shall be that concentration which can be counted with a precision of plus or minus 100% at the 95 % confidence level.

Sampling Point: 18D0523-04

PWS ID: Not Supplied

Radionuclides										
Analyte ID #	Analyte	Method	Reg Limit	MDA 95**	MRL	Result	Units	Preparation Date	Analyzed	EEA ID #
13982-63-3	Radium-226	7500-Ra B	---	0.24	1.0	0.95 ± 0.37	pCi/L	05/23/18 11:34	05/26/18 12:52	3930093
15262-20-1	Radium-228	7500-Ra D	---	0.70	1.0	0.88 ± 0.71	pCi/L	05/22/18 12:00	05/30/18 19:27	3930093
---	Combined Radium	calc.	5 *	0.70	1.0	1.83 ± 0.80	pCi/L	05/23/18 11:34	05/30/18 19:27	3930093

** Minimum Detectable Activity (MDA95) shall be that concentration which can be counted with a precision of plus or minus 100% at the 95 % confidence level.

Client Name: Environmental Monitoring Technologies

Report #: 415845

Sampling Point: 18D0523-05

PWS ID: Not Supplied

Radionuclides										
Analyte ID #	Analyte	Method	Reg Limit	MDA 95**	MRL	Result	Units	Preparation Date	Analyzed	EEA ID #
13982-63-3	Radium-226	7500-Ra B	---	0.21	1.0	0.88 ± 0.33	pCi/L	05/25/18 13:28	06/01/18 09:45	3930094
15262-20-1	Radium-228	7500-Ra D	---	0.62	1.0	0.31 ± 0.60	pCi/L	05/25/18 12:00	05/31/18 18:26	3930094
---	Combined Radium	calc.	5 *	0.62	1.0	1.19 ± 0.68	pCi/L	05/25/18 13:28	06/01/18 09:45	3930094

** Minimum Detectable Activity (MDA95) shall be that concentration which can be counted with a precision of plus or minus 100% at the 95 % confidence level.

Sampling Point: 18D0523-06

PWS ID: Not Supplied

Radionuclides										
Analyte ID #	Analyte	Method	Reg Limit	MDA 95**	MRL	Result	Units	Preparation Date	Analyzed	EEA ID #
13982-63-3	Radium-226	7500-Ra B	---	0.18	1.0	0.93 ± 0.34	pCi/L	05/25/18 13:28	06/01/18 09:45	3930095
15262-20-1	Radium-228	7500-Ra D	---	0.68	1.0	0.45 ± 0.67	pCi/L	05/25/18 12:00	05/31/18 18:26	3930095
---	Combined Radium	calc.	5 *	0.68	1.0	1.38 ± 0.75	pCi/L	05/25/18 13:28	06/01/18 09:45	3930095

** Minimum Detectable Activity (MDA95) shall be that concentration which can be counted with a precision of plus or minus 100% at the 95 % confidence level.

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

Lab Definitions

Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC) - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

Internal Standards (IS) - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

Laboratory Duplicate (LD) - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS) - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB) - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB) - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD) - is a sample aliquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM) - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV) - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS) - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

Surrogate Standard (SS) / Surrogate Analyte (SUR) - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.

343,110

415845

SUBCONTRACT ORDER

Environmental Monitoring and Technologies, Inc
18D0523

SENDING LABORATORY:

Environmental Monitoring and Technologies, Inc
8100 Austin Ave
Morton Grove, IL 60053
Phone: 847-324-3327
Fax: 847.967.6735
Project Manager: Matt Gregory (mgregory@emt.com)

RECEIVING LABORATORY:

Eurofins-Eaton (Underwriters), Subcontract
110 South Hill St (Now Eurofins Eaton Analytical)
South Bend, IN 46617-
Phone :(574) 233-4777
Fax: (847) 407-1916

Client Provided Sample Container

Analysis	Due	Expires	Laboratory ID	Comments
RW-3 Sample ID: 18D0523-01	Water	Sampled:05/04/18 09:30	3930090	
Radiation Testing, Subcontracted 04/20/18 12:00 06/03/18 09:30 PO #: 61075 for Radium 226 and 228				
Containers Supplied: 32 oz clear glass, 1:1 HNC 32 oz clear glass, 1:1 HNC				
AP-1 Sample ID: 18D0523-02	Water	Sampled:05/04/18 06:40	3930091	
Radiation Testing, Subcontracted 04/20/18 12:00 06/03/18 06:40 PO #: 61075 for Radium 226 and 228				
Containers Supplied: 32 oz clear glass, 1:1 HNC 32 oz clear glass, 1:1 HNC				
AP-2 Sample ID: 18D0523-03	Water	Sampled:05/04/18 07:20	3930092	
Radiation Testing, Subcontracted 04/20/18 12:00 06/03/18 07:20 PO #: 61075 for Radium 226 and 228				
Containers Supplied: 32 oz clear glass, 1:1 HNC 32 oz clear glass, 1:1 HNC				
AP-3 Sample ID: 18D0523-04	Water	Sampled:05/04/18 07:40	3930093	
Radiation Testing, Subcontracted 04/20/18 12:00 06/03/18 07:40 PO #: 61075 for Radium 226 and 228				
Containers Supplied: 32 oz HDPE, 1:1 HNO3 to 32 oz HDPE, 1:1 HNO3 to				
AP-4 Sample ID: 18D0523-05	Water	Sampled:05/04/18 08:15	3930094	
Radiation Testing, Subcontracted 04/20/18 12:00 06/03/18 08:15 PO #: 61075 for Radium 226 and 228				
Containers Supplied: 32 oz HDPE, 1:1 HNO3 to 32 oz HDPE, 1:1 HNO3 to				
AP-5 Sample ID: 18D0523-06	Water	Sampled:05/04/18 08:50	3930095	
Radiation Testing, Subcontracted 04/20/18 12:00 06/03/18 08:50 PO #: 61075 for Radium 226 and 228				
Containers Supplied: 32 oz HDPE, 1:1 HNO3 to 32 oz HDPE, 1:1 HNO3 to				

PO # 61075 for 6 samples for Radium 226 + 228

Released By	Date	Received By	Date
<i>[Signature]</i>	5/4/18	K DW	5-8-18 0930
Released By	Date	Received By	Date

AMBIENT

Analytical Report

Eric Staley
City, Water, Light & Power
201 East Lake Shore Drive
Springfield, IL 62707

August 03, 2018

Work Order: 18G0203

RE: List G20
3Q18

Dear Eric Staley:

Enclosed are the analytical reports for the EMT Work Order listed. Also included with this analytical report is a copy of the chain of custody associated with these samples. If you have any questions, please contact me.

Sincerely,



Jacoby Jackson
Project Manager
847.967.6666
jjackson@emt.com

Approved for release: 8/3/2018 11:09:46AM

Approved by,



Matthew Gregory
Technical Manager

The contents of this report apply to the sample(s) analyzed. No duplication is allowed except in its entirety. Detection and Reporting limits are adjusted for sample size used, dilutions and moisture content, if applicable.

State of Illinois, NELAP Accredited Lab No. 100256, Cert No. 003674



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Sample Summary

Sample ID	Sub Lab	Laboratory ID	Matrix	Date Sampled	Date Received
RW-3		18G0203-01	Groundwater	07/09/18 07:20	07/09/18 14:45
AP-2		18G0203-02	Groundwater	07/09/18 08:30	07/09/18 14:45
AP-1		18G0203-03	Groundwater	07/09/18 08:00	07/09/18 14:45
AP-3		18G0203-04	Groundwater	07/09/18 08:55	07/09/18 14:45
AP-4		18G0203-05	Groundwater	07/09/18 09:30	07/09/18 14:45
AP-5		18G0203-06	Groundwater	07/09/18 10:05	07/09/18 14:45
RW-3	Eurofins-Eaton (Underwriters)	18G0203-01	Groundwater	07/09/18 07:20	07/09/18 14:45
AP-2	Eurofins-Eaton (Underwriters)	18G0203-02	Groundwater	07/09/18 08:30	07/09/18 14:45
AP-1	Eurofins-Eaton (Underwriters)	18G0203-03	Groundwater	07/09/18 08:00	07/09/18 14:45
AP-3	Eurofins-Eaton (Underwriters)	18G0203-04	Groundwater	07/09/18 08:55	07/09/18 14:45
AP-4	Eurofins-Eaton (Underwriters)	18G0203-05	Groundwater	07/09/18 09:30	07/09/18 14:45
AP-5	Eurofins-Eaton (Underwriters)	18G0203-06	Groundwater	07/09/18 10:05	07/09/18 14:45

Case Narrative

Client: City, Water, Light & Power

Date: 08/03/2018

Project: List G20

3Q18

Work Order: 18G0203

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

Sample results only relate to the sample(s) received at the laboratory and analytes of interest tested.

Work Order: 18G0203

The samples were received on 07/09/18 14:45. The samples arrived in good condition and properly preserved. The temperature of the cooler at receipt was

<u>Cooler</u>	<u>Temp C°</u>
Default Cooler	3.5

Some of the analyses for this work order were subcontracted. Subcontract data and receipt information is provided. Please also refer to subcontract lab narrative as needed. Samples 18G0203-01, 03, 04, and 06 were decanted prior to the Radium 226 and 228 analysis due to the sediment in the sample that would interfere with the test.

Refer to Qualifiers and Definitions for quality and analytical clarifications or deviations.

Client Sample Results

Client: City, Water, Light & Power
Project: List G20
 3Q18
Work Order: 18G0203

Client Sample ID: RW-3
Report Date: 08/03/2018
Collection Date: 07/09/2018 07:20
Matrix: Groundwater
Lab ID: 18G0203-01

Analyses	Result	EMT Reporting		Qual	Units	Date/Time Analyzed	Batch	Analyst
		Limit						
On Site Analysis								
Method: SM2510B								
Specific Conductance	774				uS/cm	07/09/18 07:20	B8G0471	PB
Method: SM2550-B								
Temperature	57.0				°F	07/09/18 07:20	B8G0471	PB
Method: SM4500-H								
pH	6.82	0.05			pH Units	07/09/18 07:20	B8G0471	PB
Metals by ICP-AES								
Method: SW6010C / SW3015								
Lithium	0.0315				mg/L	07/13/18 16:21	B8G0378	MLB
Metals by ICP-MS								
Method: SW6020A / SW3015								
Antimony	< 25.0	25.0			ug/L	07/13/18 10:53	B8G0377	AG
Arsenic	136	25.0			ug/L	07/13/18 10:53	B8G0377	AG
Barium	226	25.0			ug/L	07/13/18 10:53	B8G0377	AG
Beryllium	< 2.50	2.50			ug/L	07/13/18 10:53	B8G0377	AG
Boron	203	12.5			ug/L	07/13/18 10:53	B8G0377	AG
Cadmium	< 2.50	2.50			ug/L	07/13/18 10:53	B8G0377	AG
Calcium	78.9	1.25			mg/L	07/13/18 11:14	B8G0377	AG
Chromium	< 25.0	25.0			ug/L	07/13/18 10:53	B8G0377	AG
Cobalt	< 25.0	25.0			ug/L	07/13/18 10:53	B8G0377	AG
Lead	< 25.0	25.0			ug/L	07/13/18 10:53	B8G0377	AG
Molybdenum	< 0.0250	0.0250			mg/L	07/13/18 10:53	B8G0377	AG
Selenium	< 25.0	25.0			ug/L	07/13/18 10:53	B8G0377	AG
Thallium	< 25.0	25.0			ug/L	07/13/18 10:53	B8G0377	AG
Mercury by CVAA								
Method: SW7470A								
Mercury	< 0.50	0.50			ug/L	07/12/18 14:59	B8G0344	GSB
Anions by Ion Chromatography								
Method: SW9056A								
Chloride	29.8	5.00			mg/L	07/13/18 18:52	B8G0383	MM7
Fluoride	0.540	0.500			mg/L	07/13/18 18:52	B8G0383	MM7
Sulfate	7.81	5.00			mg/L	07/13/18 18:52	B8G0383	MM7
Wet Chemistry								
Method: SM2540C								
Total Dissolved Solids (Residue, Filterable)	482	10.0			mg/L	07/13/18 14:00	B8G0412	MKP

Eurofins-Eaton (Underwriters), Subcontract

Client Sample Results

(Continued)

Client: City, Water, Light & Power
Project: List G20
 3Q18
Work Order: 18G0203

Client Sample ID: RW-3
Report Date: 08/03/2018
Collection Date: 07/09/2018 07:20
Matrix: Groundwater
Lab ID: 18G0203-01 (Continued)

Analyses	Result	EMT Reporting		Date/Time Analyzed	Batch	Analyst
		Limit	Qual Units			
Eurofins-Eaton (Underwriters), Subcontract						
Subcontracted Analyses						
Method: SM7500						
Radium-226	0.96	0.25	pCi/L	07/19/18 00:00	18G0203-01	UL
Radium-228	2.2	0.49	pCi/L	07/19/18 00:00	18G0203-01	UL

Client Sample Results

(Continued)

Client: City, Water, Light & Power
Project: List G20
 3Q18
Work Order: 18G0203

Client Sample ID: AP-2
Report Date: 08/03/2018
Collection Date: 07/09/2018 08:30
Matrix: Groundwater
Lab ID: 18G0203-02

Analyses	Result	EMT Reporting		Qual	Units	Date/Time Analyzed	Batch	Analyst
		Limit						
On Site Analysis								
Method: SM2510B								
Specific Conductance	1830				uS/cm	07/09/18 08:30	B8G0471	PB
Method: SM2550-B								
Temperature	59.1				°F	07/09/18 08:30	B8G0471	PB
Method: SM4500-H								
pH	6.52	0.05			pH Units	07/09/18 08:30	B8G0471	PB
Metals by ICP-AES								
Method: SW6010C / SW3015								
Lithium	0.00762				mg/L	07/13/18 16:25	B8G0378	MLB
Metals by ICP-MS								
Method: SW6020A / SW3015								
Antimony	< 25.0	25.0			ug/L	07/13/18 10:55	B8G0377	AG
Arsenic	< 25.0	25.0			ug/L	07/13/18 10:55	B8G0377	AG
Barium	109	25.0			ug/L	07/13/18 10:55	B8G0377	AG
Beryllium	< 2.50	2.50			ug/L	07/13/18 10:55	B8G0377	AG
Boron	3630	12.5			ug/L	07/13/18 10:55	B8G0377	AG
Cadmium	< 2.50	2.50			ug/L	07/13/18 10:55	B8G0377	AG
Calcium	262	1.25			mg/L	07/13/18 11:16	B8G0377	AG
Chromium	< 25.0	25.0			ug/L	07/13/18 10:55	B8G0377	AG
Cobalt	< 25.0	25.0			ug/L	07/13/18 10:55	B8G0377	AG
Lead	< 25.0	25.0			ug/L	07/13/18 10:55	B8G0377	AG
Molybdenum	< 0.0250	0.0250			mg/L	07/13/18 10:55	B8G0377	AG
Selenium	< 25.0	25.0			ug/L	07/13/18 10:55	B8G0377	AG
Thallium	< 25.0	25.0			ug/L	07/13/18 10:55	B8G0377	AG
Mercury by CVAA								
Method: SW7470A								
Mercury	< 0.50	0.50			ug/L	07/12/18 15:01	B8G0344	GSB
Anions by Ion Chromatography								
Method: SW9056A								
Chloride	47.0	5.00			mg/L	07/13/18 19:21	B8G0383	MM7
Fluoride	< 0.500	0.500			mg/L	07/13/18 19:21	B8G0383	MM7
Sulfate	656	50.0			mg/L	07/17/18 09:54	B8G0496	MM7
Wet Chemistry								
Method: SM2540C								
Total Dissolved Solids (Residue, Filterable)	1650	10.0			mg/L	07/13/18 14:00	B8G0412	MKP

Eurofins-Eaton (Underwriters), Subcontract

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Client Sample Results

(Continued)

Client: City, Water, Light & Power
Project: List G20
 3Q18
Work Order: 18G0203

Client Sample ID: AP-2
Report Date: 08/03/2018
Collection Date: 07/09/2018 08:30
Matrix: Groundwater
Lab ID: 18G0203-02 (Continued)

Analyses	Result	EMT Reporting		Qual Units	Date/Time Analyzed	Batch	Analyst
		Limit					
Eurofins-Eaton (Underwriters), Subcontract							
Subcontracted Analyses							
Method: SM7500							
Radium-226	0.7	0.14		pCi/L	07/19/18 00:00	18G0203-02	UL
Radium-228	0.65	0.55		pCi/L	07/19/18 00:00	18G0203-02	UL

Client Sample Results

(Continued)

Client: City, Water, Light & Power
Project: List G20
 3Q18
Work Order: 18G0203

Client Sample ID: AP-1
Report Date: 08/03/2018
Collection Date: 07/09/2018 08:00
Matrix: Groundwater
Lab ID: 18G0203-03

Analyses	Result	EMT Reporting		Qual	Units	Date/Time Analyzed	Batch	Analyst
		Limit						
On Site Analysis								
Method: SM2510B								
Specific Conductance	1740				uS/cm	07/09/18 08:00	B8G0471	PB
Method: SM2550-B								
Temperature	58.6				°F	07/09/18 08:00	B8G0471	PB
Method: SM4500-H								
pH	6.71	0.05			pH Units	07/09/18 08:00	B8G0471	PB
Metals by ICP-AES								
Method: SW6010C / SW3015								
Lithium	0.0142				mg/L	07/13/18 16:37	B8G0378	MLB
Metals by ICP-MS								
Method: SW6020A / SW3015								
Antimony	< 25.0	25.0			ug/L	07/13/18 11:07	B8G0377	AG
Arsenic	< 25.0	25.0			ug/L	07/13/18 11:07	B8G0377	AG
Barium	662	25.0			ug/L	07/13/18 11:07	B8G0377	AG
Beryllium	< 2.50	2.50			ug/L	07/13/18 11:07	B8G0377	AG
Boron	19100	12.5			ug/L	07/13/18 11:07	B8G0377	AG
Cadmium	< 2.50	2.50			ug/L	07/13/18 11:07	B8G0377	AG
Calcium	223	1.25			mg/L	07/13/18 11:18	B8G0377	AG
Chromium	< 25.0	25.0			ug/L	07/13/18 11:07	B8G0377	AG
Cobalt	< 25.0	25.0			ug/L	07/13/18 11:07	B8G0377	AG
Lead	< 25.0	25.0			ug/L	07/13/18 11:07	B8G0377	AG
Molybdenum	< 0.0250	0.0250			mg/L	07/13/18 11:07	B8G0377	AG
Selenium	< 25.0	25.0			ug/L	07/13/18 11:07	B8G0377	AG
Thallium	< 25.0	25.0			ug/L	07/13/18 11:07	B8G0377	AG
Mercury by CVAA								
Method: SW7470A								
Mercury	< 0.50	0.50			ug/L	07/12/18 15:03	B8G0344	GSB
Anions by Ion Chromatography								
Method: SW9056A								
Chloride	51.7	5.00			mg/L	07/13/18 21:15	B8G0383	MM7
Fluoride	< 0.500	0.500			mg/L	07/13/18 21:15	B8G0383	MM7
Sulfate	674	50.0			mg/L	07/17/18 10:23	B8G0496	MM7
Wet Chemistry								
Method: SM2540C								
Total Dissolved Solids (Residue, Filterable)	1520	10.0			mg/L	07/13/18 14:00	B8G0412	MKP

Eurofins-Eaton (Underwriters), Subcontract

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Client Sample Results

(Continued)

Client: City, Water, Light & Power
Project: List G20
 3Q18
Work Order: 18G0203

Client Sample ID: AP-1
Report Date: 08/03/2018
Collection Date: 07/09/2018 08:00
Matrix: Groundwater
Lab ID: 18G0203-03 (Continued)

Analyses	Result	EMT Reporting		Qual	Units	Date/Time Analyzed	Batch	Analyst
		Limit						
Eurofins-Eaton (Underwriters), Subcontract								
Subcontracted Analyses								
Method: SM7500								
Radium-226	0.96	0.15			pCi/L	07/19/18 00:00	18G0203-03	UL
Radium-228	1	0.56			pCi/L	07/19/18 00:00	18G0203-03	UL

Client Sample Results

(Continued)

Client: City, Water, Light & Power
Project: List G20
3Q18
Work Order: 18G0203

Client Sample ID: AP-3
Report Date: 08/03/2018
Collection Date: 07/09/2018 08:55
Matrix: Groundwater
Lab ID: 18G0203-04

Analyses	Result	EMT Reporting		Qual	Units	Date/Time Analyzed	Batch	Analyst
		Limit						
On Site Analysis								
Method: SM2510B								
Specific Conductance	1200				uS/cm	07/09/18 08:55	B8G0471	PB
Method: SM2550-B								
Temperature	60.1				°F	07/09/18 08:55	B8G0471	PB
Method: SM4500-H								
pH	6.61	0.05			pH Units	07/09/18 08:55	B8G0471	PB
Metals by ICP-AES								
Method: SW6010C / SW3015								
Lithium	0.00675				mg/L	07/13/18 16:41	B8G0378	MLB
Metals by ICP-MS								
Method: SW6020A / SW3015								
Antimony	< 25.0	25.0			ug/L	07/13/18 11:09	B8G0377	AG
Arsenic	< 25.0	25.0			ug/L	07/13/18 11:09	B8G0377	AG
Barium	122	25.0			ug/L	07/13/18 11:09	B8G0377	AG
Beryllium	< 2.50	2.50			ug/L	07/13/18 11:09	B8G0377	AG
Boron	18800	12.5			ug/L	07/13/18 11:09	B8G0377	AG
Cadmium	< 2.50	2.50			ug/L	07/13/18 11:09	B8G0377	AG
Calcium	158	1.25			mg/L	07/13/18 11:20	B8G0377	AG
Chromium	< 25.0	25.0			ug/L	07/13/18 11:09	B8G0377	AG
Cobalt	< 25.0	25.0			ug/L	07/13/18 11:09	B8G0377	AG
Lead	< 25.0	25.0			ug/L	07/13/18 11:09	B8G0377	AG
Molybdenum	< 0.0250	0.0250			mg/L	07/13/18 11:09	B8G0377	AG
Selenium	< 25.0	25.0			ug/L	07/13/18 11:09	B8G0377	AG
Thallium	< 25.0	25.0			ug/L	07/13/18 11:09	B8G0377	AG
Mercury by CVAA								
Method: SW7470A								
Mercury	< 0.50	0.50			ug/L	07/12/18 15:05	B8G0344	GSB
Anions by Ion Chromatography								
Method: SW9056A								
Chloride	36.7	5.00			mg/L	07/13/18 21:44	B8G0383	MM7
Fluoride	< 0.500	0.500			mg/L	07/13/18 21:44	B8G0383	MM7
Sulfate	401	50.0			mg/L	07/17/18 10:51	B8G0496	MM7
Wet Chemistry								
Method: SM2540C								
Total Dissolved Solids (Residue, Filterable)	778	10.0			mg/L	07/13/18 14:00	B8G0412	MKP

Eurofins-Eaton (Underwriters), Subcontract

Client Sample Results

(Continued)

Client: City, Water, Light & Power
Project: List G20
 3Q18
Work Order: 18G0203

Client Sample ID: AP-3
Report Date: 08/03/2018
Collection Date: 07/09/2018 08:55
Matrix: Groundwater
Lab ID: 18G0203-04 (Continued)

Analyses	Result	EMT Reporting		Qual	Units	Date/Time Analyzed	Batch	Analyst
		Limit						
Eurofins-Eaton (Underwriters), Subcontract								
Subcontracted Analyses								
Method: SM7500								
Radium-226	0.34	0.25			pCi/L	07/19/18 00:00	18G0203-04	UL
Radium-228	0.37	0.81			pCi/L	07/19/18 00:00	18G0203-04	UL

Client Sample Results

(Continued)

Client: City, Water, Light & Power
Project: List G20
 3Q18
Work Order: 18G0203

Client Sample ID: AP-4
Report Date: 08/03/2018
Collection Date: 07/09/2018 09:30
Matrix: Groundwater
Lab ID: 18G0203-05

Analyses	Result	EMT Reporting		Units	Date/Time Analyzed	Batch	Analyst
		Limit	Qual				
On Site Analysis							
Method: SM2510B							
Specific Conductance	900			uS/cm	07/09/18 09:30	B8G0471	PB
Method: SM2550-B							
Temperature	61.0			°F	07/09/18 09:30	B8G0471	PB
Method: SM4500-H							
pH	7.00	0.05		pH Units	07/09/18 09:30	B8G0471	PB
Metals by ICP-AES							
Method: SW6010C / SW3015							
Lithium	0.00775			mg/L	07/13/18 16:45	B8G0378	MLB
Metals by ICP-MS							
Method: SW6020A / SW3015							
Antimony	< 25.0	25.0		ug/L	07/13/18 11:11	B8G0377	AG
Arsenic	< 25.0	25.0		ug/L	07/13/18 11:11	B8G0377	AG
Barium	359	25.0		ug/L	07/13/18 11:11	B8G0377	AG
Beryllium	< 2.50	2.50		ug/L	07/13/18 11:11	B8G0377	AG
Boron	128	12.5		ug/L	07/13/18 11:11	B8G0377	AG
Cadmium	< 2.50	2.50		ug/L	07/13/18 11:11	B8G0377	AG
Calcium	123	1.25		mg/L	07/13/18 11:21	B8G0377	AG
Chromium	< 25.0	25.0		ug/L	07/13/18 11:11	B8G0377	AG
Cobalt	< 25.0	25.0		ug/L	07/13/18 11:11	B8G0377	AG
Lead	< 25.0	25.0		ug/L	07/13/18 11:11	B8G0377	AG
Molybdenum	< 0.0250	0.0250		mg/L	07/13/18 11:11	B8G0377	AG
Selenium	< 25.0	25.0		ug/L	07/13/18 11:11	B8G0377	AG
Thallium	< 25.0	25.0		ug/L	07/13/18 11:11	B8G0377	AG
Mercury by CVAA							
Method: SW7470A							
Mercury	< 0.50	0.50		ug/L	07/12/18 15:07	B8G0344	GSB
Anions by Ion Chromatography							
Method: SW9056A							
Chloride	12.2	5.00		mg/L	07/13/18 22:13	B8G0383	MM7
Fluoride	< 0.500	0.500		mg/L	07/13/18 22:13	B8G0383	MM7
Sulfate	< 5.00	5.00		mg/L	07/13/18 22:13	B8G0383	MM7
Wet Chemistry							
Method: SM2540C							
Total Dissolved Solids (Residue, Filterable)	500	10.0		mg/L	07/13/18 14:00	B8G0412	MKP

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Client Sample Results

(Continued)

Client: City, Water, Light & Power
Project: List G20
 3Q18
Work Order: 18G0203

Client Sample ID: AP-4
Report Date: 08/03/2018
Collection Date: 07/09/2018 09:30
Matrix: Groundwater
Lab ID: 18G0203-05 (Continued)

Analyses	Result	EMT Reporting		Qual Units	Date/Time Analyzed	Batch	Analyst
		Limit					
Eurofins-Eaton (Underwriters), Subcontract							
Subcontracted Analyses							
Method: SM7500							
Radium-226	0.96	0.14		pCi/L	07/19/18 00:00	18G0203-05	UL
Radium-228	1.4	0.45		pCi/L	07/19/18 00:00	18G0203-05	UL

Client Sample Results

(Continued)

Client: City, Water, Light & Power
Project: List G20
 3Q18
Work Order: 18G0203

Client Sample ID: AP-5
Report Date: 08/03/2018
Collection Date: 07/09/2018 10:05
Matrix: Groundwater
Lab ID: 18G0203-06

Analyses	Result	EMT Reporting		Qual	Units	Date/Time Analyzed	Batch	Analyst
		Limit						
On Site Analysis								
Method: SM2510B								
Specific Conductance	673				uS/cm	07/09/18 10:05	B8G0471	PB
Method: SM2550-B								
Temperature	55.5				°F	07/09/18 10:05	B8G0471	PB
Method: SM4500-H								
pH	7.05	0.05			pH Units	07/09/18 10:05	B8G0471	PB
Metals by ICP-AES								
Method: SW6010C / SW3015								
Lithium	0.0131				mg/L	07/13/18 16:49	B8G0378	MLB
Metals by ICP-MS								
Method: SW6020A / SW3015								
Antimony	< 25.0	25.0			ug/L	07/13/18 11:13	B8G0377	AG
Arsenic	< 25.0	25.0			ug/L	07/13/18 11:13	B8G0377	AG
Barium	106	25.0			ug/L	07/13/18 11:13	B8G0377	AG
Beryllium	< 2.50	2.50			ug/L	07/13/18 11:13	B8G0377	AG
Boron	58.5	12.5			ug/L	07/13/18 11:13	B8G0377	AG
Cadmium	< 2.50	2.50			ug/L	07/13/18 11:13	B8G0377	AG
Calcium	101	1.25			mg/L	07/13/18 11:27	B8G0377	AG
Chromium	< 25.0	25.0			ug/L	07/13/18 11:13	B8G0377	AG
Cobalt	< 25.0	25.0			ug/L	07/13/18 11:13	B8G0377	AG
Lead	< 25.0	25.0			ug/L	07/13/18 11:13	B8G0377	AG
Molybdenum	< 0.0250	0.0250			mg/L	07/13/18 11:13	B8G0377	AG
Selenium	< 25.0	25.0			ug/L	07/13/18 11:13	B8G0377	AG
Thallium	< 25.0	25.0			ug/L	07/13/18 11:13	B8G0377	AG
Mercury by CVAA								
Method: SW7470A								
Mercury	< 0.50	0.50			ug/L	07/12/18 15:13	B8G0344	GSB
Anions by Ion Chromatography								
Method: SW9056A								
Chloride	< 5.00	5.00			mg/L	07/13/18 22:41	B8G0383	MM7
Fluoride	< 0.500	0.500			mg/L	07/13/18 22:41	B8G0383	MM7
Sulfate	61.7	5.00			mg/L	07/13/18 22:41	B8G0383	MM7
Wet Chemistry								
Method: SM2540C								
Total Dissolved Solids (Residue, Filterable)	482	10.0			mg/L	07/13/18 14:00	B8G0412	MKP

Eurofins-Eaton (Underwriters), Subcontract

Client Sample Results

(Continued)

Client: City, Water, Light & Power
Project: List G20
 3Q18
Work Order: 18G0203

Client Sample ID: AP-5
Report Date: 08/03/2018
Collection Date: 07/09/2018 10:05
Matrix: Groundwater
Lab ID: 18G0203-06 (Continued)

Analyses	Result	EMT Reporting		Date/Time Analyzed	Batch	Analyst
		Limit	Qual Units			
Eurofins-Eaton (Underwriters), Subcontract						
Subcontracted Analyses						
Method: SM7500						
Radium-226	0.78	0.23	pCi/L	07/19/18 00:00	18G0203-06	UL
Radium-228	0.85	0.56	pCi/L	07/19/18 00:00	18G0203-06	UL

Dates Report

Client: City, Water, Light & Power
Project: List G20
 3Q18
Work Order: 18G0203

Report Date: 08/03/2018

Sample ID	Client Sample ID	Collection	Matrix	Test Name	Leached Prep Date	Prep Date	Analysis Date	Batch ID	Sequence
18G0203-01	RW-3	07/09/18	Groundwater	Radiation Testing, Subcontracted		07/19/18 00:00	07/19/18 00:00	18G0203-01	
				Mercury, Total CCVA		07/12/18 08:00	07/12/18 14:59	B8G0344	S8G0227
				Antimony, Total ICP-MS		07/12/18 14:14	07/13/18 10:53	B8G0377	S8G0247
				Selenium, Total ICP-MS		07/12/18 14:14	07/13/18 10:53		
				Lead, Total ICP-MS		07/12/18 14:14	07/13/18 10:53		
				Molybdenum, Total ICP-MS		07/12/18 14:14	07/13/18 10:53		
				Chromium, Total ICP-MS		07/12/18 14:14	07/13/18 10:53		
				Cobalt, Total ICP-MS		07/12/18 14:14	07/13/18 10:53		
				Cadmium, Total ICP-MS		07/12/18 14:14	07/13/18 10:53		
				Beryllium, Total ICP-MS		07/12/18 14:14	07/13/18 10:53		
				Barium, Total ICP-MS		07/12/18 14:14	07/13/18 10:53		
				Boron, Total ICP-MS		07/12/18 14:14	07/13/18 10:53		
				Arsenic, Total ICP-MS		07/12/18 14:14	07/13/18 10:53		
				Thallium, Total ICP-MS		07/12/18 14:14	07/13/18 10:53		
				Calcium, Total ICP-MS		07/12/18 14:14	07/13/18 11:14		
				Lithium, Total ICP-AES		07/12/18 14:27	07/13/18 16:21	B8G0378	S8G0258
				Chloride, Anions by Ion Chromatography		07/13/18 06:30	07/13/18 18:52	B8G0383	S8G0265
				Fluoride, Anions by Ion Chromatography		07/13/18 06:30	07/13/18 18:52		
				Sulfate (SO4), Anions by Ion Chromatography		07/13/18 06:30	07/13/18 18:52		
				Solids, Total Dissolved (TDS)		07/13/18 14:00	07/13/18 14:00	B8G0412	
Temperature in F, Field		07/09/18 07:20	07/09/18 07:20	B8G0471					
pH, Tested On Site		07/09/18 07:20	07/09/18 07:20						
Conductance, Field		07/09/18 07:20	07/09/18 07:20						
18G0203-02	AP-2	07/09/18		Radiation Testing, Subcontracted		07/19/18 00:00	07/19/18 00:00	18G0203-02	
				Mercury, Total CCVA		07/12/18 08:00	07/12/18 15:01	B8G0344	S8G0227
				Cobalt, Total ICP-MS		07/12/18 14:14	07/13/18 10:55	B8G0377	S8G0247
				Cadmium, Total ICP-MS		07/12/18 14:14	07/13/18 10:55		
				Thallium, Total ICP-MS		07/12/18 14:14	07/13/18 10:55		
				Selenium, Total ICP-MS		07/12/18 14:14	07/13/18 10:55		
				Antimony, Total ICP-MS		07/12/18 14:14	07/13/18 10:55		
				Lead, Total ICP-MS		07/12/18 14:14	07/13/18 10:55		
				Molybdenum, Total ICP-MS		07/12/18 14:14	07/13/18 10:55		
				Beryllium, Total ICP-MS		07/12/18 14:14	07/13/18 10:55		
				Barium, Total ICP-MS		07/12/18 14:14	07/13/18 10:55		
				Boron, Total ICP-MS		07/12/18 14:14	07/13/18 10:55		
				Arsenic, Total ICP-MS		07/12/18 14:14	07/13/18 10:55		
				Chromium, Total ICP-MS		07/12/18 14:14	07/13/18 10:55		
				Calcium, Total ICP-MS		07/12/18 14:14	07/13/18 11:16		
				Lithium, Total ICP-AES		07/12/18 14:27	07/13/18 16:25	B8G0378	S8G0258
				Chloride, Anions by Ion Chromatography		07/13/18 06:30	07/13/18 19:21	B8G0383	S8G0265
				Fluoride, Anions by Ion Chromatography		07/13/18 06:30	07/13/18 19:21		

Dates Report

(Continued)

Client: City, Water, Light & Power

Report Date: 08/03/2018

Project: List G20
3Q18

Work Order: 18G0203

Sample ID	Client Sample ID	Collection	Matrix	Test Name	Leached Prep Date	Prep Date	Analysis Date	Batch ID	Sequence
18G0203-02	AP-2	07/09/18	Groundwater	Solids, Total Dissolved (TDS)		07/13/18 14:00	07/13/18 14:00	B8G0412	
				Conductance, Field		07/09/18 08:30	07/09/18 08:30	B8G0471	
				pH, Tested On Site		07/09/18 08:30	07/09/18 08:30		
				Temperature in F, Field		07/09/18 08:30	07/09/18 08:30		
18G0203-03	AP-1	07/09/18		Sulfate (SO4), Anions by Ion Chromatography		07/17/18 07:42	07/17/18 09:54	B8G0496	S8G0317
				Radiation Testing, Subcontracted		07/19/18 00:00	07/19/18 00:00	18G0203-03	
				Mercury, Total CCVA		07/12/18 08:00	07/12/18 15:03	B8G0344	S8G0227
				Lead, Total ICP-MS		07/12/18 14:14	07/13/18 11:07	B8G0377	S8G0247
				Selenium, Total ICP-MS		07/12/18 14:14	07/13/18 11:07		
				Antimony, Total ICP-MS		07/12/18 14:14	07/13/18 11:07		
				Arsenic, Total ICP-MS		07/12/18 14:14	07/13/18 11:07		
				Boron, Total ICP-MS		07/12/18 14:14	07/13/18 11:07		
				Barium, Total ICP-MS		07/12/18 14:14	07/13/18 11:07		
				Beryllium, Total ICP-MS		07/12/18 14:14	07/13/18 11:07		
				Calcium, Total ICP-MS		07/12/18 14:14	07/13/18 11:18		
				Cadmium, Total ICP-MS		07/12/18 14:14	07/13/18 11:07		
				Cobalt, Total ICP-MS		07/12/18 14:14	07/13/18 11:07		
				Chromium, Total ICP-MS		07/12/18 14:14	07/13/18 11:07		
				Molybdenum, Total ICP-MS		07/12/18 14:14	07/13/18 11:07		
				Thallium, Total ICP-MS		07/12/18 14:14	07/13/18 11:07		
				Lithium, Total ICP-AES		07/12/18 14:27	07/13/18 16:37	B8G0378	S8G0258
				Chloride, Anions by Ion Chromatography		07/13/18 06:30	07/13/18 21:15	B8G0383	S8G0265
				Fluoride, Anions by Ion Chromatography		07/13/18 06:30	07/13/18 21:15		
				18G0203-04	AP-3	07/09/18		Solids, Total Dissolved (TDS)	
Temperature in F, Field		07/09/18 08:00	07/09/18 08:00					B8G0471	
Conductance, Field		07/09/18 08:00	07/09/18 08:00						
pH, Tested On Site		07/09/18 08:00	07/09/18 08:00						
Sulfate (SO4), Anions by Ion Chromatography		07/17/18 07:42	07/17/18 10:23					B8G0496	S8G0317
Radiation Testing, Subcontracted		07/19/18 00:00	07/19/18 00:00					18G0203-04	
Mercury, Total CCVA		07/12/18 08:00	07/12/18 15:05					B8G0344	S8G0227
Antimony, Total ICP-MS		07/12/18 14:14	07/13/18 11:09					B8G0377	S8G0247
Selenium, Total ICP-MS		07/12/18 14:14	07/13/18 11:09						
Lead, Total ICP-MS		07/12/18 14:14	07/13/18 11:09						
Molybdenum, Total ICP-MS		07/12/18 14:14	07/13/18 11:09						
Chromium, Total ICP-MS		07/12/18 14:14	07/13/18 11:09						
Cobalt, Total ICP-MS		07/12/18 14:14	07/13/18 11:09						
Cadmium, Total ICP-MS		07/12/18 14:14	07/13/18 11:09						
Beryllium, Total ICP-MS		07/12/18 14:14	07/13/18 11:09						
Barium, Total ICP-MS		07/12/18 14:14	07/13/18 11:09						
Boron, Total ICP-MS		07/12/18 14:14	07/13/18 11:09						
Arsenic, Total ICP-MS		07/12/18 14:14	07/13/18 11:09						
Thallium, Total ICP-MS		07/12/18 14:14	07/13/18 11:09						

Dates Report

(Continued)

Client: City, Water, Light & Power

Report Date: 08/03/2018

Project: List G20
3Q18

Work Order: 18G0203

Sample ID	Client Sample ID	Collection	Matrix	Test Name	Leached Prep Date	Prep Date	Analysis Date	Batch ID	Sequence
18G0203-04	AP-3	07/09/18	Groundwater	Calcium, Total ICP-MS		07/12/18 14:14	07/13/18 11:20	B8G0377	S8G0247
				Lithium, Total ICP-AES		07/12/18 14:27	07/13/18 16:41	B8G0378	S8G0258
				Chloride, Anions by Ion Chromatography		07/13/18 06:30	07/13/18 21:44	B8G0383	S8G0265
				Fluoride, Anions by Ion Chromatography		07/13/18 06:30	07/13/18 21:44		
				Solids, Total Dissolved (TDS)		07/13/18 14:00	07/13/18 14:00	B8G0412	
				Temperature in F, Field		07/09/18 08:55	07/09/18 08:55	B8G0471	
				pH, Tested On Site		07/09/18 08:55	07/09/18 08:55		
				Conductance, Field		07/09/18 08:55	07/09/18 08:55		
				Sulfate (SO ₄), Anions by Ion Chromatography		07/17/18 07:42	07/17/18 10:51	B8G0496	S8G0317
				18G0203-05	AP-4	07/09/18	Groundwater	Radiation Testing, Subcontracted	
Mercury, Total CCVA		07/12/18 08:00	07/12/18 15:07					B8G0344	S8G0227
Cobalt, Total ICP-MS		07/12/18 14:14	07/13/18 11:11					B8G0377	S8G0247
Cadmium, Total ICP-MS		07/12/18 14:14	07/13/18 11:11						
Thallium, Total ICP-MS		07/12/18 14:14	07/13/18 11:11						
Selenium, Total ICP-MS		07/12/18 14:14	07/13/18 11:11						
Antimony, Total ICP-MS		07/12/18 14:14	07/13/18 11:11						
Lead, Total ICP-MS		07/12/18 14:14	07/13/18 11:11						
Molybdenum, Total ICP-MS		07/12/18 14:14	07/13/18 11:11						
Beryllium, Total ICP-MS		07/12/18 14:14	07/13/18 11:11						
Barium, Total ICP-MS		07/12/18 14:14	07/13/18 11:11						
Boron, Total ICP-MS		07/12/18 14:14	07/13/18 11:11						
Arsenic, Total ICP-MS		07/12/18 14:14	07/13/18 11:11						
Chromium, Total ICP-MS		07/12/18 14:14	07/13/18 11:11						
Calcium, Total ICP-MS		07/12/18 14:14	07/13/18 11:21						
Lithium, Total ICP-AES		07/12/18 14:27	07/13/18 16:45					B8G0378	S8G0258
Chloride, Anions by Ion Chromatography		07/13/18 06:30	07/13/18 22:13					B8G0383	S8G0265
Fluoride, Anions by Ion Chromatography		07/13/18 06:30	07/13/18 22:13						
Sulfate (SO ₄), Anions by Ion Chromatography		07/13/18 06:30	07/13/18 22:13						
Solids, Total Dissolved (TDS)		07/13/18 14:00	07/13/18 14:00					B8G0412	
Conductance, Field		07/09/18 09:30	07/09/18 09:30	B8G0471					
pH, Tested On Site		07/09/18 09:30	07/09/18 09:30						
Temperature in F, Field		07/09/18 09:30	07/09/18 09:30						
18G0203-06	AP-5	07/09/18	Groundwater	Radiation Testing, Subcontracted		07/19/18 00:00	07/19/18 00:00	18G0203-06	
				Mercury, Total CCVA		07/12/18 08:00	07/12/18 15:13	B8G0344	S8G0227
				Lead, Total ICP-MS		07/12/18 14:14	07/13/18 11:13	B8G0377	S8G0247
				Selenium, Total ICP-MS		07/12/18 14:14	07/13/18 11:13		
				Antimony, Total ICP-MS		07/12/18 14:14	07/13/18 11:13		
				Arsenic, Total ICP-MS		07/12/18 14:14	07/13/18 11:13		
				Boron, Total ICP-MS		07/12/18 14:14	07/13/18 11:13		
				Barium, Total ICP-MS		07/12/18 14:14	07/13/18 11:13		
				Beryllium, Total ICP-MS		07/12/18 14:14	07/13/18 11:13		

Dates Report

(Continued)

Client: City, Water, Light & Power

Report Date: 08/03/2018

Project: List G20
3Q18

Work Order: 18G0203

Sample ID	Client Sample ID	Collection	Matrix	Test Name	Leached Prep Date	Prep Date	Analysis Date	Batch ID	Sequence
18G0203-06	AP-5	07/09/18	Groundwater	Calcium, Total ICP-MS		07/12/18 14:14	07/13/18 11:27	B8G0377	S8G0247
				Cadmium, Total ICP-MS		07/12/18 14:14	07/13/18 11:13		
				Cobalt, Total ICP-MS		07/12/18 14:14	07/13/18 11:13		
				Chromium, Total ICP-MS		07/12/18 14:14	07/13/18 11:13		
				Molybdenum, Total ICP-MS		07/12/18 14:14	07/13/18 11:13		
				Thallium, Total ICP-MS		07/12/18 14:14	07/13/18 11:13		
				Lithium, Total ICP-AES		07/12/18 14:27	07/13/18 16:49	B8G0378	S8G0258
				Chloride, Anions by Ion Chromatography		07/13/18 06:30	07/13/18 22:41	B8G0383	S8G0265
				Fluoride, Anions by Ion Chromatography		07/13/18 06:30	07/13/18 22:41		
				Sulfate (SO ₄), Anions by Ion Chromatography		07/13/18 06:30	07/13/18 22:41		
				Solids, Total Dissolved (TDS)		07/13/18 14:00	07/13/18 14:00	B8G0412	
				Temperature in F, Field		07/09/18 10:05	07/09/18 10:05	B8G0471	
				Conductance, Field		07/09/18 10:05	07/09/18 10:05		
				pH, Tested On Site		07/09/18 10:05	07/09/18 10:05		

Quality Control

Client: City, Water, Light & Power
Project: List G20
 3Q18
Work Order: 18G0203

Report Date: 08/03/2018
Matrix: Water

Metals by ICP-AES

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch: B8G0378 - SW3015

Blank (B8G0378-BLK1) Prepared: 07/12/2018 14:27 Analyzed: 07/13/2018 15:52

Lithium	-0.000125		mg/L							
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LCS (B8G0378-BS1) Prepared: 07/12/2018 14:27 Analyzed: 07/13/2018 15:56

Lithium	1.52		mg/L	1.250		122	80-120			S
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MRL Check (B8G0378-MRL1) Prepared: 07/12/2018 14:27 Analyzed: 07/13/2018 16:00

Lithium	0.0759		mg/L	0.06250		121	0-200			
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Matrix Spike (B8G0378-MS1) Source: 18G0203-02 Prepared: 07/12/2018 14:27 Analyzed: 07/13/2018 16:29

Lithium	1.51		mg/L	1.250	0.00762	120	75-125			
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Matrix Spike Dup (B8G0378-MSD1) Source: 18G0203-02 Prepared: 07/12/2018 14:27 Analyzed: 07/13/2018 16:33

Lithium	1.52		mg/L	1.250	0.00762	121	75-125	0.330	20	
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Quality Control

(Continued)

Client: City, Water, Light & Power
Project: List G20
 3Q18
Work Order: 18G0203

Report Date: 08/03/2018
Matrix: Water

Metals by ICP-MS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch: B8G0377 - SW3015

Blank (B8G0377-BLK1)

Prepared: 07/12/2018 14:14 Analyzed: 07/13/2018 10:22

Antimony	< 25.0	25.0	ug/L							
Arsenic	< 25.0	25.0	ug/L							
Barium	< 25.0	25.0	ug/L							
Beryllium	< 2.50	2.50	ug/L							
Boron	< 12.5	12.5	ug/L							
Cadmium	< 2.50	2.50	ug/L							
Calcium	< 0.125	0.125	mg/L							
Chromium	< 25.0	25.0	ug/L							
Cobalt	< 25.0	25.0	ug/L							
Lead	< 25.0	25.0	ug/L							
Molybdenum	< 0.0250	0.0250	mg/L							
Selenium	< 25.0	25.0	ug/L							
Thallium	< 25.0	25.0	ug/L							

LCS (B8G0377-BS1)

Prepared: 07/12/2018 14:14 Analyzed: 07/13/2018 10:24

Antimony	1280	25.0	ug/L	1250	102	85.9-115
Arsenic	1220	25.0	ug/L	1250	97.6	85-101
Barium	1330	25.0	ug/L	1250	107	90.2-111
Beryllium	117	2.50	ug/L	125.0	93.5	83-121
Boron	617	12.5	ug/L	625.0	98.7	73-130
Cadmium	122	2.50	ug/L	125.0	97.4	85-107
Calcium	6.33	0.125	mg/L	6.250	101	87-118
Chromium	1280	25.0	ug/L	1250	102	86.9-110
Cobalt	1290	25.0	ug/L	1250	103	86-115
Lead	1320	25.0	ug/L	1250	106	87.4-115
Molybdenum	1.44	0.0250	mg/L	1.250	115	94.4-115
Selenium	1060	25.0	ug/L	1250	84.5	80-120
Thallium	1290	25.0	ug/L	1250	104	82-116

LCS (B8G0377-BS2)

Prepared: 07/12/2018 14:14 Analyzed: 07/13/2018 11:28

Calcium	6.39	0.125	mg/L	6.250	102	87-118
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Serial Dilution (B8G0377-DUP1)

Source: 18G0203-02

Prepared: 07/12/2018 14:14 Analyzed: 07/13/2018 11:00

Antimony	< 20.0	125	ug/L	ND		10
Arsenic	< 20.0	125	ug/L	ND		10
Barium	115	125	ug/L	109	5.21	10
Beryllium	< 2.00	12.5	ug/L	ND		10
Boron	3860	62.5	ug/L	3630	6.08	10
Cadmium	< 1.25	12.5	ug/L	ND		10
Calcium	275	0.625	mg/L	284	3.07	10
Chromium	< 12.5	125	ug/L	ND		10
Cobalt	< 15.0	125	ug/L	ND		10

Quality Control

(Continued)

Client: City, Water, Light & Power
Project: List G20
 3Q18
Work Order: 18G0203

Report Date: 08/03/2018
Matrix: Water

Metals by ICP-MS

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch: B8G0377 - SW3015 (Continued)
Serial Dilution (B8G0377-DUP1) (Continued)
Source: 18G0203-02

Prepared: 07/12/2018 14:14 Analyzed: 07/13/2018 11:00

Lead	< 2.00	125	ug/L		ND				10	
Molybdenum	< 0.0125	0.125	mg/L		ND				10	
Selenium	< 17.5	125	ug/L		ND				10	
Thallium	< 1.75	125	ug/L		ND				10	

MRL Check (B8G0377-MRL1)

Prepared: 07/12/2018 14:14 Analyzed: 07/13/2018 10:25

Antimony	35.0	25.0	ug/L	31.25		112	70-130			
Arsenic	33.0	25.0	ug/L	31.25		106	70-130			
Barium	33.6	25.0	ug/L	31.25		108	70-130			
Beryllium	3.23	2.50	ug/L	3.125		103	70-130			
Boron	18.9	12.5	ug/L	15.62		121	70-130			
Cadmium	3.19	2.50	ug/L	3.125		102	70-130			
Calcium	0.176	0.125	mg/L	0.1250		141	70-130			S
Chromium	33.6	25.0	ug/L	31.25		108	70-130			
Cobalt	25.5	25.0	ug/L	25.00		102	70-130			
Lead	34.3	25.0	ug/L	31.25		110	70-130			
Molybdenum	0.0281	0.0250	mg/L	0.02500		112	70-130			
Selenium	29.2	25.0	ug/L	31.25		93.6	70-130			
Thallium	32.9	25.0	ug/L	31.25		105	70-130			

Matrix Spike (B8G0377-MS1)
Source: 18G0203-02

Prepared: 07/12/2018 14:14 Analyzed: 07/13/2018 10:57

Antimony	1310	25.0	ug/L	1250	ND	105	75-125			
Arsenic	1250	25.0	ug/L	1250	ND	100	75-125			
Barium	1430	25.0	ug/L	1250	109	106	75-125			
Beryllium	114	2.50	ug/L	125.0	ND	91.2	75-125			
Boron	4180	12.5	ug/L	625.0	3630	88.6	75-125			
Cadmium	116	2.50	ug/L	125.0	ND	92.6	75-125			
Calcium	289	0.125	mg/L	6.250	284	83.9	75-125			
Chromium	1190	25.0	ug/L	1250	ND	95.3	75-125			
Cobalt	1200	25.0	ug/L	1250	11.4	94.9	75-125			
Lead	1330	25.0	ug/L	1250	0.881	107	75-125			
Molybdenum	1.44	0.0250	mg/L	1.250	ND	115	75-125			
Selenium	1070	25.0	ug/L	1250	ND	85.3	75-125			
Thallium	1330	25.0	ug/L	1250	ND	106	75-125			

Matrix Spike Dup (B8G0377-MSD1)
Source: 18G0203-02

Prepared: 07/12/2018 14:14 Analyzed: 07/13/2018 10:59

Antimony	1340	25.0	ug/L	1250	ND	107	75-125	2.14	20	
Arsenic	1240	25.0	ug/L	1250	ND	99.2	75-125	0.872	20	
Barium	1460	25.0	ug/L	1250	109	108	75-125	2.03	20	
Beryllium	115	2.50	ug/L	125.0	ND	91.8	75-125	0.733	20	
Boron	4250	12.5	ug/L	625.0	3630	98.8	75-125	1.51	20	
Cadmium	118	2.50	ug/L	125.0	ND	94.2	75-125	1.75	20	

Quality Control

(Continued)

Client: City, Water, Light & Power

Report Date: 08/03/2018

Project: List G20
3Q18

Matrix: Water

Work Order: 18G0203

Metals by ICP-MS

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch: B8G0377 - SW3015 (Continued)
Matrix Spike Dup (B8G0377-MSD1) (Continued)

Source: 18G0203-02

Prepared: 07/12/2018 14:14 Analyzed: 07/13/2018 10:59

Calcium	294	0.125	mg/L	6.250	284	165	75-125	1.74	20	S
Chromium	1200	25.0	ug/L	1250	ND	96.0	75-125	0.749	20	
Cobalt	1190	25.0	ug/L	1250	11.4	94.6	75-125	0.248	20	
Lead	1370	25.0	ug/L	1250	0.881	110	75-125	2.87	20	
Molybdenum	1.44	0.0250	mg/L	1.250	ND	115	75-125	0.0241	20	
Selenium	1060	25.0	ug/L	1250	ND	84.7	75-125	0.713	20	
Thallium	1340	25.0	ug/L	1250	ND	107	75-125	1.14	20	

Post Spike (B8G0377-PS1)

Source: 18G0203-02

Prepared: 07/12/2018 14:14 Analyzed: 07/13/2018 11:06

Antimony	296	25.0	ug/L	312.5	ND	94.7	80-120			
Arsenic	308	25.0	ug/L	312.5	ND	98.7	80-120			
Barium	408	25.0	ug/L	312.5	109	95.7	80-120			
Beryllium	139	2.50	ug/L	156.2	ND	89.0	80-120			
Boron	3850	12.5	ug/L	312.5	3630	71.8	80-120			S
Cadmium	282	2.50	ug/L	312.5	ND	90.4	80-120			
Calcium	283	0.125	mg/L	1.562	284	NR	80-120			S
Chromium	282	25.0	ug/L	312.5	ND	90.4	80-120			
Cobalt	307	25.0	ug/L	312.5	11.4	94.5	80-120			
Lead	335	25.0	ug/L	312.5	0.881	107	80-120			
Molybdenum	0.313	0.0250	mg/L	0.3125	ND	100	80-120			
Selenium	278	25.0	ug/L	312.5	ND	89.1	80-120			
Thallium	342	25.0	ug/L	312.5	ND	110	80-120			

Quality Control

(Continued)

Client: City, Water, Light & Power
Project: List G20
 3Q18
Work Order: 18G0203

Report Date: 08/03/2018
Matrix: Water

Mercury by CVAA

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch: B8G0344										
Blank (B8G0344-BLK1) <i>Prepared: 07/12/2018 08:00 Analyzed: 07/12/2018 14:53</i>										
Mercury	< 0.50	0.50	ug/L							
TCLP Blank (B8G0344-BLK2) <i>Prepared: 07/12/2018 08:00 Analyzed: 07/12/2018 16:10</i>										
Mercury	< 0.10	0.50	ug/L							
TCLP Blank (B8G0344-BLK3) <i>Prepared: 07/12/2018 08:00 Analyzed: 07/12/2018 16:11</i>										
Mercury	0.61	0.50	ug/L							
LCS (B8G0344-BS1) <i>Prepared: 07/12/2018 08:00 Analyzed: 07/12/2018 14:55</i>										
Mercury	5.08	0.50	ug/L	5.000		102	87.6-112			B
MRL Check (B8G0344-MRL1) <i>Prepared: 07/12/2018 08:00 Analyzed: 07/12/2018 14:39</i>										
Mercury	0.28	0.50	ug/L	0.2500		110	70-130			B
Matrix Spike (B8G0344-MS1) Source: 18G0203-05 <i>Prepared: 07/12/2018 08:00 Analyzed: 07/12/2018 15:09</i>										
Mercury	1.52	0.50	ug/L	2.000	ND	76.2	75-125			B
Matrix Spike (B8G0344-MS2) Source: 18G0365-01 <i>Prepared: 07/12/2018 08:00 Analyzed: 07/12/2018 15:42</i>										
Mercury	2.04	0.50	ug/L	2.000	ND	102	75-125			B
Matrix Spike (B8G0344-MS3) Source: 18G0274-01 <i>Prepared: 07/12/2018 08:00 Analyzed: 07/12/2018 16:03</i>										
Mercury	2.21	0.50	ug/L	2.000	ND	111	75-125			B
Matrix Spike Dup (B8G0344-MSD1) Source: 18G0203-05 <i>Prepared: 07/12/2018 08:00 Analyzed: 07/12/2018 15:11</i>										
Mercury	1.59	0.50	ug/L	2.000	ND	79.6	75-125	4.36	20	B
Matrix Spike Dup (B8G0344-MSD2) Source: 18G0365-01 <i>Prepared: 07/12/2018 08:00 Analyzed: 07/12/2018 15:54</i>										
Mercury	1.97	0.50	ug/L	2.000	ND	98.4	75-125	3.30	20	B
Matrix Spike Dup (B8G0344-MSD3) Source: 18G0274-01 <i>Prepared: 07/12/2018 08:00 Analyzed: 07/12/2018 16:05</i>										
Mercury	2.14	0.50	ug/L	2.000	ND	107	75-125	3.50	20	B
Post Spike (B8G0344-PS1) Source: 18G0203-05 <i>Prepared: 07/12/2018 08:00 Analyzed: 07/12/2018 16:28</i>										
Mercury	0.587		ug/L	0.5556	0.00417	105	80-120			B

Quality Control

(Continued)

Client: City, Water, Light & Power
Project: List G20
 3Q18
Work Order: 18G0203

Report Date: 08/03/2018
Matrix: Water

Anions by Ion Chromatography

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch: B8G0383

Blank (B8G0383-BLK1)

Prepared: 07/13/2018 06:30 Analyzed: 07/13/2018 07:54

Chloride	< 0.500	0.500	mg/L						
Fluoride	< 0.0500	0.0500	mg/L						
Sulfate	< 0.500	0.500	mg/L						

LCS (B8G0383-BS1)

Prepared: 07/13/2018 06:30 Analyzed: 07/13/2018 08:23

Chloride	0.214	0.500	mg/L	0.2000		107	95.2-109		
Fluoride	0.213	0.0500	mg/L	0.2000		106	93.8-110		
Sulfate	0.426	0.500	mg/L	0.4000		106	95.2-110		

LCS (B8G0383-BS2)

Prepared: 07/13/2018 06:30 Analyzed: 07/13/2018 08:52

Chloride	5.12	0.500	mg/L	5.000		102	95.2-109		
Fluoride	5.28	0.0500	mg/L	5.000		106	93.8-110		
Sulfate	10.3	0.500	mg/L	10.00		103	95.2-110		

Matrix Spike (B8G0383-MS1)

Source: 18G0311-04

Prepared: 07/13/2018 06:30 Analyzed: 07/13/2018 16:01

Chloride	371	50.0	mg/L	250.0	114	103	80-120		
Fluoride	273	5.00	mg/L	250.0	ND	109	80-120		
Sulfate	320	50.0	mg/L	250.0	59.9	104	80-120		

Matrix Spike (B8G0383-MS2)

Source: 18G0367-01

Prepared: 07/13/2018 06:30 Analyzed: 07/13/2018 17:26

Chloride	361	50.0	mg/L	250.0	113	99.2	80-120		
Fluoride	267	5.00	mg/L	250.0	ND	107	80-120		
Sulfate	310	50.0	mg/L	250.0	56.3	101	80-120		

Matrix Spike Dup (B8G0383-MSD1)

Source: 18G0311-04

Prepared: 07/13/2018 06:30 Analyzed: 07/13/2018 16:29

Chloride	369	50.0	mg/L	250.0	114	102	80-120	0.324	15
Fluoride	272	5.00	mg/L	250.0	ND	109	80-120	0.367	15
Sulfate	319	50.0	mg/L	250.0	59.9	104	80-120	0.313	20

Matrix Spike Dup (B8G0383-MSD2)

Source: 18G0367-01

Prepared: 07/13/2018 06:30 Analyzed: 07/13/2018 17:55

Chloride	368	50.0	mg/L	250.0	113	102	80-120	1.84	15
Fluoride	274	5.00	mg/L	250.0	ND	109	80-120	2.29	15
Sulfate	316	50.0	mg/L	250.0	56.3	104	80-120	2.01	20

Batch: B8G0496

Blank (B8G0496-BLK1)

Prepared: 07/17/2018 07:42 Analyzed: 07/17/2018 08:00

Sulfate	< 0.500	0.500	mg/L						
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Quality Control

(Continued)

Client: City, Water, Light & Power
Project: List G20
 3Q18
Work Order: 18G0203

Report Date: 08/03/2018
Matrix: Water

Anions by Ion Chromatography

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch: B8G0496 (Continued)
LCS (B8G0496-BS1)
Prepared: 07/17/2018 07:42 Analyzed: 07/17/2018 08:28

Sulfate	0.407	0.500	mg/L	0.4000		102	95.2-110			
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LCS (B8G0496-BS2)
Prepared: 07/17/2018 07:42 Analyzed: 07/17/2018 08:57

Sulfate	10.3	0.500	mg/L	10.00		103	95.2-110			
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Matrix Spike (B8G0496-MS1)
Source: 18G0491-04
Prepared: 07/17/2018 07:42 Analyzed: 07/17/2018 12:17

Sulfate	326	50.0	mg/L	250.0	69.1	103	80-120			
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Matrix Spike (B8G0496-MS2)
Source: 18G0381-06
Prepared: 07/17/2018 07:42 Analyzed: 07/17/2018 18:57

Sulfate	106	5.00	mg/L	25.00	79.0	108	80-120			
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Matrix Spike Dup (B8G0496-MSD1)
Source: 18G0491-04
Prepared: 07/17/2018 07:42 Analyzed: 07/17/2018 12:45

Sulfate	327	50.0	mg/L	250.0	69.1	103	80-120	0.0919	20	
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Matrix Spike Dup (B8G0496-MSD2)
Source: 18G0381-06
Prepared: 07/17/2018 07:42 Analyzed: 07/17/2018 19:26

Sulfate	105	5.00	mg/L	25.00	79.0	103	80-120	1.15	20	
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Quality Control

(Continued)

Client: City, Water, Light & Power

Report Date: 08/03/2018

Project: List G20
3Q18

Matrix: Water

Work Order: 18G0203

Wet Chemistry

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch: B8G0412

Blank (B8G0412-BLK1)

Prepared: 07/13/2018 14:00 Analyzed: 07/13/2018 14:00

Total Dissolved Solids (Residue, Filterable) < 10.0 10.0 mg/L

LCS (B8G0412-BS1)

Prepared: 07/13/2018 14:00 Analyzed: 07/13/2018 14:00

Total Dissolved Solids (Residue, Filterable) 1150 10.0 mg/L 1006 114 88.4-108 S

Duplicate (B8G0412-DUP1)

Source: 18G0202-12

Prepared: 07/13/2018 14:00 Analyzed: 07/13/2018 14:00

Total Dissolved Solids (Residue, Filterable) 468 10.0 mg/L 482 2.95 5

Duplicate (B8G0412-DUP2)

Source: 18G0429-01

Prepared: 07/13/2018 14:00 Analyzed: 07/13/2018 14:00

Total Dissolved Solids (Residue, Filterable) 590 10.0 mg/L 578 2.05 5

Certified Analyses included in this Report

Analyte	CAS #	Certifications
SM2510B in Water		
Specific Conductance		DoD, ILEPA
SM2540C in Water		
Total Dissolved Solids (Residue, Filterable)		DoD, ILEPA, WDNR
SM2550-B in Water		
Temperature		ILEPA
SW6020A in Water		
Antimony	7440-36-0	DoD, ILEPA, ISO, WDNR, NJDEP
Arsenic	7440-38-2	DoD, ILEPA, ISO, AKDEC, WDNR, NJDEP
Barium	7440-39-3	DoD, ILEPA, ISO, AKDEC, WDNR, NJDEP
Beryllium	7440-41-7	DoD, ILEPA, ISO, WDNR, NJDEP
Boron	7440-42-8	DoD, ILEPA, WDNR, NJDEP
Cadmium	7440-43-9	DoD, ILEPA, ISO, AKDEC, WDNR, NJDEP
Calcium	7440-70-2	DoD, ILEPA, NJDEP
Chromium	7440-47-3	DoD, ILEPA, ISO, AKDEC, WDNR, NJDEP
Cobalt	7440-48-4	DoD, ILEPA, ISO, WDNR, NJDEP
Lead	7439-92-1	DoD, ILEPA, ISO, AKDEC, WDNR, NJDEP
Molybdenum	7439-98-7	DoD, ILEPA, WDNR, NJDEP
Selenium	7782-49-2	DoD, ILEPA, ISO, WDNR, NJDEP
Thallium	7440-28-0	DoD, ILEPA, ISO, WDNR, NJDEP
SW7470A in Water		
Mercury	7439-97-6	DoD, ILEPA, WDNR, NJDEP
SW9056A in Water		
Chloride	16887-00-6	DoD, ILEPA, ISO, WDNR, NJDEP
Fluoride	16984-48-8	DoD, ILEPA, WDNR, NJDEP
Sulfate	14808-79-8	DoD, ILEPA, ISO, WDNR, NJDEP

List of Certifications

Code	Description	Number	Expires
AKDEC	State of Alaska, Dept. Environmental Conservation	UST-105	04/30/2020
CPSC	US Consumer Product Safety Commission, Accredited by PJLA Lab No. 1050	L14-56	04/30/2020
DoD	Department of Defense, Accredited by PJLA	L14-55	04/30/2020
ILEPA	State of Illinois, NELAP Accredited Lab No. 100256	003674	08/08/2018
ISO	ISO/IEC 17025, Accredited by PJLA	L14-56	04/30/2020
LELAP	State of Louisiana, NELAP Accredited Lab No. 171344	05015	06/30/2018
NJDEP	State of New Jersey, NELAP Accredited Lab No. IL010	NLC160001	06/30/2018
WDNR	State of Wisconsin Dept of Natural Resources	999888890	08/31/2018

Qualifiers and Definitions

Item	Description
B	Analyte was present in the method blank.
S	The recovery is outside of the laboratory control limits.
%Rec	Percent Recovery



Environmental Monitoring and Technologies, Inc.

CHAIN OF CUSTODY

Environmental Monitoring and Technologies, Inc
8100 Austin Ave
Morton Grove
IL, 60053-3203

Phone: 800-246-0663
Fax: 847-967-67-35



18G0203

Page 1 of 1

Lab Work Order Number: **18G0203**

Client Name City, Water, Light & Power	Project Name List G20
Client Contact Eric Staley	Project Number [none]
Address 201 East Lake Shore Drive	Project Description
City Springfield	PO Number
State/Zip IL, 62707-	Shipped By
Phone / Fax (217) 757-8610 / (217) 757-8615	Tracking Number
Sampler P. BRAHMER	Sampler Signature <i>P. Brahma</i>

Requested Turn Around Rush requests subject to additional charge. Rush requests subject to lab approval.
Standard (days)
Expedited (days)
Due Date

Sample Name or Field ID	Sampled Date	Sampled Time	Sample Type Code	Matrix Code	Container Count	NA:1	P:1	P:3	TEMP	pH	Sample Comments
RW-3	07/09/18	0720	GRAB	GW	6	1	1	3	57.0	6.82	UAF
AP-2	07/09/18	0830	GRAB	GW	6	1	1	3	59.1	6.52	ORAF
AP-1	07/09/18	0800	GRAB	GW	6	1	1	3	58.6	6.71	ORAF
AP-3	07/09/18	0855	GRAB	GW	6	1	1	3	60.1	6.61	ORAF
AP-4	07/09/18	0930	GRAB	GW	6	1	1	3	61.0	7.00	ORAF
AP-5	07/09/18	1005	GRAB	GW	6	1	1	3	55.5	7.05	ORAF

Relinquished By <i>P. Brahma</i>	Date/Time 7/11/18 1115	Received By <i>[Signature]</i>	Date/Time 7/11/18 1115	Comments
Relinquished By <i>[Signature]</i>	Date/Time 7/11/18 1445	Received By <i>[Signature]</i>	Date/Time 7/11/18 1445	Comments

Matrix Codes: GW=Groundwater
Cooler Numbers and Temperatures

Preserv. Codes:
1=No Preservative, Store at <8 C, 3=Nitric acid (HNO3) pH <2
NA=No container- field tested, P=16 oz HDPE, P=16 oz HDPE, 1:1 HNO3 to pH <2, P=32 oz HDPE, 1:1 HNO3 to pH <2

Cont. Codes

CALIBRATION
pH 7.0 = 7.0 @ 0645

Sample Receipt Checklist**Work Order: 18G0203**

Printed: 7/9/2018 4:39:43PM

Client: City, Water, Light & Power
Project: List G20

Date Due: 07/16/18 17:00 (5 day TAT)

Received By: Steven Legacki
Logged In By: Steven LegackiDate Received: 07/09/18 14:45
Date Logged In: 07/09/18 15:30

Samples Received at:	3.5°C
How were samples received?	Client
Custody Seals Present	No
Custody Seals Intact	NA
Sample Cont/Cooler Intact	Yes
COC Present/Complete	Yes
COC/Labels Agree	Yes
Proper Cont/Preservation checked	Yes
Sufficient Sample Volume	Yes
Samples Within Holdtime	Yes
Cooler Temp Within Limits	Yes
VOA Water Vials Received	No
VOA Water Vials/Zero Headspace	NA
PM or Client Contacted	No

COMMENTS

922

7/9/18

LABORATORY REPORT

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

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STATE CERTIFICATION LIST

State	Certification	State	Certification
Alabama	40700	Missouri	880
Alaska	IN00035	Montana	CERT0026
Arizona	AZ0432	Nebraska	NE-OS-05-04
Arkansas	IN00035	Nevada	IN00035
California	2920	New Hampshire*	2124
Colorado	IN035	New Jersey*	IN598
Colorado Radiochemistry	IN035	New Mexico	IN00035
Connecticut	PH-0132	New York*	11398
Delaware	IN035	North Carolina	18700
Florida*	E87775	North Dakota	R-035
Georgia	929	Ohio	87775
Hawaii	IN035	Oklahoma	D9508
Idaho	IN00035	Oregon (Primary AB)*	4074-001
Illinois*	200001	Pennsylvania*	68-00466
Illinois Microbiology	17767	Puerto Rico	IN00035
Illinois Radiochemistry	IN00035	Rhode Island	LAO00343
Indiana Chemistry	C-71-01	South Carolina	95005
Indiana Microbiology	M-76-07	South Dakota	IN00035
Iowa	098	Tennessee	TN02973
Kansas*	E-10233	Texas*	T104704187-15-8
Kentucky	90056	Texas/TCEQ	TX207
Louisiana*	LA180008	Utah*	IN00035
Maine	IN00035	Vermont	VT-8775
Maryland	209	Virginia*	460275
Massachusetts	M-IN035	Washington	C837
Michigan	9926	West Virginia	9927 C
Minnesota*	018-999-338	Wisconsin	999766900
Mississippi	IN035	Wyoming	IN035
EPA	IN00035		

*NELAP/TNI Recognized Accreditation Bodies



110 South Hill Street
 South Bend, IN 46617
 Tel: (574) 233-4777
 Fax: (574) 233-8207
 1 800 332 4345

Laboratory Report

Client: Environmental Monitoring Technologies
 Attn: Matt Gregory
 8100 North Austin Avenue
 Morton Grove, IL 60053

Report: 422008
 Priority: Standard Written
 Status: Final
 PWS ID: Not Supplied

Sample Information

EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
3985313	18G0203-01	7500-Ra B	07/09/18 07:20	Client	07/11/18 08:00
3985313	18G0203-01	7500-Ra D	07/09/18 07:20	Client	07/11/18 08:00
3985314	18G0203-02	7500-Ra B	07/09/18 08:30	Client	07/11/18 08:00
3985314	18G0203-02	7500-Ra D	07/09/18 08:30	Client	07/11/18 08:00
3985315	18G0203-03	7500-Ra B	07/09/18 08:00	Client	07/11/18 08:00
3985315	18G0203-03	7500-Ra D	07/09/18 08:00	Client	07/11/18 08:00
3985316	18G0203-04	7500-Ra B	07/09/18 08:55	Client	07/11/18 08:00
3985316	18G0203-04	7500-Ra D	07/09/18 08:55	Client	07/11/18 08:00
3985317	18G0203-05	7500-Ra B	07/09/18 09:30	Client	07/11/18 08:00
3985317	18G0203-05	7500-Ra D	07/09/18 09:30	Client	07/11/18 08:00
3985318	18G0203-06	7500-Ra B	07/09/18 10:05	Client	07/11/18 08:00
3985318	18G0203-06	7500-Ra D	07/09/18 10:05	Client	07/11/18 08:00

Report Summary

Note: Sample containers were provided by the client.

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call James Van Fleit at (574) 233-4777.

Note: This report may not be reproduced, except in full, without written approval from EEA.

James Van Fleit ASM

Authorized Signature

Title

08/02/2018

Date

Client Name: Environmental Monitoring Technologies

Report #: 422008

Client Name: Environmental Monitoring Technologies

Report #: 422008

Sampling Point: 18G0203-01

PWS ID: Not Supplied

Radionuclides										
Analyte ID #	Analyte	Method	Reg Limit	MDA 95**	MRL	Result	Units	Preparation Date	Analyzed	EEA ID #
13982-63-3	Radium-226	7500-Ra B	---	0.25	1.0	0.96 ± 0.51	pCi/L	07/19/18 11:05	07/30/18 11:10	3985313
15262-20-1	Radium-228	7500-Ra D	---	0.49	1.0	2.2 ± 0.6	pCi/L	07/19/18 11:05	07/31/18 16:28	3985313
---	Combined Radium	calc.	5 *	0.49	1.0	3.16 ± 0.77	pCi/L	07/19/18 11:05	07/31/18 16:28	3985313

** Minimum Detectable Activity (MDA95) shall be that concentration which can be counted with a precision of plus or minus 100% at the 95 % confidence level.

Sampling Point: 18G0203-02

PWS ID: Not Supplied

Radionuclides										
Analyte ID #	Analyte	Method	Reg Limit	MDA 95**	MRL	Result	Units	Preparation Date	Analyzed	EEA ID #
13982-63-3	Radium-226	7500-Ra B	---	0.14	1.0	0.70 ± 0.26	pCi/L	07/19/18 11:05	07/24/18 10:55	3985314
15262-20-1	Radium-228	7500-Ra D	---	0.55	1.0	0.65 ± 0.56	pCi/L	07/19/18 11:05	07/31/18 16:28	3985314
---	Combined Radium	calc.	5 *	0.55	1.0	1.35 ± 0.62	pCi/L	07/19/18 11:05	07/31/18 16:28	3985314

** Minimum Detectable Activity (MDA95) shall be that concentration which can be counted with a precision of plus or minus 100% at the 95 % confidence level.

Sampling Point: 18G0203-03

PWS ID: Not Supplied

Radionuclides										
Analyte ID #	Analyte	Method	Reg Limit	MDA 95**	MRL	Result	Units	Preparation Date	Analyzed	EEA ID #
13982-63-3	Radium-226	7500-Ra B	---	0.15	1.0	0.96 ± 0.50	pCi/L	07/19/18 11:05	07/30/18 11:10	3985315
15262-20-1	Radium-228	7500-Ra D	---	0.56	1.0	1.0 ± 0.6	pCi/L	07/19/18 11:05	07/31/18 16:28	3985315
---	Combined Radium	calc.	5 *	0.56	1.0	1.96 ± 0.77	pCi/L	07/19/18 11:05	07/31/18 16:28	3985315

** Minimum Detectable Activity (MDA95) shall be that concentration which can be counted with a precision of plus or minus 100% at the 95 % confidence level.

Sampling Point: 18G0203-04

PWS ID: Not Supplied

Radionuclides										
Analyte ID #	Analyte	Method	Reg Limit	MDA 95**	MRL	Result	Units	Preparation Date	Analyzed	EEA ID #
13982-63-3	Radium-226	7500-Ra B	---	0.25	1.0	0.34 ± 0.28	pCi/L	07/19/18 11:05	07/24/18 10:55	3985316
15262-20-1	Radium-228	7500-Ra D	---	0.81	1.0	0.37 ± 0.78	pCi/L	07/19/18 11:05	07/31/18 16:28	3985316
---	Combined Radium	calc.	5 *	0.81	1.0	< 0.81	pCi/L	07/19/18 11:05	07/31/18 16:28	3985316

** Minimum Detectable Activity (MDA95) shall be that concentration which can be counted with a precision of plus or minus 100% at the 95 % confidence level.

Client Name: Environmental Monitoring Technologies

Report #: 422008

Sampling Point: 18G0203-05

PWS ID: Not Supplied

Radionuclides										
Analyte ID #	Analyte	Method	Reg Limit	MDA 95**	MRL	Result	Units	Preparation Date	Analyzed	EEA ID #
13982-63-3	Radium-226	7500-Ra B	---	0.14	1.0	0.96 ± 0.31	pCi/L	07/19/18 11:05	07/24/18 10:55	3985317
15262-20-1	Radium-228	7500-Ra D	---	0.45	1.0	1.4 ± 0.5	pCi/L	07/19/18 11:05	07/31/18 16:28	3985317
---	Combined Radium	calc.	5 *	0.45	1.0	2.36 ± 0.59	pCi/L	07/19/18 11:05	07/31/18 16:28	3985317

** Minimum Detectable Activity (MDA95) shall be that concentration which can be counted with a precision of plus or minus 100% at the 95 % confidence level.

Sampling Point: 18G0203-06

PWS ID: Not Supplied

Radionuclides										
Analyte ID #	Analyte	Method	Reg Limit	MDA 95**	MRL	Result	Units	Preparation Date	Analyzed	EEA ID #
13982-63-3	Radium-226	7500-Ra B	---	0.23	1.0	0.78 ± 0.34	pCi/L	07/19/18 11:05	07/24/18 10:55	3985318
15262-20-1	Radium-228	7500-Ra D	---	0.56	1.0	0.85 ± 0.58	pCi/L	07/19/18 11:05	07/31/18 16:28	3985318
---	Combined Radium	calc.	5 *	0.56	1.0	1.63 ± 0.67	pCi/L	07/19/18 11:05	07/31/18 16:28	3985318

** Minimum Detectable Activity (MDA95) shall be that concentration which can be counted with a precision of plus or minus 100% at the 95 % confidence level.

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

Lab Definitions

Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC) - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

Internal Standards (IS) - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

Laboratory Duplicate (LD) - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS) - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB) - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB) - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD) - is a sample aliquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM) - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV) - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS) - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

Surrogate Standard (SS) / Surrogate Analyte (SUR) - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.

340010
422008

SUBCONTRACT ORDER

Environmental Monitoring and Technologies, Inc

18G0203

SENDING LABORATORY:


Environmental Monitoring and Technologies, Inc
8100 Austin Ave
Morton Grove, IL 60053
Phone: 847-324-3327
Fax: 847.967.6735
Project Manager: Matt Gregory (mgregory@emt.com)

RECEIVING LABORATORY:

Eurofins-Eaton (Underwriters), Subcontract
110 South Hill St (Now Eurofins Eaton Analytical)
South Bend, IN 46617-
Phone :(574) 233-4777
Fax: (847) 407-1916
Client Provided Sample Container

Analysis	Due - <i>Standard</i>	Expires	Laboratory ID	Comments
RW-3 Sample ID: 18G0203-01 Water Sampled:07/09/18 07:20	(2)	07/16/18 12:00	3985313	PO #: 61147 for Radium 226 and 228
Radiation Testing, Subcontracted <i>Containers Supplied:</i> 32 oz HDPE, 1:1 HNO3 to 32 oz HDPE, 1:1 HNO3 to		08/08/18 07:20		
AP-2 Sample ID: 18G0203-02 Water Sampled:07/09/18 08:30	(2)	07/16/18 12:00	314	PO #: 61147 for Radium 226 and 228
Radiation Testing, Subcontracted <i>Containers Supplied:</i> 32 oz HDPE, 1:1 HNO3 to 32 oz HDPE, 1:1 HNO3 to		08/08/18 08:30		
AP-1 Sample ID: 18G0203-03 Water Sampled:07/09/18 08:00	(2)	07/16/18 12:00	315	PO #: 61147 for Radium 226 and 228
Radiation Testing, Subcontracted <i>Containers Supplied:</i> 32 oz HDPE, 1:1 HNO3 to 32 oz HDPE, 1:1 HNO3 to		08/08/18 08:00		
AP-3 Sample ID: 18G0203-04 Water Sampled:07/09/18 08:55	(2)	07/16/18 12:00	316	PO #: 61147 for Radium 226 and 228
Radiation Testing, Subcontracted <i>Containers Supplied:</i> 32 oz HDPE, 1:1 HNO3 to 32 oz HDPE, 1:1 HNO3 to		08/08/18 08:55		
AP-4 Sample ID: 18G0203-05 Water Sampled:07/09/18 09:30	(2)	07/16/18 12:00	317	PO #: 61147 for Radium 226 and 228
Radiation Testing, Subcontracted <i>Containers Supplied:</i> 32 oz HDPE, 1:1 HNO3 to 32 oz HDPE, 1:1 HNO3 to		08/08/18 09:30		
AP-5 Sample ID: 18G0203-06 Water Sampled:07/09/18 10:05	(2)	07/16/18 12:00	318	PO #: 61147 for Radium 226 and 228
Radiation Testing, Subcontracted <i>Containers Supplied:</i> 32 oz HDPE, 1:1 HNO3 to 32 oz HDPE, 1:1 HNO3 to		08/08/18 10:05		

PO # 61147 for 6 samples for Radium 226 and 228
all pH < 2 dmw 7/11/18

	Date	Received By	Date
	7/10/18	<i>amants</i>	7/11/18
Released By	Date	Received By	Date
			0800

March 31, 2020

Eric Staley
City Water, Light & Power
201 E. Lake Shore Drive
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615



RE: Ash Pond Monitoring Wells

WorkOrder: 20020972

Dear Eric Staley:

TEKLAB, INC received 8 samples on 3/6/2020 7:00:00 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,



Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com



Report Contents

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

Client: City Water, Light & Power

Work Order: 20020972

Client Project: Ash Pond Monitoring Wells

Report Date: 31-Mar-2020

This reporting package includes the following:

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Client: City Water, Light & Power

Work Order: 20020972

Client Project: Ash Pond Monitoring Wells

Report Date: 31-Mar-2020

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

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)

Qualifiers

- Unknown hydrocarbon

C - RL shown is a Client Requested Quantitation Limit

H - Holding times exceeded

J - Analyte detected below quantitation limits

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside recovery limits

X - Value exceeds Maximum Contaminant Level

B - Analyte detected in associated Method Blank

E - Value above quantitation range

I - Associated internal standard was outside method criteria

M - Manual Integration used to determine area response

R - RPD outside accepted recovery limits

T - TIC(Tentatively identified compound)



Case Narrative

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

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 20020972
Report Date: 31-Mar-2020

Cooler Receipt Temp: 0.2 °C

An employee of Teklab, Inc. collected the sample(s).

No samples were collected at AP-8, AP-9, and AP-10. JE/EAH 3/6/20

Radium-226 and Radium-228 analysis was performed by Pace Analytical Services, LLC. See attached report for results.

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
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Fax (618) 344-1005
Email EHurley@teklabinc.com

Springfield

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

Chicago

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

Kansas City

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



Accreditations

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

Client: City Water, Light & Power

Work Order: 20020972

Client Project: Ash Pond Monitoring Wells

Report Date: 31-Mar-2020

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2021	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2020	Collinsville
Louisiana	LDEQ	166493	NELAP	6/30/2020	Collinsville
Louisiana	LDEQ	166578	NELAP	6/30/2020	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2020	Collinsville
Arkansas	ADEQ	88-0966		3/14/2021	Collinsville
Illinois	IDPH	17584		5/31/2021	Collinsville
Kentucky	UST	0073		3/3/2020	Collinsville
Missouri	MDNR	00930		5/31/2021	Collinsville
Missouri	MDNR	930		1/31/2022	Collinsville



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 20020972-001
 Matrix: GROUNDWATER

Work Order: 20020972
 Report Date: 31-Mar-2020
 Client Sample ID: RW-3
 Collection Date: 02/28/2020 10:05

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		495.52	ft	1	02/28/2020 10:05	R274181
Depth to water	*	-5.00		4.64	ft	1	02/28/2020 10:05	R274181
Depth to water from measuring point	*	0		7.34	ft	1	02/28/2020 10:05	R274181
Elevation of groundwater surface	*	0		532.16	ft	1	02/28/2020 10:05	R274181
Measuring Point Elevation	*	0		539.50	ft	1	02/28/2020 10:05	R274181
Measuring Point Height Above Land Surface	*	0		2.70	ft	1	02/28/2020 10:05	R274181
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		55.9	°F	1	02/28/2020 10:05	R274181
SW-846 9040B								
pH, Field	*	1.00		7.23		1	02/28/2020 10:05	R274181
SW-846 9050A								
Spec. Conductance, Field	*	1.00		716	µmhos/cm	1	02/28/2020 10:05	R274181
STANDARD METHODS 2540 C (TOTAL) 1997								
Total Dissolved Solids	NELAP	400		880	mg/L	20	03/06/2020 9:54	R273898
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		27	mg/L	1	03/09/2020 17:33	R273909
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.32	mg/L	1	03/10/2020 13:17	R273957
SW-846 9251 (TOTAL)								
Chloride	NELAP	5		36	mg/L	1	03/06/2020 17:54	R273863
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		0.497	mg/L	1	03/06/2020 23:24	162903
Barium	NELAP	0.0025		1.61	mg/L	1	03/06/2020 23:24	162903
Beryllium	NELAP	0.0005		0.0278	mg/L	1	03/06/2020 23:24	162903
Boron	NELAP	0.0200		0.293	mg/L	1	03/12/2020 11:24	162903
Cadmium	NELAP	0.0020		0.0059	mg/L	1	03/06/2020 23:24	162903
Calcium	NELAP	0.100		247	mg/L	1	03/06/2020 23:24	162903
Chromium	NELAP	0.0050		0.807	mg/L	1	03/06/2020 23:24	162903
Cobalt	NELAP	0.0050		0.453	mg/L	1	03/06/2020 23:24	162903
Lead	NELAP	0.0150		0.442	mg/L	1	03/06/2020 23:24	162903
Lithium	NELAP	0.0050		0.771	mg/L	1	03/06/2020 23:24	162903
Molybdenum	NELAP	0.0100		0.0220	mg/L	1	03/12/2020 11:24	162903
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0040		< 0.0040	mg/L	20	03/10/2020 14:50	162904
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	03/09/2020 16:10	162904
Thallium	NELAP	0.0080		< 0.0080	mg/L	20	03/10/2020 14:50	162904
<i>Dilution required to meet internal standard recovery criteria.</i>								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		0.00050	mg/L	1	03/09/2020 9:30	162905
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	03/26/2020 0:00	R274761
Radium-228	*	0		See attached	pci/L	1	03/26/2020 0:00	R274761



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 20020972-002
 Matrix: GROUNDWATER

Work Order: 20020972
 Report Date: 31-Mar-2020

Client Sample ID: AP-1

Collection Date: 03/05/2020 12:03

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		504.28	ft	1	03/05/2020 12:03	R274181
Depth to water	*	-5.00		4.44	ft	1	03/05/2020 12:03	R274181
Depth to water from measuring point	*	0		6.71	ft	1	03/05/2020 12:03	R274181
Elevation of groundwater surface	*	0		528.66	ft	1	03/05/2020 12:03	R274181
Measuring Point Elevation	*	0		535.37	ft	1	03/05/2020 12:03	R274181
Measuring Point Height Above Land Surface	*	0		2.27	ft	1	03/05/2020 12:03	R274181
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		57.6	°F	1	03/05/2020 12:03	R274181
SW-846 9040B								
pH, Field	*	1.00		6.74		1	03/05/2020 12:03	R274181
SW-846 9050A								
Spec. Conductance, Field	*	1.00		1500	µmhos/cm	1	03/05/2020 12:03	R274181
STANDARD METHODS 2540 C (TOTAL) 1997								
Total Dissolved Solids	NELAP	20		1220	mg/L	1	03/06/2020 12:53	R273898
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		616	mg/L	20	03/09/2020 17:38	R273909
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.18	mg/L	1	03/10/2020 13:18	R273957
SW-846 9251 (TOTAL)								
Chloride	NELAP	5		49	mg/L	1	03/06/2020 18:04	R273863
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	03/06/2020 23:28	162903
Barium	NELAP	0.0025		0.375	mg/L	1	03/06/2020 23:28	162903
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	03/06/2020 23:28	162903
Boron	NELAP	0.0200		18.0	mg/L	1	03/10/2020 14:23	162903
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	03/06/2020 23:28	162903
Calcium	NELAP	0.100		215	mg/L	1	03/06/2020 23:28	162903
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	03/06/2020 23:28	162903
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	03/06/2020 23:28	162903
Lead	NELAP	0.0150		< 0.0150	mg/L	1	03/06/2020 23:28	162903
Lithium	NELAP	0.0050		0.0104	mg/L	1	03/06/2020 23:28	162903
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	03/10/2020 14:23	162903
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	03/09/2020 16:18	162904
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	03/09/2020 16:18	162904
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	03/09/2020 16:18	162904
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	03/09/2020 9:33	162905
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	03/26/2020 0:00	R274761
Radium-228	*	0		See attached	pci/L	1	03/26/2020 0:00	R274761



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 20020972-003
 Matrix: GROUNDWATER

Work Order: 20020972
 Report Date: 31-Mar-2020

Client Sample ID: AP-2

Collection Date: 03/05/2020 12:24

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		514.80	ft	1	03/05/2020 12:24	R274181
Depth to water	*	-5.00		3.46	ft	1	03/05/2020 12:24	R274181
Depth to water from measuring point	*	0		5.96	ft	1	03/05/2020 12:24	R274181
Elevation of groundwater surface	*	0		530.14	ft	1	03/05/2020 12:24	R274181
Measuring Point Elevation	*	0		536.10	ft	1	03/05/2020 12:24	R274181
Measuring Point Height Above Land Surface	*	0		2.50	ft	1	03/05/2020 12:24	R274181
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		54.3	°F	1	03/05/2020 12:24	R274181
SW-846 9040B								
pH, Field	*	1.00		6.54		1	03/05/2020 12:24	R274181
SW-846 9050A								
Spec. Conductance, Field	*	1.00		1640	µmhos/cm	1	03/05/2020 12:24	R274181
STANDARD METHODS 2540 C (TOTAL) 1997								
Total Dissolved Solids	NELAP	20		1430	mg/L	1	03/06/2020 12:53	R273898
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		686	mg/L	20	03/09/2020 17:44	R273909
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.21	mg/L	1	03/10/2020 13:21	R273957
SW-846 9251 (TOTAL)								
Chloride	NELAP	5		35	mg/L	1	03/06/2020 18:28	R273863
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	03/06/2020 23:50	162903
Barium	NELAP	0.0025		0.0922	mg/L	1	03/06/2020 23:50	162903
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	03/06/2020 23:50	162903
Boron	NELAP	0.0200		5.23	mg/L	1	03/10/2020 14:27	162903
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	03/06/2020 23:50	162903
Calcium	NELAP	0.100		291	mg/L	1	03/06/2020 23:50	162903
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	03/06/2020 23:50	162903
Cobalt	NELAP	0.0050		0.0134	mg/L	1	03/06/2020 23:50	162903
Lead	NELAP	0.0150		< 0.0150	mg/L	1	03/06/2020 23:50	162903
Lithium	NELAP	0.0050		0.0065	mg/L	1	03/06/2020 23:50	162903
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	03/10/2020 14:27	162903
<i>Sample result for Ca exceeds 10 times the CCB. Data is reportable per the TNI Standard.</i>								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	03/09/2020 16:26	162904
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	03/09/2020 16:26	162904
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	03/09/2020 16:26	162904
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	03/09/2020 9:36	162905
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	03/26/2020 0:00	R274761
Radium-228	*	0		See attached	pci/L	1	03/26/2020 0:00	R274761



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 20020972-004
 Matrix: GROUNDWATER

Work Order: 20020972
 Report Date: 31-Mar-2020

Client Sample ID: AP-3

Collection Date: 03/05/2020 12:43

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		516.29	ft	1	03/05/2020 12:43	R274181
Depth to water	*	-5.00		4.37	ft	1	03/05/2020 12:43	R274181
Depth to water from measuring point	*	0		6.07	ft	1	03/05/2020 12:43	R274181
Elevation of groundwater surface	*	0		529.33	ft	1	03/05/2020 12:43	R274181
Measuring Point Elevation	*	0		535.40	ft	1	03/05/2020 12:43	R274181
Measuring Point Height Above Land Surface	*	0		1.70	ft	1	03/05/2020 12:43	R274181
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		56.8	°F	1	03/05/2020 12:43	R274181
SW-846 9040B								
pH, Field	*	1.00		6.67		1	03/05/2020 12:43	R274181
SW-846 9050A								
Spec. Conductance, Field	*	1.00		1060	µmhos/cm	1	03/05/2020 12:43	R274181
STANDARD METHODS 2540 C (TOTAL) 1997								
Total Dissolved Solids	NELAP	20		830	mg/L	1	03/06/2020 12:54	R273898
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		345	mg/L	10	03/09/2020 17:49	R273909
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.19	mg/L	1	03/10/2020 13:26	R273957
SW-846 9251 (TOTAL)								
Chloride	NELAP	5		36	mg/L	1	03/06/2020 18:39	R273863
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	03/06/2020 23:31	162903
Barium	NELAP	0.0025		0.0990	mg/L	1	03/06/2020 23:31	162903
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	03/06/2020 23:31	162903
Boron	NELAP	0.0200		18.5	mg/L	1	03/10/2020 14:31	162903
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	03/06/2020 23:31	162903
Calcium	NELAP	0.100		158	mg/L	1	03/06/2020 23:31	162903
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	03/06/2020 23:31	162903
Cobalt	NELAP	0.0050		0.0058	mg/L	1	03/06/2020 23:31	162903
Lead	NELAP	0.0150		< 0.0150	mg/L	1	03/06/2020 23:31	162903
Lithium	NELAP	0.0050		0.0060	mg/L	1	03/06/2020 23:31	162903
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	03/10/2020 14:31	162903
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	03/09/2020 16:35	162904
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	03/09/2020 16:35	162904
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	03/09/2020 16:35	162904
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	03/09/2020 9:38	162905
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	03/26/2020 0:00	R274761
Radium-228	*	0		See attached	pci/L	1	03/26/2020 0:00	R274761



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 20020972-005
 Matrix: GROUNDWATER

Work Order: 20020972
 Report Date: 31-Mar-2020

Client Sample ID: AP-4

Collection Date: 03/05/2020 13:33

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		496.48	ft	1	03/05/2020 13:33	R274181
Depth to water	*	-5.00		6.35	ft	1	03/05/2020 13:33	R274181
Depth to water from measuring point	*	0		11.65	ft	1	03/05/2020 13:33	R274181
Elevation of groundwater surface	*	0		547.55	ft	1	03/05/2020 13:33	R274181
Measuring Point Elevation	*	0		559.20	ft	1	03/05/2020 13:33	R274181
Measuring Point Height Above Land Surface	*	0		5.30	ft	1	03/05/2020 13:33	R274181
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		60.1	°F	1	03/05/2020 13:33	R274181
SW-846 9040B								
pH, Field	*	1.00		7.01		1	03/05/2020 13:33	R274181
SW-846 9050A								
Spec. Conductance, Field	*	1.00		865	µmhos/cm	1	03/05/2020 13:33	R274181
STANDARD METHODS 2540 C (TOTAL) 1997								
Total Dissolved Solids	NELAP	20		498	mg/L	1	03/06/2020 12:55	R273898
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		< 10	mg/L	1	03/09/2020 17:54	R273909
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.12	mg/L	1	03/10/2020 13:27	R273957
SW-846 9251 (TOTAL)								
Chloride	NELAP	5		13	mg/L	1	03/06/2020 18:49	R273863
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		0.0264	mg/L	1	03/06/2020 23:35	162903
Barium	NELAP	0.0025		0.410	mg/L	1	03/06/2020 23:35	162903
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	03/06/2020 23:35	162903
Boron	NELAP	0.0200		0.0986	mg/L	1	03/12/2020 11:28	162903
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	03/06/2020 23:35	162903
Calcium	NELAP	0.100		127	mg/L	1	03/06/2020 23:35	162903
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	03/06/2020 23:35	162903
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	03/06/2020 23:35	162903
Lead	NELAP	0.0150		< 0.0150	mg/L	1	03/06/2020 23:35	162903
Lithium	NELAP	0.0050		0.0071	mg/L	1	03/06/2020 23:35	162903
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	03/10/2020 14:34	162903
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	03/09/2020 18:06	162904
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	03/09/2020 18:06	162904
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	03/09/2020 18:06	162904
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	03/09/2020 9:46	162905
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	03/26/2020 0:00	R274761
Radium-228	*	0		See attached	pci/L	1	03/26/2020 0:00	R274761



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 20020972-006
 Matrix: GROUNDWATER

Work Order: 20020972
 Report Date: 31-Mar-2020

Client Sample ID: AP-5

Collection Date: 03/05/2020 13:56

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		552.75	ft	1	03/05/2020 13:56	R274181
Depth to water	*	-5.00		1.53	ft	1	03/05/2020 13:56	R274181
Depth to water from measuring point	*	0		3.83	ft	1	03/05/2020 13:56	R274181
Elevation of groundwater surface	*	0		580.07	ft	1	03/05/2020 13:56	R274181
Measuring Point Elevation	*	0		583.90	ft	1	03/05/2020 13:56	R274181
Measuring Point Height Above Land Surface	*	0		2.30	ft	1	03/05/2020 13:56	R274181
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		53.8	°F	1	03/05/2020 13:56	R274181
SW-846 9040B								
pH, Field	*	1.00		7.46		1	03/05/2020 13:56	R274181
SW-846 9050A								
Spec. Conductance, Field	*	1.00		559	µmhos/cm	1	03/05/2020 13:56	R274181
STANDARD METHODS 2540 C (TOTAL) 1997								
Total Dissolved Solids	NELAP	20		314	mg/L	1	03/06/2020 12:55	R273898
SW-846 9036 (TOTAL)								
Sulfate	NELAP	20		37	mg/L	2	03/09/2020 18:24	R273909
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.37	mg/L	1	03/10/2020 13:29	R273957
SW-846 9251 (TOTAL)								
Chloride	NELAP	5		< 5	mg/L	1	03/06/2020 19:00	R273863
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	03/07/2020 0:01	162903
Barium	NELAP	0.0025		0.0420	mg/L	1	03/07/2020 0:01	162903
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	03/07/2020 0:01	162903
Boron	NELAP	0.0200		0.0330	mg/L	1	03/12/2020 11:31	162903
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	03/07/2020 0:01	162903
Calcium	NELAP	0.100		78.5	mg/L	1	03/07/2020 0:01	162903
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	03/07/2020 0:01	162903
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	03/07/2020 0:01	162903
Lead	NELAP	0.0150		< 0.0150	mg/L	1	03/07/2020 0:01	162903
Lithium	NELAP	0.0050		< 0.0050	mg/L	1	03/07/2020 0:01	162903
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	03/10/2020 14:38	162903
<i>Sample result for Ca exceeds 10 times the CCB. Data is reportable per the TNI Standard.</i>								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	03/09/2020 18:14	162904
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	03/09/2020 18:14	162904
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	03/09/2020 18:14	162904
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	03/09/2020 9:49	162905
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	03/26/2020 0:00	R274761
Radium-228	*	0		See attached	pci/L	1	03/26/2020 0:00	R274761



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 20020972-007
 Matrix: GROUNDWATER

Work Order: 20020972
 Report Date: 31-Mar-2020

Client Sample ID: AP-6

Collection Date: 03/05/2020 11:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		6.74	ft	1	03/05/2020 11:30	R274181
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		57.6	°F	1	03/05/2020 11:30	R274181
SW-846 9040B								
pH, Field	*	1.00		7.11		1	03/05/2020 11:30	R274181
SW-846 9050A								
Spec. Conductance, Field	*	1.00		720	µmhos/cm	1	03/05/2020 11:30	R274181
STANDARD METHODS 2540 C (TOTAL) 1997								
Total Dissolved Solids	NELAP	100		630	mg/L	5	03/06/2020 12:56	R273898
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		< 10	mg/L	1	03/09/2020 18:34	R273909
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.51	mg/L	1	03/10/2020 13:30	R273957
SW-846 9251 (TOTAL)								
Chloride	NELAP	5		40	mg/L	1	03/06/2020 19:35	R273863
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		0.0590	mg/L	1	03/07/2020 0:04	162903
Barium	NELAP	0.0025		0.512	mg/L	1	03/07/2020 0:04	162903
Beryllium	NELAP	0.0005		0.0056	mg/L	1	03/07/2020 0:04	162903
Boron	NELAP	0.0200		0.319	mg/L	1	03/12/2020 11:35	162903
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	03/07/2020 0:04	162903
Calcium	NELAP	0.100		85.7	mg/L	1	03/07/2020 0:04	162903
Chromium	NELAP	0.0050		0.147	mg/L	1	03/07/2020 0:04	162903
Cobalt	NELAP	0.0050		0.0890	mg/L	1	03/07/2020 0:04	162903
Lead	NELAP	0.0150		0.0769	mg/L	1	03/07/2020 0:04	162903
Lithium	NELAP	0.0050		0.153	mg/L	1	03/07/2020 0:04	162903
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	03/10/2020 14:42	162903
<i>Sample result for Ca exceeds 10 times the CCB. Data is reportable per the TNI Standard.</i>								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	03/09/2020 18:22	162904
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	03/11/2020 17:25	162904
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	03/09/2020 18:22	162904
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	03/09/2020 9:56	162905
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	03/26/2020 0:00	R274761
Radium-228	*	0		See attached	pci/L	1	03/26/2020 0:00	R274761



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 20020972-008
 Matrix: GROUNDWATER

Work Order: 20020972
 Report Date: 31-Mar-2020

Client Sample ID: AP-7
 Collection Date: 03/05/2020 14:50

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Depth to water from measuring point	*	0		8.61	ft	1	03/05/2020 14:50	R274181
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		53.4	°F	1	03/05/2020 14:50	R274181
SW-846 9040B								
pH, Field	*	1.00		7.24		1	03/05/2020 14:50	R274181
SW-846 9050A								
Spec. Conductance, Field	*	1.00		780	µmhos/cm	1	03/05/2020 14:50	R274181
STANDARD METHODS 2540 C (TOTAL) 1997								
Total Dissolved Solids	NELAP	20		432	mg/L	1	03/06/2020 12:56	R273898
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		< 10	mg/L	1	03/09/2020 18:39	R273909
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.55	mg/L	1	03/10/2020 13:31	R273957
SW-846 9251 (TOTAL)								
Chloride	NELAP	50		50	mg/L	10	03/06/2020 19:51	R273863
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	03/07/2020 0:08	162903
Barium	NELAP	0.0025		0.170	mg/L	1	03/07/2020 0:08	162903
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	03/07/2020 0:08	162903
Boron	NELAP	0.0200		0.385	mg/L	1	03/12/2020 11:39	162903
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	03/07/2020 0:08	162903
Calcium	NELAP	0.100		66.7	mg/L	1	03/07/2020 0:08	162903
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	03/07/2020 0:08	162903
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	03/07/2020 0:08	162903
Lead	NELAP	0.0150		< 0.0150	mg/L	1	03/07/2020 0:08	162903
Lithium	NELAP	0.0050		0.0115	mg/L	1	03/07/2020 0:08	162903
Molybdenum	NELAP	0.0100		0.0119	mg/L	1	03/10/2020 14:45	162903
<i>Sample result for Ca exceeds 10 times the CCB. Data is reportable per the TNI Standard.</i>								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	03/09/2020 18:30	162904
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	03/09/2020 18:30	162904
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	03/09/2020 18:30	162904
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	03/09/2020 9:59	162905
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	03/26/2020 0:00	R274761
Radium-228	*	0		See attached	pci/L	1	03/26/2020 0:00	R274761



Receiving Check List

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

Client: City Water, Light & Power

Work Order: 20020972

Client Project: Ash Pond Monitoring Wells

Report Date: 31-Mar-2020

Carrier: Tim Mathis

Received By: EEP

Completed by:

Reviewed by:

On:

06-Mar-2020

Emily Pohlman

On:

06-Mar-2020

Elizabeth A. Hurley

Pages to follow: Chain of custody

Extra pages included

- Shipping container/cooler in good condition? Yes No Not Present Temp °C **0.2**
- 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.

CHAIN OF CUSTODY

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

Client: <u>City Water, Light & Power</u> Address: <u>201 E. Lake Shore Drive</u> City/State/Zip: <u>Springfield IL 62712</u> Contact: <u>Eric Staley</u> Phone: <u>(217) 757-8610</u> Email: <u>eric.staley@cwlp.com</u> Fax: _____	Samples on: <input checked="" type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input type="checkbox"/> NO ICE <u>0.2 °C U103</u> Preserved in: <input type="checkbox"/> LAB <input checked="" type="checkbox"/> FIELD <u>FOR LAB USE ONLY</u> LAB NOTES: *No sample <u>for 3/6/20</u>
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Are these samples known to be involved in litigation? If yes, a surcharge will apply: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are these samples known to be hazardous? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Permit on file	Client Comments: *elevations, pH, conductivity, temperature **Sb Se TI (ICPMS) As Ba Be B Cd Ca Cr Co Pb Li Hg Mo
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PROJECT NAME/NUMBER <u>Ash Pond Monitoring Wells</u>	SAMPLE COLLECTOR'S NAME <u>Tim Jordan</u>	# and Type of Containers	INDICATE ANALYSIS REQUESTED
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RESULTS REQUESTED <input checked="" type="checkbox"/> Standard <input type="checkbox"/> 1-2 Day (100% Surcharge) <input type="checkbox"/> Other <input type="checkbox"/> 3 Day (50% Surcharge)	BILLING INSTRUCTIONS
--	----------------------

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228
<u>001</u>	<u>RW-3</u>	<u>2/28/20 1005</u>	<u>Groundwater</u>	2	2								✓	✓	✓	✓	✓
<u>002</u>	<u>AP-1</u>	<u>3/6/20 1203</u>	<u>Groundwater</u>	2	2								✓	✓	✓	✓	✓
<u>003</u>	<u>AP-2</u>	<u>3/6/20 1224</u>	<u>Groundwater</u>	2	2								✓	✓	✓	✓	✓
<u>004</u>	<u>AP-3</u>	<u>3/6/20 1243</u>	<u>Groundwater</u>	2	2								✓	✓	✓	✓	✓
<u>005</u>	<u>AP-4</u>	<u>3/5/20 1333</u>	<u>Groundwater</u>	2	2								✓	✓	✓	✓	✓
<u>006</u>	<u>AP-5</u>	<u>3/5/20 1356</u>	<u>Groundwater</u>	2	2								✓	✓	✓	✓	✓
<u>007</u>	<u>AP-6 (GR6)</u>	<u>3/6/20 1130</u>	<u>Groundwater</u>	2	2								✓	✓	✓	✓	✓
<u>008</u>	<u>AP-7 (6P-2)</u>	<u>3/5/20 1450</u>	<u>Groundwater</u>	2	2								✓	✓	✓	✓	✓
<u>009</u>	<u>AP-8 *</u>		<u>Groundwater</u>	2	2								✓	✓	✓	✓	✓
<u>010</u>	<u>AP-9 *</u>		<u>Groundwater</u>	2	2								✓	✓	✓	✓	✓
<u>011</u>	<u>AP-10 *</u>		<u>Groundwater</u>	2	2								✓	✓	✓	✓	✓

Relinquished By 	Date/Time <u>3-6-20 0700</u>	Received By 	Date/Time <u>3/6/20 0700</u>
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*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

TEKLAB, INC. FIELD INFORMATION FORM

SITE NAME: CWLP

SAMPLE COLLECTOR: Jordan Evans

QUARTER/YEAR: Q1 2020

SAMPLING POINT RW3

Well Dry _____

PURGE DATE	START PURGE TIME	ELAPSED HOURS	WATER VOL. IN CASING (gallons)	ACTUAL VOL. PURGED (gallons)
2/28/20	1005		100	8

	YES	NO
Micro Purge		X
Purge Equipment Dedicated		X
Sampling Equipment Dedicated		X

A	Bailer – Teflon	H	Peristaltic Pump
C	Bailer – Polypropylene/Polyethylene	I	Submersible Pump
F	Bailer – Stainless Steel	L	Bladder Pump
Purging Device		I	Sampling Device

A	Teflon	D	Polypropylene
B	Tygon	E	Polyethylene
C	Rope X (Specify)		
Purging Tubing		A	Sampling Tubing

A	Inline Disposable	B	Pressure
Field Filtering	YES ^{TE SR}	NO	Filtering Device Used ^{A TE SR}

Depth to Water (ft)	7.34	Well Depth (ft)	43.98
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GALLONS	pH (std)	CONDUCTIVITY (um/cm)	TEMP (C)
4.0	7.17	1066	13.0
5.0	7.22	658	13.2
6.0	7.23	716	13.3

APPEARANCE	Cloudy	ODOR	nom
COLOR	Brown	TURBIDITY	Heavy

Comments: _____

TEKLAB, INC. FIELD INFORMATION FORM

SITE NAME: CWLP

SAMPLE COLLECTOR: Jordan Evans

QUARTER/YEAR: Q1 2020

SAMPLING POINT APW-1 ^{TE 18}

Well Dry _____

PURGE DATE	START PURGE TIME	ELAPSED HOURS	WATER VOL. IN CASING (gallons)	ACTUAL VOL. PURGED (gallons)
3/6/20 ^{3 TP BE}	1203		4.0	5

	YES	NO
Micro Purge		X
Purge Equipment Dedicated		X
Sampling Equipment Dedicated		X

A	Bailer – Teflon	H	Peristaltic Pump
C	Bailer – Polypropylene/Polyethylene	I	Submersible Pump
F	Bailer – Stainless Steel	L	Bladder Pump
Purging Device		I	Sampling Device

A	Teflon	D	Polypropylene
B	Tygon	E	Polyethylene
C	Rope X (Specify)		
Purging Tubing		A	Sampling Tubing

A	Inline Disposable	B	Pressure
Field Filtering	YES	NO	Filtering Device Used

Depth to Water (ft)	6.71	Well Depth (ft)	31.09
----------------------------	------	------------------------	-------

GALLONS	pH (std)	CONDUCTIVITY (um/cm)	TEMP (C)
1.0	6.74	1518	12.6
2.0	6.72	1507	13.4
3.0	6.74	1504	14.2

APPEARANCE	SL Cloudy	ODOR	none
COLOR	LT Brown	TURBIDITY	Slight

Comments:

TEKLAB, INC. FIELD INFORMATION FORM

SITE NAME: CWLP

SAMPLE COLLECTOR: Jordan Evans

QUARTER/YEAR: Q1 2020

SAMPLING POINT AP-2

Well Dry _____

PURGE DATE	START PURGE TIME	ELAPSED HOURS	WATER VOL. IN CASING (gallons)	ACTUAL VOL. PURGED (gallons)
<u>3/16/20</u>	<u>12:24</u>		<u>2.5</u>	<u>6</u>

	YES	NO
Micro Purge		X
Purge Equipment Dedicated		X
Sampling Equipment Dedicated		X

A	Bailer -- Teflon	H	Peristaltic Pump
C	Bailer -- Polypropylene/Polyethylene	I	Submersible Pump
F	Bailer -- Stainless Steel	L	Bladder Pump
Purging Device		I	Sampling Device

A	Teflon	D	Polypropylene
B	Tygon	E	Polyethylene
C	Rope X (Specify)		
Purging Tubing		A	Sampling Tubing

A	Inline Disposable	B	Pressure
Field Filtering	YES	NO	Filtering Device Used

Depth to Water (ft)	<u>5.96</u>	Well Depth (ft)	<u>21.30</u>
----------------------------	-------------	------------------------	--------------

GALLONS	pH (std)	CONDUCTIVITY (um/cm)	TEMP (C)
<u>1.0</u>	<u>6.68</u>	<u>1565</u>	<u>13.2</u>
<u>2.0</u>	<u>6.54</u>	<u>1581</u>	<u>12.6</u>
<u>3.0</u>	<u>6.54</u>	<u>1604</u>	<u>12.5</u>
<u>4.0</u>	<u>6.54</u>	<u>1636</u>	<u>12.4</u>

APPEARANCE	<u>SL Cloudy</u>	ODOR	<u>None</u>
COLOR	<u>LT Brown</u>	TURBIDITY	<u>Slight</u>

Comments: _____

TEKLAB, INC. FIELD INFORMATION FORM

SITE NAME: CWLP

SAMPLE COLLECTOR: Jordan Evans

QUARTER/YEAR: Q1 2020

SAMPLING POINT AP-3

Well Dry _____

PURGE DATE	START PURGE TIME	ELAPSED HOURS	WATER VOL. IN CASING (gallons)	ACTUAL VOL. PURGED (gallons)
3/10/20 ^{STE 3E}	1243		2.5	5.0

	YES	NO
Micro Purge		X
Purge Equipment Dedicated		X
Sampling Equipment Dedicated		X

A	Bailer – Teflon	H	Peristaltic Pump
C	Bailer – Polypropylene/Polyethylene	I	Submersible Pump
F	Bailer – Stainless Steel	L	Bladder Pump
Purging Device		I	Sampling Device
			I

A	Teflon	D	Polypropylene
B	Tygon	E	Polyethylene
C	Rope X (Specify)		
Purging Tubing		A	Sampling Tubing
			A

A	Inline Disposable	B	Pressure
Field Filtering	YES	NO	Filtering Device Used
			—

Depth to Water (ft)	6.07	Well Depth (ft)	19.11
----------------------------	------	------------------------	-------

GALLONS	pH (std) <small>TE 3E</small>	CONDUCTIVITY (um/cm)	TEMP (C)
1.0	6.78	1068	14.2
2.0	6.69	1052	14.0
3.0	6.71	1056	14.0
4.0	6.67	1062	13.8

APPEARANCE	SL Cloudy	ODOR	none
COLOR	LT Brown	TURBIDITY	Slight

Comments: _____

TEKLAB, INC. FIELD INFORMATION FORM

SITE NAME: CWLP

SAMPLE COLLECTOR: Jordan Evans

QUARTER/YEAR: Q1 2020

SAMPLING POINT AP-4

Well Dry _____

PURGE DATE	START PURGE TIME	ELAPSED HOURS	WATER VOL. IN CASING (gallons)	ACTUAL VOL. PURGED (gallons)
3/5/20	1333		8.3	8.0

	YES	NO
Micro Purge		X
Purge Equipment Dedicated		X
Sampling Equipment Dedicated		X

A	Bailer – Teflon	H	Peristaltic Pump
C	Bailer – Polypropylene/Polyethylene	I	Submersible Pump
F	Bailer – Stainless Steel	L	Bladder Pump
Purging Device		I	Sampling Device

A	Teflon	D	Polypropylene
B	Tygon	E	Polyethylene
C	Rope X (Specify)		
Purging Tubing		A	Sampling Tubing

A	Inline Disposable	B	Pressure
Field Filtering	YES	NO	Filtering Device Used
			—

Depth to Water (ft)	11.65	Well Depth (ft)	62.72
----------------------------	-------	------------------------	-------

GALLONS	pH (std)	CONDUCTIVITY (um/cm)	TEMP (C)
3.0	7.05	870	15.5
4.0	7.01	867	15.2
5.0	7.01	865	15.6

APPEARANCE	Clear	ODOR	Slight
COLOR	None	TURBIDITY	None

Comments: _____

TEKLAB, INC. FIELD INFORMATION FORM

SITE NAME: CWLP

SAMPLE COLLECTOR: Jordan Evans

QUARTER/YEAR: Q1 2020

SAMPLING POINT AP-5

Well Dry _____

PURGE DATE	START PURGE TIME	ELAPSED HOURS	WATER VOL. IN CASING (gallons)	ACTUAL VOL. PURGED (gallons)
3/5/20	1356		4.4	5

	YES	NO
Micro Purge		X
Purge Equipment Dedicated		X
Sampling Equipment Dedicated		X

A	Bailer – Teflon	H	Peristaltic Pump
C	Bailer – Polypropylene/Polyethylene	I	Submersible Pump
F	Bailer – Stainless Steel	L	Bladder Pump
Purging Device		I	Sampling Device

A	Teflon	D	Polypropylene
B	Tygon	E	Polyethylene
C	Rope X (Specify)		
Purging Tubing		A	Sampling Tubing

A	Inline Disposable	B	Pressure
Field Filtering	YES	NO	Filtering Device Used

Depth to Water (ft)	3.83	Well Depth (ft)	31.15
----------------------------	------	------------------------	-------

GALLONS	pH (std)	CONDUCTIVITY (um/cm)	TEMP (C)
1.0	7.115	560	12.5
2.0	7.47	560	12.0
3.0	7.46	559	12.1

APPEARANCE	clear	ODOR	none
COLOR	non	TURBIDITY	none

Comments: _____

TEKLAB, INC. FIELD INFORMATION FORM

SITE NAME: CWLP

SAMPLE COLLECTOR: Jordan Evans

QUARTER/YEAR: Q1 2020

SAMPLING POINT AP6 (6-P6)

Well Dry _____

PURGE DATE	START PURGE TIME	ELAPSED HOURS	WATER VOL. IN CASING (gallons)	ACTUAL VOL. PURGED (gallons)
3-5-20	1130		5.5	6.0

	YES	NO
Micro Purge		X
Purge Equipment Dedicated		X
Sampling Equipment Dedicated		X

A	Bailer – Teflon	H	Peristaltic Pump
C	Bailer – Polypropylene/Polyethylene	I	Submersible Pump
F	Bailer – Stainless Steel	L	Bladder Pump
Purging Device		I	Sampling Device

A	Teflon	D	Polypropylene
B	Tygon	E	Polyethylene
C	Rope X (Specify)		
Purging Tubing		A	Sampling Tubing

A	Inline Disposable	B	Pressure
Field Filtering	YES	NO	Filtering Device Used

Depth to Water (ft)	6.74	Well Depth (ft)	40.45
----------------------------	------	------------------------	-------

GALLONS	pH (std)	CONDUCTIVITY (um/cm)	TEMP (C)
1.5	7.05	708.6	12.5
7.0	7.09	734.5	13.3
7.5	7.12	729.7	13.9
3.0	7.11	719.9	14.2

APPEARANCE	Cloudy	ODOR	Slight
COLOR	Brown	TURBIDITY	HEAVY

Comments: _____

TEKLAB, INC. FIELD INFORMATION FORM

SITE NAME: CWLP

SAMPLE COLLECTOR: Jordan Evans

QUARTER/YEAR: Q1 2020

SAMPLING POINT AP71 GP2

Well Dry _____

PURGE DATE	START PURGE TIME	ELAPSED HOURS	WATER VOL. IN CASING (gallons)	ACTUAL VOL. PURGED (gallons)
3/5/20	1450		5.5	5.0

	YES	NO
Micro Purge		X
Purge Equipment Dedicated		X
Sampling Equipment Dedicated		X

A	Bailer – Teflon	H	Peristaltic Pump
C	Bailer – Polypropylene/Polyethylene	I	Submersible Pump
F	Bailer – Stainless Steel	L	Bladder Pump
Purging Device		I	Sampling Device

A	Teflon	D	Polypropylene
B	Tygon	E	Polyethylene
C	Rope X (Specify)		
Purging Tubing		A	Sampling Tubing

A	Inline Disposable	B	Pressure
Field Filtering	YES	NO	Filtering Device Used

Depth to Water (ft)	8.61	Well Depth (ft)	42.49
----------------------------	------	------------------------	-------

GALLONS	pH (std)	CONDUCTIVITY (um/cm)	TEMP (C)
1.0	7.31	777.4	12.4
2.0	7.26	779.7	12.1
3.0	7.22	778.8	12.1
4.0	7.24	779.5	11.9

APPEARANCE	SL Cloudy	ODOR	Slight
COLOR	LT Brown	TURBIDITY	Slight

Comments: _____

March 30, 2020

Ms. Shelly Hennessy
Teklab Inc.
5445 Horseshoe Lake Road
Collinsville, IL 62234

RE: Project: 20020972
Pace Project No.: 30354020

Dear Ms. Hennessy:

Enclosed are the analytical results for sample(s) received by the laboratory on March 10, 2020. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Carin Ferris
carin.ferris@pacelabs.com
724-850-5615
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 20020972
Pace Project No.: 30354020

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 9526

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 20020972

Pace Project No.: 30354020

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30354020001	20020972-001	Water	02/28/20 10:05	03/10/20 09:00
30354020002	20020972-002	Water	03/05/20 12:03	03/10/20 09:00
30354020003	20020972-003	Water	03/05/20 12:24	03/10/20 09:00
30354020004	20020972-004	Water	03/05/20 12:43	03/10/20 09:00
30354020005	20020972-005	Water	03/05/20 13:33	03/10/20 09:00
30354020006	20020972-006	Water	03/05/20 13:56	03/10/20 09:00
30354020007	20020972-007	Water	03/05/20 11:30	03/10/20 09:00
30354020008	20020972-008	Water	03/05/20 14:50	03/10/20 09:00

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 20020972
Pace Project No.: 30354020

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30354020001	20020972-001	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
30354020002	20020972-002	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
30354020003	20020972-003	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
30354020004	20020972-004	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
30354020005	20020972-005	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
30354020006	20020972-006	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
30354020007	20020972-007	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
30354020008	20020972-008	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 20020972

Pace Project No.: 30354020

Method: EPA 903.1

Description: 903.1 Radium 226

Client: Teklab Inc.

Date: March 30, 2020

General Information:

8 samples were analyzed for EPA 903.1. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 20020972

Pace Project No.: 30354020

Method: EPA 904.0

Description: 904.0 Radium 228

Client: Teklab Inc.

Date: March 30, 2020

General Information:

8 samples were analyzed for EPA 904.0. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 20020972
Pace Project No.: 30354020

Method: Total Radium Calculation
Description: Total Radium 228+226
Client: Teklab Inc.
Date: March 30, 2020

General Information:

8 samples were analyzed for Total Radium Calculation. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 20020972

Pace Project No.: 30354020

Sample: 20020972-001 **Lab ID: 30354020001** Collected: 02/28/20 10:05 Received: 03/10/20 09:00 Matrix: Water
PWS: Site ID: Sample Type:

Comments: • Sample collection dates and times were not present on the sample containers.
• Upon receipt at the laboratory, 2.5 mls of nitric acid were added to the sample to meet the sample preservation requirement of pH <2 for radiochemistry analysis. The samples were not preserved <2 within the required 5 days of collection.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	5.20 ± 1.28 (0.757) C:NA T:85%	pCi/L	03/27/20 11:27	13982-63-3	
Radium-228	EPA 904.0	12.8 ± 2.84 (1.88) C:64% T:81%	pCi/L	03/26/20 17:49	15262-20-1	
Total Radium	Total Radium Calculation	18.0 ± 4.12 (2.64)	pCi/L	03/30/20 13:35	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 20020972

Pace Project No.: 30354020

Sample: 20020972-002 **Lab ID: 30354020002** Collected: 03/05/20 12:03 Received: 03/10/20 09:00 Matrix: Water
PWS: Site ID: Sample Type:

Comments: • Sample collection dates and times were not present on the sample containers.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	0.950 ± 0.522 (0.623) C:NA T:99%	pCi/L	03/27/20 11:27	13982-63-3	
Radium-228	EPA 904.0	0.420 ± 0.374 (0.751) C:67% T:85%	pCi/L	03/26/20 17:49	15262-20-1	
Total Radium	Total Radium Calculation	1.37 ± 0.896 (1.37)	pCi/L	03/30/20 13:35	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 20020972

Pace Project No.: 30354020

Sample: 20020972-003 **Lab ID: 30354020003** Collected: 03/05/20 12:24 Received: 03/10/20 09:00 Matrix: Water
PWS: Site ID: Sample Type:

Comments: • Sample collection dates and times were not present on the sample containers.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	0.0942 ± 0.261 (0.507) C:NA T:99%	pCi/L	03/27/20 11:27	13982-63-3	
Radium-228	EPA 904.0	0.563 ± 0.355 (0.653) C:69% T:85%	pCi/L	03/26/20 17:50	15262-20-1	
Total Radium	Total Radium Calculation	0.657 ± 0.616 (1.16)	pCi/L	03/30/20 13:35	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 20020972

Pace Project No.: 30354020

Sample: 20020972-004 **Lab ID: 30354020004** Collected: 03/05/20 12:43 Received: 03/10/20 09:00 Matrix: Water

PWS: Site ID: Sample Type:

Comments: • Sample collection dates and times were not present on the sample containers.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	0.0429 ± 0.347 (0.681) C:NA T:104%	pCi/L	03/27/20 11:27	13982-63-3	
Radium-228	EPA 904.0	0.687 ± 0.403 (0.724) C:69% T:81%	pCi/L	03/26/20 17:50	15262-20-1	
Total Radium	Total Radium Calculation	0.730 ± 0.750 (1.41)	pCi/L	03/30/20 13:35	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 20020972

Pace Project No.: 30354020

Sample: 20020972-005 **Lab ID: 30354020005** Collected: 03/05/20 13:33 Received: 03/10/20 09:00 Matrix: Water

PWS: Site ID: Sample Type:

Comments: • Sample collection dates and times were not present on the sample containers.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	0.448 ± 0.442 (0.673) C:NA T:86%	pCi/L	03/27/20 11:43	13982-63-3	
Radium-228	EPA 904.0	1.02 ± 0.475 (0.792) C:66% T:85%	pCi/L	03/26/20 17:50	15262-20-1	
Total Radium	Total Radium Calculation	1.47 ± 0.917 (1.47)	pCi/L	03/30/20 14:40	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 20020972

Pace Project No.: 30354020

Sample: 20020972-006 **Lab ID: 30354020006** Collected: 03/05/20 13:56 Received: 03/10/20 09:00 Matrix: Water

PWS: Site ID: Sample Type:

Comments: • Sample collection dates and times were not present on the sample containers.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	0.000 ± 0.363 (0.754) C:NA T:95%	pCi/L	03/27/20 11:43	13982-63-3	
Radium-228	EPA 904.0	0.455 ± 0.371 (0.731) C:70% T:79%	pCi/L	03/26/20 17:50	15262-20-1	
Total Radium	Total Radium Calculation	0.455 ± 0.734 (1.49)	pCi/L	03/30/20 14:40	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 20020972

Pace Project No.: 30354020

Sample: 20020972-007 **Lab ID: 30354020007** Collected: 03/05/20 11:30 Received: 03/10/20 09:00 Matrix: Water

PWS: Site ID: Sample Type:

Comments: • Sample collection dates and times were not present on the sample containers.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	3.33 ± 1.41 (0.981) C:NA T:93%	pCi/L	03/27/20 11:43	13982-63-3	
Radium-228	EPA 904.0	6.12 ± 1.61 (1.54) C:69% T:82%	pCi/L	03/26/20 17:50	15262-20-1	
Total Radium	Total Radium Calculation	9.45 ± 3.02 (2.52)	pCi/L	03/30/20 14:40	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 20020972

Pace Project No.: 30354020

Sample: 20020972-008 **Lab ID: 30354020008** Collected: 03/05/20 14:50 Received: 03/10/20 09:00 Matrix: Water

PWS: Site ID: Sample Type:

Comments: • Sample collection dates and times were not present on the sample containers.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	0.421 ± 0.441 (0.690) C:NA T:94%	pCi/L	03/27/20 11:43	13982-63-3	
Radium-228	EPA 904.0	0.696 ± 0.414 (0.751) C:67% T:83%	pCi/L	03/26/20 17:50	15262-20-1	
Total Radium	Total Radium Calculation	1.12 ± 0.855 (1.44)	pCi/L	03/30/20 14:40	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 20020972

Pace Project No.: 30354020

QC Batch: 387506

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Associated Lab Samples: 30354020001, 30354020002, 30354020003, 30354020004, 30354020005, 30354020006, 30354020007, 30354020008

METHOD BLANK: 1877147

Matrix: Water

Associated Lab Samples: 30354020001, 30354020002, 30354020003, 30354020004, 30354020005, 30354020006, 30354020007, 30354020008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0375 ± 0.320 (0.653) C:NA T:97%	pCi/L	03/27/20 11:27	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 20020972

Pace Project No.: 30354020

QC Batch: 387513

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Associated Lab Samples: 30354020001, 30354020002, 30354020003, 30354020004, 30354020005, 30354020006, 30354020007, 30354020008

METHOD BLANK: 1877154

Matrix: Water

Associated Lab Samples: 30354020001, 30354020002, 30354020003, 30354020004, 30354020005, 30354020006, 30354020007, 30354020008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.817 ± 0.438 (0.785) C:73% T:83%	pCi/L	03/26/20 17:47	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 20020972
Pace Project No.: 30354020

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.

Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

TEKLAB, INC. Chain of Custody

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

Are the samples chilled? YES NO With: Ice Blue Ice Preserved in: Lab Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: Sampler: Client QC Level:

Project#

Comments:
 Please analyze for Radium 226/228 on your standard turnaround time.
 Batch QC is required for all analyses requested.
 IL Samples

Contact:

Email:

Requested Due Date:

Billing/PO:

Phone:

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

WO#: 30354020



30354020

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix		Radium 226/228	Radium 226	Radium 228												
	20020972-001	2/28/20 10:05	HNO3	Groundwater	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	001
	20020972-002	3/5/20 12:03	HNO3	Groundwater	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	002
	20020972-003	3/5/20 12:24	HNO3	Groundwater	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	003
	20020972-004	3/5/20 12:43	HNO3	Groundwater	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	004
	20020972-005	3/5/20 13:33	HNO3	Groundwater	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	005
	20020972-006	3/5/20 13:56	HNO3	Groundwater	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	006
	20020972-007	3/5/20 11:30	HNO3	Groundwater	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	007
	20020972-008	3/5/20 14:50	HNO3	Groundwater	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	008
			Unpres	Aqueous	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			Unpres	Aqueous	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			Unpres	Aqueous	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

*Relinquished By	Date/Time	Received By	Date/Time
<i>Shelly Hennessy</i>	3/10/20 1:00	<i>Bill Mountain</i>	3-10-20 20 0900

Resp. to 18 CFR 1.564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

Pittsburgh Lab Sample Condition Upon Receipt



Client Name: TEKlab

Project # 30354020

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: 135755075538

Label	<u>BLM</u>
LIMS Login	<u>BLM</u>

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Thermometer Used N/A

Type of Ice: Wet Blue None

Cooler Temperature Observed Temp N/A °C Correction Factor: — °C Final Temp: — °C

Temp should be above freezing to 6°C

Comments:	pH paper Lot#			Date and Initials of person examining contents:
	Yes	No	N/A	
Chain of Custody Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1. <u>10D2191</u>
Chain of Custody Filled Out:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.
Sampler Name & Signature on COC:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4.
Sample Labels match COC: -Includes date/time/ID Matrix: <u>WT</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5. <u>No date or time on samples</u>
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.
Short Hold Time Analysis (<72hr remaining):	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7.
Rush Turn Around Time Requested:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8.
Sufficient Volume:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.
Correct Containers Used: -Pace Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.
Containers Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11.
Orthophosphate field filtered	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	12.
Hex Cr Aqueous sample field filtered	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	13.
Organic Samples checked for dechlorination:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	14.
Filtered volume received for Dissolved tests	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	15.
All containers have been checked for preservation. exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16. <u>Added 2.5ml of HNO3 to each bottle for sample 001</u>
All containers meet method preservation requirements.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Initial when completed: <u>BLM</u> Date/time of preservation: <u>3-11-2020 0610</u>
				Lot # of added preservative: <u>DL20-0221</u>
Headspace in VOA Vials (>6mm):	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	17.
Trip Blank Present:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	18.
Trip Blank Custody Seals Present	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Rad Samples Screened < 0.5 mrem/hr	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed: <u>BLM</u> Date: <u>3-11-2020</u>

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

A check in this box indicates that additional information has been stored in ereports.

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

February 10, 2021

Eric Staley
City Water, Light & Power
201 E. Lake Shore Drive
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615



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

RE: Ash Pond Monitoring Wells

WorkOrder: 21010971

Dear Eric Staley:

TEKLAB, INC received 8 samples on 1/22/2021 8:40:00 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,



Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com



Report Contents

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

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 21010971
Report Date: 10-Feb-21

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	15
Chain of Custody	Appended

Client: City Water, Light & Power

Work Order: 21010971

Client Project: Ash Pond Monitoring Wells

Report Date: 10-Feb-21

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: City Water, Light & Power

Work Order: 21010971

Client Project: Ash Pond Monitoring Wells

Report Date: 10-Feb-21

Qualifiers

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



Case Narrative

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

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 21010971
Report Date: 10-Feb-21

Cooler Receipt Temp: 4.4 °C

An employee of Teklab, Inc. collected the sample(s).

Radium-226 and Radium-228 analysis was performed by Pace Analytical Services, LLC. See attached report for results.

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

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Accreditations

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

Client: City Water, Light & Power

Work Order: 21010971

Client Project: Ash Pond Monitoring Wells

Report Date: 10-Feb-21

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2022	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2021	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2021	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2021	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2021	Collinsville
Arkansas	ADEQ	88-0966		3/14/2021	Collinsville
Illinois	IDPH	17584		5/31/2021	Collinsville
Kentucky	UST	0073		1/31/2022	Collinsville
Missouri	MDNR	00930		5/31/2021	Collinsville
Missouri	MDNR	930		1/31/2022	Collinsville



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21010971-001
 Matrix: GROUNDWATER

Work Order: 21010971
 Report Date: 10-Feb-21

Client Sample ID: RW-3

Collection Date: 01/21/2021 11:54

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		495.49	ft	1	01/21/2021 11:54	R286611
Depth to water	*	-5.00		8.55	ft	1	01/21/2021 11:54	R286611
Depth to water from measuring point	*	0		11.25	ft	1	01/21/2021 11:54	R286611
Elevation of groundwater surface	*	0		528.25	ft	1	01/21/2021 11:54	R286611
Measuring Point Elevation	*	0		539.50	ft	1	01/21/2021 11:54	R286611
Measuring Point Height Above Land Surface	*	0		2.70	ft	1	01/21/2021 11:54	R286611
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		55.6	°F	1	01/21/2021 11:54	R286611
SW-846 9040B								
pH, Field	*	1.00		7.13		1	01/21/2021 11:54	R286611
SW-846 9050A								
Spec. Conductance, Field	*	1.00		709	µmhos/cm @25C	1	01/21/2021 11:54	R286611
STANDARD METHODS 2540 C (TOTAL) 1997								
Total Dissolved Solids	NELAP	20		364	mg/L	1	01/27/2021 16:35	R286820
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		15	mg/L	1	01/25/2021 17:31	R286658
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.42	mg/L	1	01/25/2021 13:41	R286676
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		26	mg/L	1	01/25/2021 17:31	R286659
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		0.116	mg/L	1	01/27/2021 12:03	173168
Barium	NELAP	0.0025		0.155	mg/L	1	01/25/2021 18:41	173168
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	01/25/2021 18:41	173168
Boron	NELAP	0.0200		0.169	mg/L	1	01/27/2021 12:03	173168
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	01/25/2021 18:41	173168
Calcium	NELAP	0.100	S	68.2	mg/L	1	01/25/2021 18:41	173168
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	01/25/2021 18:41	173168
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	01/25/2021 18:41	173168
Lead	NELAP	0.0150		< 0.0150	mg/L	1	01/25/2021 18:41	173168
Lithium	NELAP	0.0050		0.0071	mg/L	1	01/25/2021 18:41	173168
Molybdenum	NELAP	0.0100		0.0109	mg/L	1	01/25/2021 18:41	173168
<i>Matrix spike control limits for Ca are not applicable due to high sample/spike ratio.</i>								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	01/27/2021 21:06	173169
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	01/26/2021 5:10	173169
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	01/26/2021 5:10	173169
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	01/25/2021 12:06	173162
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	02/05/2021 0:00	R287302
Radium-228	*	0		See attached	pci/L	1	02/05/2021 0:00	R287302



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21010971-002
 Matrix: GROUNDWATER

Work Order: 21010971
 Report Date: 10-Feb-21

Client Sample ID: AP-1

Collection Date: 01/21/2021 12:18

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		504.29	ft	1	01/21/2021 12:18	R286611
Depth to water	*	-5.00		8.70	ft	1	01/21/2021 12:18	R286611
Depth to water from measuring point	*	0		10.97	ft	1	01/21/2021 12:18	R286611
Elevation of groundwater surface	*	0		524.40	ft	1	01/21/2021 12:18	R286611
Measuring Point Elevation	*	0		535.37	ft	1	01/21/2021 12:18	R286611
Measuring Point Height Above Land Surface	*	0		2.27	ft	1	01/21/2021 12:18	R286611
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		57.2	°F	1	01/21/2021 12:18	R286611
SW-846 9040B								
pH, Field	*	1.00		6.69		1	01/21/2021 12:18	R286611
SW-846 9050A								
Spec. Conductance, Field	*	1.00		1650	µmhos/cm @25C	1	01/21/2021 12:18	R286611
STANDARD METHODS 2540 C (TOTAL) 1997								
Total Dissolved Solids	NELAP	20		1500	mg/L	1	01/27/2021 16:35	R286820
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		976	mg/L	20	01/25/2021 18:11	R286658
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.20	mg/L	1	01/25/2021 13:45	R286676
SW-846 9251 (TOTAL)								
Chloride	NELAP	20		58	mg/L	5	01/25/2021 18:05	R286659
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	01/27/2021 12:14	173168
Barium	NELAP	0.0025		0.368	mg/L	1	01/25/2021 18:52	173168
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	01/25/2021 18:52	173168
Boron	NELAP	0.200		21.7	mg/L	10	01/27/2021 11:23	173168
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	01/25/2021 18:52	173168
Calcium	NELAP	0.100		233	mg/L	1	01/25/2021 18:52	173168
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	01/25/2021 18:52	173168
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	01/25/2021 18:52	173168
Lead	NELAP	0.0150		< 0.0150	mg/L	1	01/25/2021 18:52	173168
Lithium	NELAP	0.0050		0.0101	mg/L	1	01/25/2021 18:52	173168
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	01/25/2021 18:52	173168
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	01/26/2021 7:45	173169
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	01/26/2021 7:45	173169
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	01/26/2021 7:45	173169
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020	S	< 0.00020	mg/L	1	01/25/2021 12:08	173162
<i>Matrix spike did not recover within control limits for Hg due to matrix interference. Verified by bench spike.</i>								
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	02/05/2021 0:00	R287302
Radium-228	*	0		See attached	pci/L	1	02/05/2021 0:00	R287302



Laboratory Results

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Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21010971-003
 Matrix: GROUNDWATER

Work Order: 21010971
 Report Date: 10-Feb-21

Client Sample ID: AP-2

Collection Date: 01/21/2021 12:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		514.77	ft	1	01/21/2021 12:30	R286611
Depth to water	*	-5.00		5.03	ft	1	01/21/2021 12:30	R286611
Depth to water from measuring point	*	0		7.53	ft	1	01/21/2021 12:30	R286611
Elevation of groundwater surface	*	0		528.57	ft	1	01/21/2021 12:30	R286611
Measuring Point Elevation	*	0		536.10	ft	1	01/21/2021 12:30	R286611
Measuring Point Height Above Land Surface	*	0		2.50	ft	1	01/21/2021 12:30	R286611
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		55.6	°F	1	01/21/2021 12:30	R286611
SW-846 9040B								
pH, Field	*	1.00		6.58		1	01/21/2021 12:30	R286611
SW-846 9050A								
Spec. Conductance, Field	*	1.00		1370	µmhos/cm @25C	1	01/21/2021 12:30	R286611
STANDARD METHODS 2540 C (TOTAL) 1997								
Total Dissolved Solids	NELAP	20		1090	mg/L	1	01/27/2021 16:35	R286820
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		367	mg/L	20	01/25/2021 18:21	R286658
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.22	mg/L	1	01/25/2021 13:47	R286676
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		39	mg/L	1	01/25/2021 18:16	R286659
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	01/27/2021 12:18	173168
Barium	NELAP	0.0025		0.0661	mg/L	1	01/25/2021 18:56	173168
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	01/25/2021 18:56	173168
Boron	NELAP	0.0200		3.67	mg/L	1	01/25/2021 18:56	173168
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	01/25/2021 18:56	173168
Calcium	NELAP	0.100		202	mg/L	1	01/25/2021 18:56	173168
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	01/25/2021 18:56	173168
Cobalt	NELAP	0.0050		0.0097	mg/L	1	01/25/2021 18:56	173168
Lead	NELAP	0.0150		< 0.0150	mg/L	1	01/25/2021 18:56	173168
Lithium	NELAP	0.0050		0.0063	mg/L	1	01/25/2021 18:56	173168
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	01/25/2021 18:56	173168
<i>Sample result(s) for B exceed 10 times the CCB. Data is reportable per the TNI Standard.</i>								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	01/26/2021 7:53	173169
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	01/26/2021 7:53	173169
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	01/26/2021 7:53	173169
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	01/25/2021 12:15	173162
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	02/05/2021 0:00	R287302
Radium-228	*	0		See attached	pci/L	1	02/05/2021 0:00	R287302



Laboratory Results

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Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21010971-004
 Matrix: GROUNDWATER

Work Order: 21010971
 Report Date: 10-Feb-21

Client Sample ID: AP-3

Collection Date: 01/21/2021 12:43

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		514.45	ft	1	01/21/2021 12:43	R286611
Depth to water	*	-5.00		7.48	ft	1	01/21/2021 12:43	R286611
Depth to water from measuring point	*	0		9.18	ft	1	01/21/2021 12:43	R286611
Elevation of groundwater surface	*	0		526.22	ft	1	01/21/2021 12:43	R286611
Measuring Point Elevation	*	0		535.40	ft	1	01/21/2021 12:43	R286611
Measuring Point Height Above Land Surface	*	0		1.70	ft	1	01/21/2021 12:43	R286611
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		55.6	°F	1	01/21/2021 12:43	R286611
SW-846 9040B								
pH, Field	*	1.00		6.73		1	01/21/2021 12:43	R286611
SW-846 9050A								
Spec. Conductance, Field	*	1.00		1080	µmhos/cm @25C	1	01/21/2021 12:43	R286611
STANDARD METHODS 2540 C (TOTAL) 1997								
Total Dissolved Solids	NELAP	20		846	mg/L	1	01/27/2021 16:36	R286820
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		388	mg/L	10	01/25/2021 18:32	R286658
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.21	mg/L	1	01/25/2021 13:49	R286676
SW-846 9251 (TOTAL)								
Chloride	NELAP	8		37	mg/L	2	01/25/2021 18:27	R286659
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	01/27/2021 12:22	173168
Barium	NELAP	0.0025		0.0858	mg/L	1	01/25/2021 18:59	173168
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	01/25/2021 18:59	173168
Boron	NELAP	0.0200		16.8	mg/L	1	01/25/2021 18:59	173168
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	01/25/2021 18:59	173168
Calcium	NELAP	0.100		139	mg/L	1	01/25/2021 18:59	173168
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	01/25/2021 18:59	173168
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	01/25/2021 18:59	173168
Lead	NELAP	0.0150		< 0.0150	mg/L	1	01/25/2021 18:59	173168
Lithium	NELAP	0.0050		0.0052	mg/L	1	01/25/2021 18:59	173168
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	01/25/2021 18:59	173168
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	01/26/2021 8:01	173169
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	01/26/2021 8:01	173169
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	01/26/2021 8:01	173169
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	01/25/2021 12:23	173162
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	02/05/2021 0:00	R287302
Radium-228	*	0		See attached	pci/L	1	02/05/2021 0:00	R287302



Laboratory Results

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Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21010971-005
 Matrix: GROUNDWATER

Work Order: 21010971
 Report Date: 10-Feb-21

Client Sample ID: AP-4

Collection Date: 01/21/2021 13:11

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		496.65	ft	1	01/21/2021 13:11	R286611
Depth to water	*	-5.00		7.40	ft	1	01/21/2021 13:11	R286611
Depth to water from measuring point	*	0		10.56	ft	1	01/21/2021 13:11	R286611
Elevation of groundwater surface	*	0		546.50	ft	1	01/21/2021 13:11	R286611
Measuring Point Elevation	*	0		557.06	ft	1	01/21/2021 13:11	R286611
Measuring Point Height Above Land Surface	*	0		3.16	ft	1	01/21/2021 13:11	R286611
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		57.9	°F	1	01/21/2021 13:11	R286611
SW-846 9040B								
pH, Field	*	1.00		6.97		1	01/21/2021 13:11	R286611
SW-846 9050A								
Spec. Conductance, Field	*	1.00		876	µmhos/cm @25C	1	01/21/2021 13:11	R286611
STANDARD METHODS 2540 C (TOTAL) 1997								
Total Dissolved Solids	NELAP	20		492	mg/L	1	01/27/2021 16:36	R286820
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		< 10	mg/L	1	01/25/2021 18:37	R286658
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.12	mg/L	1	01/25/2021 13:51	R286676
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		13	mg/L	1	01/25/2021 18:38	R286659
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		0.0359	mg/L	1	01/25/2021 19:18	173168
Barium	NELAP	0.0025		0.474	mg/L	1	01/25/2021 19:18	173168
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	01/25/2021 19:18	173168
Boron	NELAP	0.0200		0.0996	mg/L	1	01/27/2021 12:57	173168
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	01/25/2021 19:18	173168
Calcium	NELAP	0.100		117	mg/L	1	01/25/2021 19:18	173168
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	01/25/2021 19:18	173168
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	01/25/2021 19:18	173168
Lead	NELAP	0.0150		< 0.0150	mg/L	1	01/25/2021 19:18	173168
Lithium	NELAP	0.0050		0.0087	mg/L	1	01/25/2021 19:18	173168
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	01/25/2021 19:18	173168
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	01/26/2021 8:09	173169
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	01/26/2021 8:09	173169
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	01/26/2021 8:09	173169
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	01/25/2021 12:30	173162
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	02/05/2021 0:00	R287302
Radium-228	*	0		See attached	pci/L	1	02/05/2021 0:00	R287302



Laboratory Results

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Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21010971-006
 Matrix: GROUNDWATER

Work Order: 21010971
 Report Date: 10-Feb-21

Client Sample ID: AP-5

Collection Date: 01/21/2021 13:55

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		552.63	ft	1	01/21/2021 13:55	R286611
Depth to water	*	-5.00		18.26	ft	1	01/21/2021 13:55	R286611
Depth to water from measuring point	*	0		20.56	ft	1	01/21/2021 13:55	R286611
Elevation of groundwater surface	*	0		563.34	ft	1	01/21/2021 13:55	R286611
Measuring Point Elevation	*	0		583.90	ft	1	01/21/2021 13:55	R286611
Measuring Point Height Above Land Surface	*	0		2.30	ft	1	01/21/2021 13:55	R286611
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		55.0	°F	1	01/21/2021 13:55	R286611
SW-846 9040B								
pH, Field	*	1.00		7.27		1	01/21/2021 13:55	R286611
SW-846 9050A								
Spec. Conductance, Field	*	1.00		597	µmhos/cm @25C	1	01/21/2021 13:55	R286611
STANDARD METHODS 2540 C (TOTAL) 1997								
Total Dissolved Solids	NELAP	20		362	mg/L	1	01/27/2021 16:37	R286820
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		46	mg/L	1	01/25/2021 18:59	R286658
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.34	mg/L	1	01/25/2021 13:53	R286676
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		< 4	mg/L	1	01/25/2021 18:59	R286659
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	01/25/2021 19:21	173168
Barium	NELAP	0.0025		0.0429	mg/L	1	01/25/2021 19:21	173168
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	01/25/2021 19:21	173168
Boron	NELAP	0.0200		0.0256	mg/L	1	01/27/2021 13:20	173168
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	01/25/2021 19:21	173168
Calcium	NELAP	0.100		75.4	mg/L	1	01/25/2021 19:21	173168
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	01/25/2021 19:21	173168
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	01/25/2021 19:21	173168
Lead	NELAP	0.0150		< 0.0150	mg/L	1	01/25/2021 19:21	173168
Lithium	NELAP	0.0050		< 0.0050	mg/L	1	01/25/2021 19:21	173168
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	01/25/2021 19:21	173168
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	01/26/2021 8:17	173169
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	01/26/2021 8:17	173169
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	01/26/2021 8:17	173169
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	01/25/2021 12:32	173162
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	02/05/2021 0:00	R287302
Radium-228	*	0		See attached	pci/L	1	02/05/2021 0:00	R287302



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21010971-007
 Matrix: GROUNDWATER

Work Order: 21010971
 Report Date: 10-Feb-21

Client Sample ID: AP-6

Collection Date: 01/21/2021 10:48

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		498.20	ft	1	01/21/2021 10:48	R286611
Depth to water	*	-5.00		7.47	ft	1	01/21/2021 10:48	R286611
Depth to water from measuring point	*	0		9.89	ft	1	01/21/2021 10:48	R286611
Elevation of groundwater surface	*	0		527.93	ft	1	01/21/2021 10:48	R286611
Measuring Point Elevation	*	0		537.82	ft	1	01/21/2021 10:48	R286611
Measuring Point Height Above Land Surface	*	0		2.42	ft	1	01/21/2021 10:48	R286611
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		55.0	°F	1	01/21/2021 10:48	R286611
SW-846 9040B								
pH, Field	*	1.00		7.21		1	01/21/2021 10:48	R286611
SW-846 9050A								
Spec. Conductance, Field	*	1.00		703	µmhos/cm @25C	1	01/21/2021 10:48	R286611
STANDARD METHODS 2540 C (TOTAL) 1997								
Total Dissolved Solids	NELAP	20		388	mg/L	1	01/27/2021 16:40	R286820
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		< 10	mg/L	1	01/25/2021 19:07	R286658
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.45	mg/L	1	01/25/2021 13:55	R286676
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		35	mg/L	1	01/25/2021 19:07	R286659
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	01/25/2021 19:25	173168
Barium	NELAP	0.0025		0.126	mg/L	1	01/25/2021 19:25	173168
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	01/25/2021 19:25	173168
Boron	NELAP	0.0200		0.254	mg/L	1	01/27/2021 13:29	173168
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	01/25/2021 19:25	173168
Calcium	NELAP	0.100		62.7	mg/L	1	01/25/2021 19:25	173168
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	01/25/2021 19:25	173168
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	01/25/2021 19:25	173168
Lead	NELAP	0.0150		< 0.0150	mg/L	1	01/25/2021 19:25	173168
Lithium	NELAP	0.0050		0.0081	mg/L	1	01/25/2021 19:25	173168
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	01/25/2021 19:25	173168
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	01/26/2021 8:25	173169
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	01/26/2021 8:25	173169
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	01/26/2021 8:25	173169
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	01/25/2021 12:35	173162
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	02/05/2021 0:00	R287302
Radium-228	*	0		See attached	pci/L	1	02/05/2021 0:00	R287302



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21010971-008
 Matrix: GROUNDWATER

Work Order: 21010971
 Report Date: 10-Feb-21

Client Sample ID: AP-7

Collection Date: 01/21/2021 11:25

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		496.50	ft	1	01/21/2021 11:25	R286611
Depth to water	*	-5.00		10.43	ft	1	01/21/2021 11:25	R286611
Depth to water from measuring point	*	0		13.09	ft	1	01/21/2021 11:25	R286611
Elevation of groundwater surface	*	0		525.93	ft	1	01/21/2021 11:25	R286611
Measuring Point Elevation	*	0		539.02	ft	1	01/21/2021 11:25	R286611
Measuring Point Height Above Land Surface	*	0		2.66	ft	1	01/21/2021 11:25	R286611
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		53.2	°F	1	01/21/2021 11:25	R286611
SW-846 9040B								
pH, Field	*	1.00		7.20		1	01/21/2021 11:25	R286611
SW-846 9050A								
Spec. Conductance, Field	*	1.00		843	µmhos/cm @25C	1	01/21/2021 11:25	R286611
STANDARD METHODS 2540 C (TOTAL) 1997								
Total Dissolved Solids	NELAP	20		478	mg/L	1	01/27/2021 16:41	R286820
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		< 10	mg/L	1	01/28/2021 10:44	R286850
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.58	mg/L	1	01/25/2021 13:56	R286676
SW-846 9251 (TOTAL)								
Chloride	NELAP	8		67	mg/L	2	01/25/2021 19:12	R286659
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		0.0415	mg/L	1	01/25/2021 19:29	173168
Barium	NELAP	0.0025		0.153	mg/L	1	01/25/2021 19:29	173168
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	01/25/2021 19:29	173168
Boron	NELAP	0.0200		0.409	mg/L	1	01/25/2021 19:29	173168
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	01/25/2021 19:29	173168
Calcium	NELAP	0.100		55.7	mg/L	1	01/25/2021 19:29	173168
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	01/25/2021 19:29	173168
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	01/25/2021 19:29	173168
Lead	NELAP	0.0150		< 0.0150	mg/L	1	01/25/2021 19:29	173168
Lithium	NELAP	0.0050		0.0112	mg/L	1	01/25/2021 19:29	173168
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	01/25/2021 19:29	173168
<i>Sample result(s) for B exceed 10 times the CCB. Data is reportable per the TNI Standard.</i>								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	01/26/2021 8:33	173169
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	01/26/2021 8:33	173169
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	01/26/2021 8:33	173169
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	01/25/2021 12:37	173162
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	02/05/2021 0:00	R287302
Radium-228	*	0		See attached	pci/L	1	02/05/2021 0:00	R287302



Receiving Check List

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

Client: City Water, Light & Power

Work Order: 21010971

Client Project: Ash Pond Monitoring Wells

Report Date: 10-Feb-21

Carrier: Jordan Evans

Received By: EAH

Completed by:

Reviewed by:

On:

22-Jan-21

Elizabeth A. Hurley

On:

22-Jan-21

Shelly A. Hennessy

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 4.4 |
| Type of thermal preservation? | None <input type="checkbox"/> | Ice <input checked="" 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 checked="" type="checkbox"/> | Lab <input type="checkbox"/> | NA <input 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 type="checkbox"/> | No <input checked="" type="checkbox"/> | NA <input type="checkbox"/> |
| NPDES/CWA TCN interferences checked/treated in the field? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | NA <input type="checkbox"/> |

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

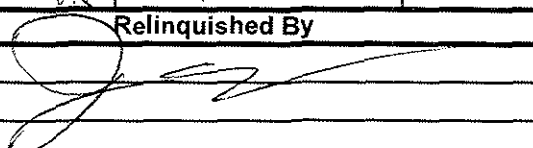
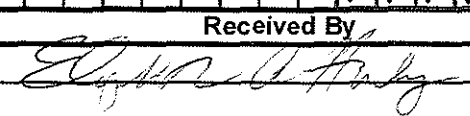
Additional nitric acid (75189) was needed in RW-3, AP-1, AP-2, AP-3, and AP-4 upon arrival at the laboratory. - PRY/ehurley - 1/22/2021 11:01:38 AM

pH strip #74534. - ehurley - 1/22/2021 11:02:05 AM

CHAIN OF CUSTODY

Pg 1 of 1 Workorder # 21010971

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

Client: <u>City Water, Light & Power</u> Address: <u>201 E. Lake Shore Drive</u> City/State/Zip: <u>Springfield IL 62712</u> Contact: <u>Eric Staley</u> Phone: <u>(217) 757-8610</u> Email: <u>eric.staley@cwlp.com</u> Fax:				Samples on: <input checked="" type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input type="checkbox"/> NO ICE <u>4.4</u> °C Preserved in: <input checked="" type="checkbox"/> LAB <input type="checkbox"/> FIELD <u>FOR LAB USE ONLY</u> <u>LIG 5</u> LAB NOTES: <u>*Wells have not been installed (AP-8, AP-9, AP-10)</u> <u>DH 74534 Added HNO3 to RW3 AP1 AP2 AP3 AP4 AP7.</u>													
Are these samples known to be involved in litigation? If yes, a surcharge will apply: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are these samples known to be hazardous? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <u>Permit on file</u>				Client Comments: *elevations, pH, conductivity, temperature **Sb Se Tl (ICPMS) As Ba Be B Cd Ca Cr Co Pb Li Hg Mo													
PROJECT NAME/NUMBER <u>Ash Pond Monitoring Wells</u>		SAMPLE COLLECTOR'S NAME <u>Jordan Evans</u>		# and Type of Containers		INDICATE ANALYSIS REQUESTED											
RESULTS REQUESTED <input checked="" type="checkbox"/> Standard <input type="checkbox"/> 1-2 Day (100% Surcharge) <input type="checkbox"/> Other <input type="checkbox"/> 3 Day (50% Surcharge)		BILLING INSTRUCTIONS		UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl F SO4 TO5 (T)	Metals (T)**	Radium-226	Radium-228
Lab Use Only	Sample ID	Date/Time Sampled	Matrix	UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl F SO4 TO5 (T)	Metals (T)**	Radium-226	Radium-228
	<u>21010971-001</u>	<u>RW-3</u> <u>1/21/21 1154</u>	<u>Groundwater</u>	<u>2</u>	<u>2</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>002</u>	<u>AP-1</u> <u>1/21/21 1218</u>	<u>Groundwater</u>	<u>2</u>	<u>2</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>003</u>	<u>AP-2</u> <u>1/21/21 1230</u>	<u>Groundwater</u>	<u>2</u>	<u>2</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>004</u>	<u>AP-3</u> <u>1/21/21 TE 1048</u>	<u>Groundwater</u>	<u>2</u>	<u>2</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>005</u>	<u>AP-4</u> <u>1/21/21 1311</u>	<u>Groundwater</u>	<u>2</u>	<u>2</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>006</u>	<u>AP-5</u> <u>1/21/21 1355</u>	<u>Groundwater</u>	<u>2</u>	<u>2</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>007</u>	<u>AP-6</u> <u>1/21/21 1048</u>	<u>Groundwater</u>	<u>2</u>	<u>2</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>008</u>	<u>AP-7</u> <u>1/21/21 1125</u>	<u>Groundwater</u>	<u>2</u>	<u>2</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>TE 1048</u> <u>009</u>	<u>AP-8*</u>	<u>Groundwater</u>	<u>2</u>	<u>2</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>1/22/21</u> <u>010</u>	<u>AP-9*</u>	<u>Groundwater</u>	<u>2</u>	<u>2</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>011</u>	<u>AP-10*</u>	<u>Groundwater</u>	<u>2</u>	<u>2</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Relinquished By 		Date/Time <u>1/22/21 840</u>		Received By 				Date/Time <u>1/22/21 1140</u>									

PR4
1/22/21

*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

TEKLAB, INC. FIELD INFORMATION FORM

SITE NAME: CWLP

SAMPLE COLLECTOR: Jordan Evans

QUARTER/YEAR: Q1 2021

SAMPLING POINT: RW3

Well Dry

PURGE DATE	START PURGE TIME	ELAPSED HOURS	WATER VOL. IN CASING (gallons)	ACTUAL VOL. PURGED (gallons)
1/21/21	1154		5.3	3.0

	YES	NO
Micro Purge		X
Purge Equipment Dedicated		X
Sampling Equipment Dedicated		X

A	Bailer - Teflon	H	Peristaltic Pump
C	Bailer - Polypropylene/Polyethylene	I	Submersible Pump
F	Bailer - Stainless Steel	L	Bladder Pump
Purging Device		L	Sampling Device

A	Teflon	D	Polypropylene
B	Tygon	E	Polyethylene
C	Rope X (Specify)		
Purging Tubing		A	Sampling Tubing

A	Inline Disposable	B	Pressure
Field Filtering	YES	NO	Filtering Device Used

Depth to Water (ft)	Well Depth (ft)
11.25	44.01

GALLONS	pH (std)	CONDUCTIVITY (um/cm)	TEMP (C)
0.5	7.13	704	12.9
1.0	7.13	708	13.0
1.5	7.13	709	13.1

DTW
13.15
14.12
15.14

APPEARANCE	Clear	ODOR	none
COLOR	none	TURBIDITY	none

Comments: _____

TEKLAB, INC. FIELD INFORMATION FORM

SITE NAME: CWLP

SAMPLE COLLECTOR: Jordan Evans

QUARTER/YEAR: Q1 2021

SAMPLING POINT: API

Well Dry

PURGE DATE	START PURGE TIME	ELAPSED HOURS	WATER VOL. IN CASING (gallons)	ACTUAL VOL. PURGED (gallons)
11/21/21	12:18		3.3	3.0

	YES	NO
Micro Purge		X
Purge Equipment Dedicated		X
Sampling Equipment Dedicated		X

A	Bailer – Teflon	H	Peristaltic Pump
C	Bailer – Polypropylene/Polyethylene	I	Submersible Pump
F	Bailer – Stainless Steel	L	Bladder Pump

Purging Device	L	Sampling Device	L
----------------	---	-----------------	---

A	Teflon	D	Polypropylene
B	Tygon	E	Polyethylene
C	Rope X (Specify)		

Purging Tubing	A	Sampling Tubing	A
----------------	---	-----------------	---

A	Inline Disposable	B	Pressure
Field Filtering	YES	NO	Filtering Device Used
			—

Depth to Water (ft)	10.97	Well Depth (ft)	31.09
---------------------	-------	-----------------	-------

GALLONS	pH (std)	CONDUCTIVITY (um/cm)	TEMP (C)
0.5	6.70	1561	13.3
1.0	6.71	1630	13.8
1.5	6.69	1649	14.0

11.34
11.48
11.71

APPEARANCE	Clear	ODOR	None
COLOR	None	TURBIDITY	None

Comments: _____

TEKLAB, INC. FIELD INFORMATION FORM

SITE NAME: CWLP

SAMPLE COLLECTOR: Jordan Evans

QUARTER/YEAR: Q1 2021

SAMPLING POINT: AP2

Well Dry

PURGE DATE	START PURGE TIME	ELAPSED HOURS	WATER VOL. IN CASING (gallons)	ACTUAL VOL. PURGED (gallons)
1/21/21	1230		2.2	3.0

	YES	NO
Micro Purge		X
Purge Equipment Dedicated		X
Sampling Equipment Dedicated		X

A	Bailer – Teflon	H	Peristaltic Pump
C	Bailer – Polypropylene/Polyethylene	I	Submersible Pump
F	Bailer – Stainless Steel	L	Bladder Pump
Purging Device		C	Sampling Device

A	Teflon	D	Polypropylene
B	Tygon	E	Polyethylene
C	Rope X (Specify)		
Purging Tubing		A	Sampling Tubing

A	Inline Disposable	B	Pressure
Field Filtering	YES	NO	Filtering Device Used

Depth to Water (ft)	7.53	Well Depth (ft)	21.30
---------------------	------	-----------------	-------

GALLONS	pH (std)	CONDUCTIVITY (um/cm)	TEMP (C)
0.5	6.58	1361	13.2
1.0	6.58	1365	13.1
1.5	6.58	1372	13.1

7.71
7.71
7.71

APPEARANCE	Clear	ODOR	None
COLOR	None	TURBIDITY	None

Comments:

TEKLAB, INC. FIELD INFORMATION FORM

SITE NAME: CWLP

SAMPLE COLLECTOR: Jordan Evans

QUARTER/YEAR: Q1 2021

SAMPLING POINT: AP3

Well Dry

PURGE DATE	START PURGE TIME	ELAPSED HOURS	WATER VOL. IN CASING (gallons)	ACTUAL VOL. PURGED (gallons)
1/21/21	1243		1.6	3.0

	YES	NO
Micro Purge		X
Purge Equipment Dedicated		X
Sampling Equipment Dedicated		X

A	Bailer – Teflon	H	Peristaltic Pump
C	Bailer – Polypropylene/Polyethylene	I	Submersible Pump
F	Bailer – Stainless Steel	L	Bladder Pump
Purging Device		L	Sampling Device

A	Teflon	D	Polypropylene
B	Tygon	E	Polyethylene
C	Rope X (Specify)		
Purging Tubing		A	Sampling Tubing

A	Inline Disposable	B	Pressure
Field Filtering	YES	NO	Filtering Device Used

Depth to Water (ft)	Well Depth (ft)
9.18	19.11

GALLONS	pH (std)	CONDUCTIVITY (um/cm)	TEMP (C)
0.5	6.72	1078	12.8
1.0	6.74	1076	13.1
1.5	6.73	1077	13.1

9.38
9.38
7.36

APPEARANCE	ODOR
Clear	None
COLOR	TURBIDITY
None	None

Comments: _____

TEKLAB, INC. FIELD INFORMATION FORM

SITE NAME: CWLP

SAMPLE COLLECTOR: Jordan Evans

QUARTER/YEAR: Q1 2021

SAMPLING POINT: AP4

Well Dry

PURGE DATE	START PURGE TIME	ELAPSED HOURS	WATER VOL. IN CASING (gallons)	ACTUAL VOL. PURGED (gallons)
1/21/21	1311		8.5	3.0

	YES	NO
Micro Purge		X
Purge Equipment Dedicated		X
Sampling Equipment Dedicated		X

A	Bailer – Teflon	H	Peristaltic Pump
C	Bailer – Polypropylene/Polyethylene	I	Submersible Pump
F	Bailer – Stainless Steel	L	Bladder Pump
Purging Device		L	Sampling Device
			L

A	Teflon	D	Polypropylene
B	Tygon	E	Polyethylene
C	Rope X (Specify)		
Purging Tubing		A	Sampling Tubing
			A

A	Inline Disposable	B	Pressure
Field Filtering	YES	NO	Filtering Device Used
			—

Depth to Water (ft)	10.50	Well Depth (ft)	67.72
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GALLONS	pH (std)	CONDUCTIVITY (um/cm)	TEMP (C)
0.5	6.96	857	14.4
1.0	6.97	873	14.4
1.5	6.97	876	14.4

11.78
11.78
11.78

APPEARANCE	clear	ODOR	none
COLOR	none	TURBIDITY	none

Comments: _____

TEKLAB, INC. FIELD INFORMATION FORM

SITE NAME: CWLP

SAMPLE COLLECTOR: Jordan Evans

QUARTER/YEAR: Q1 2021

SAMPLING POINT: APS

Well Dry

PURGE DATE	START PURGE TIME	ELAPSED HOURS	WATER VOL. IN CASING (gallons)	ACTUAL VOL. PURGED (gallons)
1/21/21	1355		1.7	3.5

	YES	NO
Micro Purge		X
Purge Equipment Dedicated		X
Sampling Equipment Dedicated		X

A	Bailer – Teflon	H	Peristaltic Pump
C	Bailer – Polypropylene/Polyethylene	I	Submersible Pump
F	Bailer – Stainless Steel	L	Bladder Pump
Purging Device		L	Sampling Device

A	Teflon	D	Polypropylene
B	Tygon	E	Polyethylene
C	Rope X (Specify)		
Purging Tubing		A	Sampling Tubing

A	Inline Disposable	B	Pressure
Field Filtering	YES	NO	Filtering Device Used

Depth to Water (ft)	Well Depth (ft)
20.56	31.15

GALLONS	pH (std)	CONDUCTIVITY (um/cm)	TEMP (C)
1.0	7.46	594	12.6
1.5	7.27	595	12.7
2.0	7.27	591	12.9
2.5	7.27	597	12.8

DTW
2092
21.67
21.67

APPEARANCE	Clear	ODOR	None
COLOR	None	TURBIDITY	None

Comments: _____

TEKLAB, INC. FIELD INFORMATION FORM

SITE NAME: CWLP

SAMPLE COLLECTOR: Jordan Evans

QUARTER/YEAR: Q1 2021

SAMPLING POINT: AP6

Well Dry

PURGE DATE	START PURGE TIME	ELAPSED HOURS	WATER VOL. IN CASING (gallons)	ACTUAL VOL. PURGED (gallons)
1/21/21	1048			4.0

	YES	NO
Micro Purge		X
Purge Equipment Dedicated		X
Sampling Equipment Dedicated		X

A	Bailer -- Teflon	H	Peristaltic Pump
C	Bailer -- Polypropylene/Polyethylene	I	Submersible Pump
F	Bailer -- Stainless Steel	L	Bladder Pump
Purging Device		L	Sampling Device

A	Teflon	D	Polypropylene
B	Tygon	E	Polyethylene
C	Rope X (Specify)		
Purging Tubing		A	Sampling Tubing

A	Inline Disposable	B	Pressure
Field Filtering	YES	NO	Filtering Device Used

Depth to Water (ft)	Well Depth (ft)
9.89	

GALLONS	pH (std)	CONDUCTIVITY (um/cm)	TEMP (C)
0.5	7.14	715	11.0
1.0	7.21	703	12.4
1.5	7.22	698	12.6
2.0	7.21	703	12.8

DTW
11.88
12.85
14.02
15.09

APPEARANCE	Clear	ODOR	none
COLOR	none	TURBIDITY	none

Comments: _____

TEKLAB, INC. FIELD INFORMATION FORM

SITE NAME: CWLP

SAMPLE COLLECTOR: Jordan Evans

QUARTER/YEAR: Q1 2021

SAMPLING POINT: AP7

Well Dry

PURGE DATE	START PURGE TIME	ELAPSED HOURS	WATER VOL. IN CASING (gallons)	ACTUAL VOL. PURGED (gallons)
1/24/21	1125			3.0

	YES	NO
Micro Purge		X
Purge Equipment Dedicated		X
Sampling Equipment Dedicated		X

A	Bailer – Teflon	H	Peristaltic Pump
C	Bailer – Polypropylene/Polyethylene	I	Submersible Pump
F	Bailer – Stainless Steel	L	Bladder Pump
Purging Device		L	Sampling Device

A	Teflon	D	Polypropylene
B	Tygon	E	Polyethylene
C	Rope X (Specify)		
Purging Tubing		A	Sampling Tubing

A	Inline Disposable	B	Pressure
Field Filtering	YES	NO	Filtering Device Used

Depth to Water (ft)	13.09	Well Depth (ft)	
---------------------	-------	-----------------	--

GALLONS	pH (std)	CONDUCTIVITY (um/cm)	TEMP (C)
0.5	7.20	851	11.4
1.0	7.21	843	11.8
1.5	7.20	843	11.8

DTW
14.72
15.20
15.40

APPEARANCE	clear	ODOR	none
COLOR	none	TURBIDITY	none

Comments: _____

TEKLAB, INC. FIELD INFORMATION FORM

SITE NAME: CWLP

SAMPLE COLLECTOR: Jordan Evans

QUARTER/YEAR: Q1 2021

SAMPLING POINT: APS

Well Dry

PURGE DATE	START PURGE TIME	ELAPSED HOURS	WATER VOL. IN CASING (gallons)	ACTUAL VOL. PURGED (gallons)
1/21/21				

	YES	NO
Micro Purge		X
Purge Equipment Dedicated		X
Sampling Equipment Dedicated		X

A	Bailer – Teflon	H	Peristaltic Pump
C	Bailer – Polypropylene/Polyethylene	I	Submersible Pump
F	Bailer – Stainless Steel	L	Bladder Pump
Purging Device		Sampling Device	

A	Teflon	D	Polypropylene
B	Tygon	E	Polyethylene
C	Rope X (Specify)		
Purging Tubing		Sampling Tubing	

A	Inline Disposable	B	Pressure
Field Filtering	YES	NO	Filtering Device Used

Depth to Water (ft)		Well Depth (ft)	
----------------------------	--	------------------------	--

GALLONS	pH (std)	CONDUCTIVITY (um/cm)	TEMP (C)

APPEARANCE	ODOR
COLOR	TURBIDITY

Comments: * Well has not been installed yet.

TEKLAB, INC. FIELD INFORMATION FORM

SITE NAME: CWLP

SAMPLE COLLECTOR: Jordan Evans

QUARTER/YEAR: Q1 2021

SAMPLING POINT: AP9

Well Dry

PURGE DATE	START PURGE TIME	ELAPSED HOURS	WATER VOL. IN CASING (gallons)	ACTUAL VOL. PURGED (gallons)
1/21/21				

	YES	NO
Micro Purge		X
Purge Equipment Dedicated		X
Sampling Equipment Dedicated		X

A	Bailer – Teflon	H	Peristaltic Pump
C	Bailer – Polypropylene/Polyethylene	I	Submersible Pump
F	Bailer – Stainless Steel	L	Bladder Pump
Purging Device		Sampling Device	

A	Teflon	D	Polypropylene
B	Tygon	E	Polyethylene
C	Rope X (Specify)		
Purging Tubing		Sampling Tubing	

A	Inline Disposable	B	Pressure
Field Filtering	YES	NO	Filtering Device Used

Depth to Water (ft)		Well Depth (ft)	
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GALLONS	pH (std)	CONDUCTIVITY (um/cm)	TEMP (C)

APPEARANCE		ODOR	
COLOR		TURBIDITY	

Comments: * Well has not been installed

TEKLAB, INC. FIELD INFORMATION FORM

SITE NAME: CWLP

SAMPLE COLLECTOR: Jordan Evans

QUARTER/YEAR: Q1 2021

SAMPLING POINT: AP10

Well Dry

PURGE DATE	START PURGE TIME	ELAPSED HOURS	WATER VOL. IN CASING (gallons)	ACTUAL VOL. PURGED (gallons)
1/21/21				

	YES	NO
Micro Purge		X
Purge Equipment Dedicated		X
Sampling Equipment Dedicated		X

A	Bailer – Teflon	H	Peristaltic Pump
C	Bailer – Polypropylene/Polyethylene	I	Submersible Pump
F	Bailer – Stainless Steel	L	Bladder Pump
Purging Device		Sampling Device	

A	Teflon	D	Polypropylene
B	Tygon	E	Polyethylene
C	Rope X (Specify)		
Purging Tubing		Sampling Tubing	

A	Inline Disposable	B	Pressure
Field Filtering	YES	NO	Filtering Device Used

Depth to Water (ft)		Well Depth (ft)	
----------------------------	--	------------------------	--

GALLONS	pH (std)	CONDUCTIVITY (um/cm)	TEMP (C)

APPEARANCE		ODOR	
COLOR		TURBIDITY	

Comments: * Well has not been installed

February 10, 2021

Ms. Shelly Hennessy
Teklab Inc.
5445 Horseshoe Lake Road
Collinsville, IL 62234

RE: Project: 21010971
Pace Project No.: 30403107

Dear Ms. Hennessy:

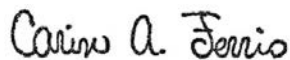
Enclosed are the analytical results for sample(s) received by the laboratory on January 26, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Carin Ferris
carin.ferris@pacelabs.com
724-850-5615
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 21010971
Pace Project No.: 30403107

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 9526

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 21010971

Pace Project No.: 30403107

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30403107001	21010971-001	Water	01/21/21 11:54	01/26/21 10:15
30403107002	21010971-002	Water	01/21/21 12:18	01/26/21 10:15
30403107003	21010971-003	Water	01/21/21 12:30	01/26/21 10:15
30403107004	21010971-004	Water	01/21/21 12:43	01/26/21 10:15
30403107005	21010971-005	Water	01/21/21 13:11	01/26/21 10:15
30403107006	21010971-006	Water	01/21/21 13:55	01/26/21 10:15
30403107007	21010971-007	Water	01/21/21 10:48	01/26/21 10:15
30403107008	21010971-008	Water	01/21/21 11:25	01/26/21 10:15

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 21010971
Pace Project No.: 30403107

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30403107001	21010971-001	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
30403107002	21010971-002	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
30403107003	21010971-003	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
30403107004	21010971-004	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
30403107005	21010971-005	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
30403107006	21010971-006	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
30403107007	21010971-007	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
30403107008	21010971-008	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 21010971
Pace Project No.: 30403107

Method: EPA 903.1
Description: 903.1 Radium 226
Client: Teklab Inc.
Date: February 10, 2021

General Information:

8 samples were analyzed for EPA 903.1 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 21010971

Pace Project No.: 30403107

Method: EPA 904.0

Description: 904.0 Radium 228

Client: Teklab Inc.

Date: February 10, 2021

General Information:

8 samples were analyzed for EPA 904.0 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 21010971
Pace Project No.: 30403107

Method: Total Radium Calculation
Description: Total Radium 228+226
Client: Teklab Inc.
Date: February 10, 2021

General Information:

8 samples were analyzed for Total Radium Calculation by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21010971

Pace Project No.: 30403107

Sample: 21010971-001 **Lab ID: 30403107001** Collected: 01/21/21 11:54 Received: 01/26/21 10:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.184 ± 0.487 (0.812) C:NA T:90%	pCi/L	02/05/21 14:37	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	1.19 ± 0.462 (0.707) C:67% T:93%	pCi/L	02/05/21 11:33	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.37 ± 0.949 (1.52)	pCi/L	02/10/21 10:29	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21010971

Pace Project No.: 30403107

Sample: 21010971-002 **Lab ID: 30403107002** Collected: 01/21/21 12:18 Received: 01/26/21 10:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.165 ± 0.597 (1.02) C:NA T:80%	pCi/L	02/05/21 14:37	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.212 ± 0.405 (0.889) C:64% T:89%	pCi/L	02/05/21 11:33	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.377 ± 1.00 (1.91)	pCi/L	02/10/21 10:29	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21010971

Pace Project No.: 30403107

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: 21010971-003 Lab ID: 30403107003 Collected: 01/21/21 12:30 Received: 01/26/21 10:15 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.661 ± 0.652 (0.932) C:NA T:90%	pCi/L	02/05/21 14:37	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.997 ± 0.441 (0.715) C:69% T:86%	pCi/L	02/05/21 11:33	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.66 ± 1.09 (1.65)	pCi/L	02/10/21 10:29	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21010971

Pace Project No.: 30403107

Sample: 21010971-004 **Lab ID: 30403107004** Collected: 01/21/21 12:43 Received: 01/26/21 10:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.0600 ± 0.570 (0.999) C:NA T:90%	pCi/L	02/05/21 14:37	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.866 ± 0.415 (0.705) C:69% T:89%	pCi/L	02/05/21 11:33	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.926 ± 0.985 (1.70)	pCi/L	02/10/21 10:29	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21010971

Pace Project No.: 30403107

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: 21010971-005 Lab ID: 30403107005 Collected: 01/21/21 13:11 Received: 01/26/21 10:15 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	1.01 ± 0.693 (0.894) C:NA T:91%	pCi/L	02/05/21 14:37	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.954 ± 0.509 (0.931) C:68% T:87%	pCi/L	02/05/21 11:33	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.96 ± 1.20 (1.83)	pCi/L	02/10/21 10:29	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21010971
Pace Project No.: 30403107

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: 21010971-006 Lab ID: 30403107006 Collected: 01/21/21 13:55 Received: 01/26/21 10:15 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	-0.0904 ± 0.588 (1.07) C:NA T:82%	pCi/L	02/05/21 14:37	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.869 ± 0.466 (0.854) C:72% T:90%	pCi/L	02/05/21 11:39	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.869 ± 1.05 (1.92)	pCi/L	02/10/21 10:29	7440-14-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21010971

Pace Project No.: 30403107

Sample: 21010971-007 **Lab ID: 30403107007** Collected: 01/21/21 10:48 Received: 01/26/21 10:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	-0.118 ± 0.526 (0.986) C:NA T:92%	pCi/L	02/05/21 14:59	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.309 ± 0.443 (0.954) C:70% T:83%	pCi/L	02/05/21 14:40	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.309 ± 0.969 (1.94)	pCi/L	02/10/21 10:29	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21010971
Pace Project No.: 30403107

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: 21010971-008 Lab ID: 30403107008 Collected: 01/21/21 11:25 Received: 01/26/21 10:15 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.0921 ± 0.542 (0.949) C:NA T:97%	pCi/L	02/05/21 14:59	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.995 ± 0.469 (0.785) C:72% T:82%	pCi/L	02/05/21 14:40	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.09 ± 1.01 (1.73)	pCi/L	02/10/21 10:29	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 21010971

Pace Project No.: 30403107

QC Batch: 432586

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30403107001, 30403107002, 30403107003, 30403107004, 30403107005, 30403107006, 30403107007, 30403107008

METHOD BLANK: 2089020

Matrix: Water

Associated Lab Samples: 30403107001, 30403107002, 30403107003, 30403107004, 30403107005, 30403107006, 30403107007, 30403107008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.506 ± 0.349 (0.662) C:77% T:79%	pCi/L	02/05/21 11:01	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 21010971

Pace Project No.: 30403107

QC Batch: 432584

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30403107001, 30403107002, 30403107003, 30403107004, 30403107005, 30403107006, 30403107007, 30403107008

METHOD BLANK: 2089018

Matrix: Water

Associated Lab Samples: 30403107001, 30403107002, 30403107003, 30403107004, 30403107005, 30403107006, 30403107007, 30403107008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.258 ± 0.321 (0.727) C:NA T:85%	pCi/L	02/05/21 14:37	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 21010971
Pace Project No.: 30403107

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.

Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

TEKLAB, INC. Chain of Custody

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

Are the samples chilled? YES NO With: Ice Blue Ice Preserved in: Lab Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: Sampler: QC Level:

Project#

Comments:
 Please analyze for Radium (226 and 228) by method EPA903.0/904.0
 on your standard turnaround time. IL site
 Batch QC is required with the report. Receipt summary requested.
 Any changes to analysis/methods must be approved by Teklab, Inc.
 Phone:

Contact: Email:
 Requested Due Date: Billing/PO:

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix
001	21010971-001	1/21/21 1154	HNO3	Aqueous
002	21010971-002	1/21/21 1218	HNO3	Aqueous
003	21010971-003	1/21/21 1230	HNO3	Aqueous
004	21010971-004	1/21/21 1243	HNO3	Aqueous
005	21010971-005	1/21/21 1311	HNO3	Aqueous
006	21010971-006	1/21/21 1355	HNO3	Aqueous
007	21010971-007	1/21/21 1048	HNO3	Aqueous
008	21010971-008	1/21/21 1125	HNO3	Aqueous
			Unpres	Aqueous
			Unpres	Aqueous
			Unpres	Aqueous

Radium 226	Radium 228	Combined 226/228																
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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WO# : 30403107



*Relinquished By	Date/Time	Received By	Date/Time
<i>S Hennessy (Kullex)</i>	<i>1/25/21 1700</i>	<i>[Signature]</i>	<i>1/26/21 1015</i>

Resp. to 18 CFR 1.645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights, Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

Pittsburgh Lab Sample Condition Upon Receipt

30403107



Client Name: Teklab Project # _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 9250 92245701

Label <u>BM</u>
LIMS Login <u>BM</u>

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Thermometer Used _____ Type of Ice: Wet Blue None

Cooler Temperature _____ Observed Temp _____ °C Correction Factor: _____ °C Final Temp: _____ °C

Temp should be above freezing to 6°C

Comments:	pH paper Lot# <u>W01101</u>			Date and Initials of person examining contents: <u>BM 1/26/21</u>
	Yes	No	N/A	
Chain of Custody Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.
Sampler Name & Signature on COC:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4.
Sample Labels match COC: -Includes date/time/ID Matrix: <u>WT</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.
Short Hold Time Analysis (<72hr remaining):	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7.
Rush Turn Around Time Requested:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8.
Sufficient Volume:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.
Correct Containers Used: -Pace Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.
Containers Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11.
Orthophosphate field filtered	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	12.
Hex Cr Aqueous sample field filtered	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	13.
Organic Samples checked for dechlorination:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	14.
Filtered volume received for Dissolved tests	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	15.
All containers have been checked for preservation. exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16. <u>pH < 2</u>
All containers meet method preservation requirements.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed: <u>BM</u> Date/time of preservation: _____
				Lot # of added preservative: _____
Headspace in VOA Vials (>6mm):	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	17.
Trip Blank Present:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	18.
Trip Blank Custody Seals Present	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Rad Samples Screened < 0.5 mrem/hr	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed: <u>BM</u> Date: <u>1/26/21</u>

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

A check in this box indicates that additional information has been stored in ereports.

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

June 28, 2021

Eric Staley
City Water, Light & Power
201 E. Lake Shore Drive
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615



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

RE: Ash Pond Monitoring Wells

WorkOrder: 21050932

Dear Eric Staley:

TEKLAB, INC received 11 samples on 5/27/2021 2:25:00 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,



Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com



Report Contents

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

Client: City Water, Light & Power

Work Order: 21050932

Client Project: Ash Pond Monitoring Wells

Report Date: 28-Jun-21

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	20
Chain of Custody	Appended

Client: City Water, Light & Power

Work Order: 21050932

Client Project: Ash Pond Monitoring Wells

Report Date: 28-Jun-21

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.

LCS D 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: City Water, Light & Power

Work Order: 21050932

Client Project: Ash Pond Monitoring Wells

Report Date: 28-Jun-21

Qualifiers

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



Case Narrative

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

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 21050932
Report Date: 28-Jun-21

Cooler Receipt Temp: 3.4 °C

An employee of Teklab, Inc. collected the sample(s).

Radium-226 and Radium-228 analysis was performed by Pace Analytical Services, LLC. See attached report for results.

Locations

Collinsville

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Collinsville, IL 62234-7425
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Collinsville Air

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Accreditations

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Client: City Water, Light & Power

Work Order: 21050932

Client Project: Ash Pond Monitoring Wells

Report Date: 28-Jun-21

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2022	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2022	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2022	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2022	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2021	Collinsville
Arkansas	ADEQ	88-0966		3/14/2022	Collinsville
Illinois	IDPH	17584		5/31/2021	Collinsville
Kentucky	UST	0073		1/31/2022	Collinsville
Missouri	MDNR	00930		5/31/2021	Collinsville
Missouri	MDNR	930		1/31/2022	Collinsville



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21050932-001
 Matrix: GROUNDWATER

Work Order: 21050932
 Report Date: 28-Jun-21

Client Sample ID: RW-3

Collection Date: 05/26/2021 11:25

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		495.49	ft	1	05/26/2021 11:25	R293158
Depth to water	*	-5.00		5.29	ft	1	05/26/2021 11:25	R293158
Depth to water from measuring point	*	0		7.99	ft	1	05/26/2021 11:25	R293158
Elevation of groundwater surface	*	0		531.51	ft	1	05/26/2021 11:25	R293158
Measuring Point Elevation	*	0		539.50	ft	1	05/26/2021 11:25	R293158
Measuring Point Height Above Land Surface	*	0		2.70	ft	1	05/26/2021 11:25	R293158
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		9.8	NTU	1	05/26/2021 11:25	R293158
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		56.5	°F	1	05/26/2021 11:25	R293158
SW-846 9040B								
pH, Field	*	1.00		7.00		1	05/26/2021 11:25	R293158
<i>The LCS was outside of control limits for pH at 102.7%. The acceptable range is 98.57- 101.4 % recovery.</i>								
SW-846 9050A								
Spec. Conductance, Field	*	1.00		719	µmhos/cm @25C	1	05/26/2021 11:25	R293158
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		390	mg/L	1	06/01/2021 17:03	R291754
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		14	mg/L	1	06/02/2021 1:11	R291767
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.49	mg/L	1	06/01/2021 19:38	R291748
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		26	mg/L	1	06/02/2021 1:12	R291768
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		0.119	mg/L	1	06/02/2021 12:38	177441
Barium	NELAP	0.0025		0.150	mg/L	1	06/02/2021 12:38	177441
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	06/02/2021 12:38	177441
Boron	NELAP	0.0200		0.174	mg/L	1	06/02/2021 12:38	177441
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	06/02/2021 12:38	177441
Calcium	NELAP	0.100		73.4	mg/L	1	06/02/2021 12:38	177441
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	06/02/2021 12:38	177441
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	06/02/2021 12:38	177441
Lead	NELAP	0.0150		< 0.0150	mg/L	1	06/02/2021 12:38	177441
Lithium	NELAP	0.0050		0.0068	mg/L	1	06/02/2021 12:38	177441
Molybdenum	NELAP	0.0100		0.0105	mg/L	1	06/02/2021 12:38	177441
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	06/01/2021 15:05	177442
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	06/01/2021 15:05	177442
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	06/01/2021 15:05	177442
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	06/02/2021 11:34	177478
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	06/25/2021 0:00	R293748
Radium-228	*	0		See attached	pci/L	1	06/25/2021 0:00	R293748



Laboratory Results

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Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21050932-002
 Matrix: GROUNDWATER

Work Order: 21050932
 Report Date: 28-Jun-21

Client Sample ID: AP-1

Collection Date: 05/27/2021 8:48

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		504.29	ft	1	05/27/2021 8:48	R293158
Depth to water	*	-5.00		5.54	ft	1	05/27/2021 8:48	R293158
Depth to water from measuring point	*	0		7.81	ft	1	05/27/2021 8:48	R293158
Elevation of groundwater surface	*	0		527.26	ft	1	05/27/2021 8:48	R293158
Measuring Point Elevation	*	0		535.37	ft	1	05/27/2021 8:48	R293158
Measuring Point Height Above Land Surface	*	0		2.27	ft	1	05/27/2021 8:48	R293158
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		10	NTU	1	05/27/2021 8:48	R293158
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		56.8	°F	1	05/27/2021 8:48	R293158
SW-846 9040B								
pH, Field	*	1.00		6.46		1	05/27/2021 8:48	R293158
<i>The LCS was outside of control limits for pH at 102.7%. The acceptable range is 98.57- 101.4 % recovery.</i>								
SW-846 9050A								
Spec. Conductance, Field	*	1.00		2180	µmhos/cm @25C	1	05/27/2021 8:48	R293158
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		1450	mg/L	1	06/02/2021 14:29	R291754
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		721	mg/L	20	06/02/2021 1:53	R291767
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.22	mg/L	1	06/01/2021 19:40	R291748
SW-846 9251 (TOTAL)								
Chloride	NELAP	2		51	mg/L	2	06/02/2021 1:49	R291768
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	06/02/2021 12:42	177441
Barium	NELAP	0.0025		0.352	mg/L	1	06/02/2021 12:42	177441
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	06/02/2021 12:42	177441
Boron	NELAP	0.200		22.1	mg/L	10	06/02/2021 14:48	177441
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	06/02/2021 12:42	177441
Calcium	NELAP	0.100		242	mg/L	1	06/02/2021 12:42	177441
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	06/02/2021 12:42	177441
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	06/02/2021 12:42	177441
Lead	NELAP	0.0150		< 0.0150	mg/L	1	06/02/2021 12:42	177441
Lithium	NELAP	0.0050		0.0092	mg/L	1	06/02/2021 12:42	177441
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	06/02/2021 12:42	177441
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	06/01/2021 15:12	177442
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	06/01/2021 15:12	177442
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	06/01/2021 15:12	177442
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	06/02/2021 11:41	177478
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	06/25/2021 0:00	R293748
Radium-228	*	0		See attached	pci/L	1	06/25/2021 0:00	R293748



Laboratory Results

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Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21050932-003
 Matrix: GROUNDWATER

Work Order: 21050932
 Report Date: 28-Jun-21

Client Sample ID: AP-2
 Collection Date: 05/27/2021 9:14

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		514.77	ft	1	05/27/2021 9:14	R293158
Depth to water	*	-5.00		4.28	ft	1	05/27/2021 9:14	R293158
Depth to water from measuring point	*	0		6.78	ft	1	05/27/2021 9:14	R293158
Elevation of groundwater surface	*	0		529.32	ft	1	05/27/2021 9:14	R293158
Measuring Point Elevation	*	0		536.10	ft	1	05/27/2021 9:14	R293158
Measuring Point Height Above Land Surface	*	0		2.50	ft	1	05/27/2021 9:14	R293158
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		5.6	NTU	1	05/27/2021 9:14	R293158
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		54.3	°F	1	05/27/2021 9:14	R293158
SW-846 9040B								
pH, Field	*	1.00		6.43		1	05/27/2021 9:14	R293158
<i>The LCS was outside of control limits for pH at 102.7%. The acceptable range is 98.57- 101.4 % recovery.</i>								
SW-846 9050A								
Spec. Conductance, Field	*	1.00		2060	µmhos/cm @25C	1	05/27/2021 9:14	R293158
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		1390	mg/L	1	06/02/2021 14:30	R291754
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		660	mg/L	20	06/02/2021 2:02	R291767
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.25	mg/L	1	06/01/2021 19:42	R291748
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		34	mg/L	1	06/02/2021 1:57	R291768
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	06/02/2021 14:12	177441
Barium	NELAP	0.0025		0.0927	mg/L	1	06/02/2021 14:12	177441
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	06/02/2021 14:12	177441
Boron	NELAP	0.0200		4.42	mg/L	1	06/02/2021 14:12	177441
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	06/02/2021 14:12	177441
Calcium	NELAP	0.100		289	mg/L	1	06/02/2021 14:12	177441
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	06/02/2021 14:12	177441
Cobalt	NELAP	0.0050		0.0135	mg/L	1	06/02/2021 14:12	177441
Lead	NELAP	0.0150		< 0.0150	mg/L	1	06/02/2021 14:12	177441
Lithium	NELAP	0.0050		0.0057	mg/L	1	06/02/2021 14:12	177441
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	06/02/2021 14:12	177441
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	06/01/2021 15:20	177442
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	06/01/2021 15:20	177442
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	06/01/2021 15:20	177442
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	06/02/2021 11:44	177478
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	06/25/2021 0:00	R293748
Radium-228	*	0		See attached	pci/L	1	06/25/2021 0:00	R293748



Laboratory Results

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Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21050932-004
 Matrix: GROUNDWATER

Work Order: 21050932
 Report Date: 28-Jun-21

Client Sample ID: AP-6

Collection Date: 05/26/2021 15:48

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		498.20	ft	1	05/26/2021 15:48	R293158
Depth to water	*	-5.00		4.02	ft	1	05/26/2021 15:48	R293158
Depth to water from measuring point	*	0		6.44	ft	1	05/26/2021 15:48	R293158
Elevation of groundwater surface	*	0		531.38	ft	1	05/26/2021 15:48	R293158
Measuring Point Elevation	*	0		537.82	ft	1	05/26/2021 15:48	R293158
Measuring Point Height Above Land Surface	*	0		2.42	ft	1	05/26/2021 15:48	R293158
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		8.8	NTU	1	05/26/2021 15:48	R293158
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		65.5	°F	1	05/26/2021 15:48	R293158
SW-846 9040B								
pH, Field	*	1.00		7.07		1	05/26/2021 15:48	R293158
<i>The LCS was outside of control limits for pH at 102.7%. The acceptable range is 98.57- 101.4 % recovery.</i>								
SW-846 9050A								
Spec. Conductance, Field	*	1.00		799	µmhos/cm @25C	1	05/26/2021 15:48	R293158
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		402	mg/L	1	06/01/2021 17:04	R291754
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		< 10	mg/L	1	06/02/2021 2:05	R291767
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.52	mg/L	1	06/01/2021 19:44	R291748
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		34	mg/L	1	06/02/2021 2:05	R291768
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	06/02/2021 15:33	177441
Barium	NELAP	0.0025		0.128	mg/L	1	06/02/2021 15:33	177441
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	06/02/2021 15:33	177441
Boron	NELAP	0.0200		0.262	mg/L	1	06/02/2021 15:33	177441
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	06/02/2021 15:33	177441
Calcium	NELAP	0.100		69.4	mg/L	1	06/02/2021 15:33	177441
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	06/02/2021 15:33	177441
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	06/02/2021 15:33	177441
Lead	NELAP	0.0150		< 0.0150	mg/L	1	06/02/2021 15:33	177441
Lithium	NELAP	0.0050		0.0077	mg/L	1	06/02/2021 15:33	177441
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	06/02/2021 15:33	177441
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	06/01/2021 15:27	177442
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	06/01/2021 15:27	177442
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	06/01/2021 15:27	177442
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	06/02/2021 11:46	177478
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	06/25/2021 0:00	R293748
Radium-228	*	0		See attached	pci/L	1	06/25/2021 0:00	R293748



Laboratory Results

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Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21050932-005
 Matrix: GROUNDWATER

Work Order: 21050932
 Report Date: 28-Jun-21

Client Sample ID: AP-4

Collection Date: 05/27/2021 11:24

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		496.65	ft	1	05/27/2021 11:24	R293158
Depth to water	*	-5.00		6.61	ft	1	05/27/2021 11:24	R293158
Depth to water from measuring point	*	0		9.77	ft	1	05/27/2021 11:24	R293158
Elevation of groundwater surface	*	0		547.29	ft	1	05/27/2021 11:24	R293158
Measuring Point Elevation	*	0		557.06	ft	1	05/27/2021 11:24	R293158
Measuring Point Height Above Land Surface	*	0		3.16	ft	1	05/27/2021 11:24	R293158
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		120	NTU	1	05/27/2021 11:24	R293158
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		60.3	°F	1	05/27/2021 11:24	R293158
SW-846 9040B								
pH, Field	*	1.00		6.74		1	05/27/2021 11:24	R293158
<i>The LCS was outside of control limits for pH at 102.7%. The acceptable range is 98.57- 101.4 % recovery.</i>								
SW-846 9050A								
Spec. Conductance, Field	*	1.00		1050	µmhos/cm @25C	1	05/27/2021 11:24	R293158
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		486	mg/L	1	06/02/2021 14:30	R291754
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		< 10	mg/L	1	06/02/2021 2:07	R291767
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.16	mg/L	1	06/01/2021 19:46	R291748
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		13	mg/L	1	06/02/2021 2:08	R291768
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	06/02/2021 15:36	177441
Barium	NELAP	0.0025		0.454	mg/L	1	06/02/2021 15:36	177441
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	06/02/2021 15:36	177441
Boron	NELAP	0.0200		0.0928	mg/L	1	06/02/2021 15:36	177441
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	06/02/2021 15:36	177441
Calcium	NELAP	0.100		128	mg/L	1	06/02/2021 15:36	177441
Chromium	NELAP	0.0050		0.0062	mg/L	1	06/02/2021 15:36	177441
Cobalt	NELAP	0.0050		0.0052	mg/L	1	06/02/2021 15:36	177441
Lead	NELAP	0.0150		< 0.0150	mg/L	1	06/02/2021 15:36	177441
Lithium	NELAP	0.0050		0.0108	mg/L	1	06/02/2021 15:36	177441
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	06/02/2021 15:36	177441
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	06/01/2021 16:28	177442
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	06/01/2021 16:28	177442
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	06/01/2021 16:28	177442
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	06/02/2021 11:48	177478
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	06/25/2021 0:00	R293748
Radium-228	*	0		See attached	pci/L	1	06/25/2021 0:00	R293748



Laboratory Results

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Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21050932-006
 Matrix: GROUNDWATER

Work Order: 21050932
 Report Date: 28-Jun-21

Client Sample ID: AP-5
 Collection Date: 05/27/2021 11:48

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		552.63	ft	1	05/27/2021 11:48	R293158
Depth to water	*	-5.00		7.82	ft	1	05/27/2021 11:48	R293158
Depth to water from measuring point	*	0		10.12	ft	1	05/27/2021 11:48	R293158
Elevation of groundwater surface	*	0		573.78	ft	1	05/27/2021 11:48	R293158
Measuring Point Elevation	*	0		583.90	ft	1	05/27/2021 11:48	R293158
Measuring Point Height Above Land Surface	*	0		2.30	ft	1	05/27/2021 11:48	R293158
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		1.8	NTU	1	05/27/2021 11:48	R293158
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		56.3	°F	1	05/27/2021 11:48	R293158
SW-846 9040B								
pH, Field	*	1.00		7.05		1	05/27/2021 11:48	R293158
<i>The LCS was outside of control limits for pH at 102.7%. The acceptable range is 98.57- 101.4 % recovery.</i>								
SW-846 9050A								
Spec. Conductance, Field	*	1.00		801	µmhos/cm @25C	1	05/27/2021 11:48	R293158
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		358	mg/L	1	06/02/2021 14:31	R291754
SW-846 9036 (TOTAL)								
Sulfate	NELAP	20		53	mg/L	2	06/03/2021 17:50	R291837
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.35	mg/L	1	06/01/2021 19:49	R291748
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		3	mg/L	1	06/02/2021 2:29	R291768
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	06/02/2021 15:46	177441
Barium	NELAP	0.0025		0.0552	mg/L	1	06/02/2021 15:46	177441
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	06/02/2021 15:46	177441
Boron	NELAP	0.0200		< 0.0200	mg/L	1	06/02/2021 15:46	177441
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	06/02/2021 15:46	177441
Calcium	NELAP	0.100		89.1	mg/L	1	06/02/2021 15:46	177441
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	06/02/2021 15:46	177441
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	06/02/2021 15:46	177441
Lead	NELAP	0.0150		< 0.0150	mg/L	1	06/02/2021 15:46	177441
Lithium	NELAP	0.0050		0.0060	mg/L	1	06/02/2021 15:46	177441
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	06/02/2021 15:46	177441
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	06/01/2021 16:36	177442
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	06/01/2021 16:36	177442
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	06/01/2021 16:36	177442
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	06/02/2021 11:50	177478
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	06/25/2021 0:00	R293748
Radium-228	*	0		See attached	pci/L	1	06/25/2021 0:00	R293748



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21050932-007
 Matrix: GROUNDWATER

Work Order: 21050932
 Report Date: 28-Jun-21

Client Sample ID: AP-3
 Collection Date: 05/27/2021 9:32

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		514.45	ft	1	05/27/2021 9:32	R293158
Depth to water	*	-5.00		6.78	ft	1	05/27/2021 9:32	R293158
Depth to water from measuring point	*	0		8.48	ft	1	05/27/2021 9:32	R293158
Elevation of groundwater surface	*	0		526.92	ft	1	05/27/2021 9:32	R293158
Measuring Point Elevation	*	0		535.40	ft	1	05/27/2021 9:32	R293158
Measuring Point Height Above Land Surface	*	0		1.70	ft	1	05/27/2021 9:32	R293158
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		< 1.0	NTU	1	05/27/2021 9:32	R293158
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		54.9	°F	1	05/27/2021 9:32	R293158
SW-846 9040B								
pH, Field	*	1.00		6.62		1	05/27/2021 9:32	R293158
<i>The LCS was outside of control limits for pH at 102.7%. The acceptable range is 98.57- 101.4 % recovery.</i>								
SW-846 9050A								
Spec. Conductance, Field	*	1.00		1270	µmhos/cm @25C	1	05/27/2021 9:32	R293158
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		784	mg/L	1	06/02/2021 14:31	R291754
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		347	mg/L	10	06/02/2021 2:37	R291767
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.23	mg/L	1	06/01/2021 19:56	R291748
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		33	mg/L	1	06/02/2021 2:32	R291768
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	06/02/2021 15:50	177441
Barium	NELAP	0.0025		0.0849	mg/L	1	06/02/2021 15:50	177441
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	06/02/2021 15:50	177441
Boron	NELAP	0.0200		17.1	mg/L	1	06/02/2021 15:50	177441
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	06/02/2021 15:50	177441
Calcium	NELAP	0.100		148	mg/L	1	06/02/2021 15:50	177441
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	06/02/2021 15:50	177441
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	06/02/2021 15:50	177441
Lead	NELAP	0.0150		< 0.0150	mg/L	1	06/02/2021 15:50	177441
Lithium	NELAP	0.0050		< 0.0050	mg/L	1	06/02/2021 15:50	177441
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	06/02/2021 15:50	177441
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	06/01/2021 16:44	177442
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	06/01/2021 16:44	177442
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	06/01/2021 16:44	177442
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	06/02/2021 11:53	177478
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	06/25/2021 0:00	R293748
Radium-228	*	0		See attached	pci/L	1	06/25/2021 0:00	R293748



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21050932-008
 Matrix: GROUNDWATER

Work Order: 21050932
 Report Date: 28-Jun-21

Client Sample ID: AP-7

Collection Date: 05/26/2021 12:35

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		496.50	ft	1	05/26/2021 12:35	R293158
Depth to water	*	-5.00		7.74	ft	1	05/26/2021 12:35	R293158
Depth to water from measuring point	*	0		10.40	ft	1	05/26/2021 12:35	R293158
Elevation of groundwater surface	*	0		528.62	ft	1	05/26/2021 12:35	R293158
Measuring Point Elevation	*	0		539.02	ft	1	05/26/2021 12:35	R293158
Measuring Point Height Above Land Surface	*	0		2.66	ft	1	05/26/2021 12:35	R293158
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		9.5	NTU	1	05/26/2021 12:35	R293158
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		56.8	°F	1	05/26/2021 12:35	R293158
SW-846 9040B								
pH, Field	*	1.00		7.03		1	05/26/2021 12:35	R293158
<i>The LCS was outside of control limits for pH at 102.7%. The acceptable range is 98.57- 101.4 % recovery.</i>								
SW-846 9050A								
Spec. Conductance, Field	*	1.00		925	µmhos/cm @25C	1	05/26/2021 12:35	R293158
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		454	mg/L	1	06/01/2021 17:05	R291754
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		< 10	mg/L	1	06/03/2021 17:53	R291837
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.59	mg/L	1	06/01/2021 19:58	R291748
SW-846 9251 (TOTAL)								
Chloride	NELAP	5		67	mg/L	5	06/02/2021 2:40	R291768
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	06/02/2021 15:54	177441
Barium	NELAP	0.0025		0.133	mg/L	1	06/02/2021 15:54	177441
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	06/02/2021 15:54	177441
Boron	NELAP	0.0200		0.387	mg/L	1	06/04/2021 11:50	177441
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	06/02/2021 15:54	177441
Calcium	NELAP	0.100		63.9	mg/L	1	06/02/2021 15:54	177441
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	06/02/2021 15:54	177441
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	06/02/2021 15:54	177441
Lead	NELAP	0.0150		< 0.0150	mg/L	1	06/02/2021 15:54	177441
Lithium	NELAP	0.0050		0.0098	mg/L	1	06/02/2021 15:54	177441
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	06/02/2021 15:54	177441
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	06/09/2021 20:10	177442
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	06/09/2021 20:10	177442
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	06/09/2021 20:10	177442
<i>CCV recovered outside the upper control limits. Sample results are below the reporting limit for Antimony. Data is reportable per the TNI standard.</i>								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	06/02/2021 11:59	177478
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	06/25/2021 0:00	R293748



Laboratory Results

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

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells
Lab ID: 21050932-008
Matrix: GROUNDWATER

Work Order: 21050932
Report Date: 28-Jun-21
Client Sample ID: AP-7
Collection Date: 05/26/2021 12:35

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228	*	0		See attached	pci/L	1	06/25/2021 0:00	R293748



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21050932-009
 Matrix: GROUNDWATER

Work Order: 21050932
 Report Date: 28-Jun-21

Client Sample ID: AP-8

Collection Date: 05/26/2021 14:34

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		495.08	ft	1	05/26/2021 14:34	R293158
Depth to water	*	-5.00		1.01	ft	1	05/26/2021 14:34	R293158
Depth to water from measuring point	*	0		3.91	ft	1	05/26/2021 14:34	R293158
Elevation of groundwater surface	*	0		533.29	ft	1	05/26/2021 14:34	R293158
Measuring Point Elevation	*	0		537.20	ft	1	05/26/2021 14:34	R293158
Measuring Point Height Above Land Surface	*	0		2.90	ft	1	05/26/2021 14:34	R293158
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		6.0	NTU	1	05/26/2021 14:34	R293158
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		56.5	°F	1	05/26/2021 14:34	R293158
SW-846 9040B								
pH, Field	*	1.00		6.90		1	05/26/2021 14:34	R293158
<i>The LCS was outside of control limits for pH at 102.7%. The acceptable range is 98.57- 101.4 % recovery.</i>								
SW-846 9050A								
Spec. Conductance, Field	*	1.00		1060	µmhos/cm @25C	1	05/26/2021 14:34	R293158
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		512	mg/L	1	06/01/2021 17:05	R291754
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10	S	< 10	mg/L	1	06/02/2021 2:45	R291767
<i>Matrix spike did not recover within control limits due to matrix interference.</i>								
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.33	mg/L	1	06/01/2021 20:00	R291748
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		24	mg/L	1	06/02/2021 2:45	R291768
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	06/02/2021 16:16	177441
Barium	NELAP	0.0025		0.363	mg/L	1	06/02/2021 16:16	177441
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	06/02/2021 16:16	177441
Boron	NELAP	0.0200		0.0942	mg/L	1	06/02/2021 16:16	177441
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	06/02/2021 16:16	177441
Calcium	NELAP	0.100		102	mg/L	1	06/02/2021 16:16	177441
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	06/02/2021 16:16	177441
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	06/02/2021 16:16	177441
Lead	NELAP	0.0150		< 0.0150	mg/L	1	06/02/2021 16:16	177441
Lithium	NELAP	0.0050		0.0077	mg/L	1	06/02/2021 16:16	177441
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	06/02/2021 16:16	177441
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	06/01/2021 16:59	177442
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	06/01/2021 16:59	177442
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	06/01/2021 16:59	177442
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	06/02/2021 12:02	177478
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	06/25/2021 0:00	R293748



Laboratory Results

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

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells
Lab ID: 21050932-009
Matrix: GROUNDWATER

Work Order: 21050932
Report Date: 28-Jun-21
Client Sample ID: AP-8
Collection Date: 05/26/2021 14:34

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228	*	0		See attached	pci/L	1	06/25/2021 0:00	R293748



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21050932-010
 Matrix: GROUNDWATER

Work Order: 21050932
 Report Date: 28-Jun-21
 Client Sample ID: AP-10
 Collection Date: 05/26/2021 15:13

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		498.89	ft	1	05/26/2021 15:13	R293158
Depth to water	*	-5.00		-0.46	ft	1	05/26/2021 15:13	R293158
Depth to water from measuring point	*	0		2.64	ft	1	05/26/2021 15:13	R293158
Elevation of groundwater surface	*	0		534.86	ft	1	05/26/2021 15:13	R293158
Measuring Point Elevation	*	0		537.50	ft	1	05/26/2021 15:13	R293158
Measuring Point Height Above Land Surface	*	0		3.10	ft	1	05/26/2021 15:13	R293158
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		180	NTU	1	05/26/2021 15:13	R293158
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		56.5	°F	1	05/26/2021 15:13	R293158
SW-846 9040B								
pH, Field	*	1.00		6.53		1	05/26/2021 15:13	R293158
<i>The LCS was outside of control limits for pH at 102.7%. The acceptable range is 98.57- 101.4 % recovery.</i>								
SW-846 9050A								
Spec. Conductance, Field	*	1.00		1360	µmhos/cm @25C	1	05/26/2021 15:13	R293158
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		724	mg/L	1	06/01/2021 17:05	R291754
SW-846 9036 (TOTAL)								
Sulfate	NELAP	50		99	mg/L	5	06/02/2021 3:22	R291767
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.36	mg/L	1	06/01/2021 20:02	R291748
SW-846 9251 (TOTAL)								
Chloride	NELAP	5		27	mg/L	5	06/02/2021 3:22	R291768
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	06/02/2021 16:30	177441
Barium	NELAP	0.0025		0.594	mg/L	1	06/02/2021 16:30	177441
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	06/02/2021 16:30	177441
Boron	NELAP	0.0200		3.65	mg/L	1	06/02/2021 16:30	177441
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	06/02/2021 16:30	177441
Calcium	NELAP	0.100		152	mg/L	1	06/02/2021 16:30	177441
Chromium	NELAP	0.0050		0.0067	mg/L	1	06/02/2021 16:30	177441
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	06/02/2021 16:30	177441
Lead	NELAP	0.0150		< 0.0150	mg/L	1	06/02/2021 16:30	177441
Lithium	NELAP	0.0050		0.0145	mg/L	1	06/02/2021 16:30	177441
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	06/02/2021 16:30	177441
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	06/01/2021 17:22	177442
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	06/01/2021 17:22	177442
Thallium	NELAP	0.0020		0.0027	mg/L	5	06/01/2021 17:22	177442
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	06/02/2021 12:04	177478
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	06/25/2021 0:00	R293748
Radium-228	*	0		See attached	pci/L	1	06/25/2021 0:00	R293748



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21050932-011
 Matrix: GROUNDWATER

Work Order: 21050932
 Report Date: 28-Jun-21
 Client Sample ID: AP-14
 Collection Date: 05/27/2021 10:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		508.40	ft	1	05/27/2021 10:30	R293158
Depth to water	*	-5.00		-1.02	ft	1	05/27/2021 10:30	R293158
Depth to water from measuring point	*	0		1.78	ft	1	05/27/2021 10:30	R293158
Elevation of groundwater surface	*	0		537.82	ft	1	05/27/2021 10:30	R293158
Measuring Point Elevation	*	0		539.60	ft	1	05/27/2021 10:30	R293158
Measuring Point Height Above Land Surface	*	0		2.80	ft	1	05/27/2021 10:30	R293158
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		< 1.0	NTU	1	05/27/2021 10:30	R293158
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		55.6	°F	1	05/27/2021 10:30	R293158
SW-846 9040B								
pH, Field	*	1.00		7.21		1	05/27/2021 10:30	R293158
<i>The LCS was outside of control limits for pH at 102.7%. The acceptable range is 98.57- 101.4 % recovery.</i>								
SW-846 9050A								
Spec. Conductance, Field	*	1.00		1800	µmhos/cm @25C	1	05/27/2021 10:30	R293158
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		1250	mg/L	1	06/02/2021 14:32	R291754
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		642	mg/L	20	06/02/2021 3:30	R291767
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.31	mg/L	1	06/01/2021 20:03	R291748
SW-846 9251 (TOTAL)								
Chloride	NELAP	2		45	mg/L	2	06/02/2021 3:25	R291768
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	06/02/2021 16:33	177441
Barium	NELAP	0.0025		0.165	mg/L	1	06/02/2021 16:33	177441
Beryllium	NELAP	0.0005		0.0011	mg/L	1	06/02/2021 16:33	177441
Boron	NELAP	0.100		23.2	mg/L	5	06/03/2021 16:43	177441
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	06/02/2021 16:33	177441
Calcium	NELAP	0.100		254	mg/L	1	06/02/2021 16:33	177441
Chromium	NELAP	0.0050		0.0290	mg/L	1	06/02/2021 16:33	177441
Cobalt	NELAP	0.0050		0.0143	mg/L	1	06/02/2021 16:33	177441
Lead	NELAP	0.0150		0.0169	mg/L	1	06/02/2021 16:33	177441
Lithium	NELAP	0.0050		0.0253	mg/L	1	06/02/2021 16:33	177441
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	06/02/2021 16:33	177441
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	06/01/2021 18:07	177442
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	06/01/2021 18:07	177442
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	06/01/2021 18:07	177442
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	06/02/2021 12:06	177478
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	06/25/2021 0:00	R293748
Radium-228	*	0		See attached	pci/L	1	06/25/2021 0:00	R293748



Receiving Check List

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

Client: City Water, Light & Power

Work Order: 21050932

Client Project: Ash Pond Monitoring Wells

Report Date: 28-Jun-21

Carrier: Joe Riley

Received By: MEK

Completed by:

Mary E. Kemp

Reviewed by:

Shelly A. Hennessy

On:

27-May-21

Mary E. Kemp

On:

27-May-21

Shelly A. Hennessy

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 3.4 |
| Type of thermal preservation? | None <input type="checkbox"/> | Ice <input checked="" 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 type="checkbox"/> | No <input checked="" 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 checked="" type="checkbox"/> | Lab <input type="checkbox"/> | NA <input 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.

pH strip #75145 - MKemp - 5/27/2021 3:12:58 PM

Per Joe Riley, samples labeled AP-3 are samples AP-6 and samples labeled AP-6 are samples AP-3. MEK 5/27/21

CHAIN OF CUSTODY

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

Client: City Water, Light & Power
 Address: 201 E. Lake Shore Drive
 City/State/Zip: Springfield IL 62712
 Contact: Eric Staley Phone: (217) 757-8610
 Email: eric.staley@cwlp.com Fax: _____

Samples on: ICE BLUE ICE NO ICE 3.4 °C
 Preserved in: LAB FIELD FOR LAB USE ONLY LTGS
 LAB NOTES: 75145 MEL 5/27/21
Per Joe Riley bottles labeled AP-3 are AP-6 and AP-8 is

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 Permit on file

Client Comments: labeled AP-3
 *elevations, pH, conductivity, temperature
 **Sb Se TI (ICPMS) As Ba Be B Cd Ca Cr Co Pb Li Hg Mo
 Quarterly monitoring

PROJECT NAME/NUMBER
Ash Pond Monitoring Wells

SAMPLE COLLECTOR'S NAME
J. RILEY

RESULTS REQUESTED
 Standard 1-2 Day (100% Surcharge)
 Other _____ 3 Day (50% Surcharge)

BILLING INSTRUCTIONS

# and Type of Containers		INDICATE ANALYSIS REQUESTED												
UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	of F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity

Lab Use Only	Sample ID	Date/Time Sampled	Matrix
21050932-001	RW-3	5/26/21 1125	Groundwater
002	AP-1	5/27/21 0848	Groundwater
003	AP-2	5/27/21 0914	Groundwater
004	AP-3 AP-6	5/27/21 1548	Groundwater
005	AP-4	5/27/21 1124	Groundwater
006	AP-5	5/27/21 1148	Groundwater
007	AP-6 AP-3	5/27/21 0932	Groundwater
008	AP-7	5/26/21 1255	Groundwater
009	AP-8	5/26/21 1434	Groundwater
010	AP-10	5/26/21 1513	Groundwater
011	AP-14	5/27/21 1030	Groundwater

1	3								✓	✓	✓	✓	✓	✓
1	3								✓	✓	✓	✓	✓	✓
1	3								✓	✓	✓	✓	✓	✓
1	3								✓	✓	✓	✓	✓	✓
1	3								✓	✓	✓	✓	✓	✓
1	3								✓	✓	✓	✓	✓	✓
1	3								✓	✓	✓	✓	✓	✓
1	3								✓	✓	✓	✓	✓	✓
1	3								✓	✓	✓	✓	✓	✓

Relinquished By	Date/Time	Received By	Date/Time
<u>[Signature]</u>	<u>5/27/21 1425</u>	<u>Mary Kemp</u>	<u>5/27/21 1425</u>

21050932

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: CWLP Client: _____
 Project Number: _____ Task #: _____ Start Date: 5/26/21 Time: 1059
 Field Personnel: J. RILEY P. SHULTZ Finish Date: 5/26/21 Time: 1135

WELL INFORMATION

Well ID: RW3
 Casing ID: _____ inches

EVENT TYPE

Well Development Low-Flow / Low Stress Sampling
 Well Volume Approach Sampling Other (Specify): _____

WATER QUALITY INDICATOR PARAMETERS (continued)

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
	<u>1058</u>		<u>7.94</u>								
	<u>1101</u>	<u>.12</u>	<u>8.66</u>	<u>1.67</u>	<u>14.0</u>	<u>6.85</u>	<u>703</u>	<u>2.48</u>	<u>14.55</u>	<u>-117.3</u>	<u>CLEAR</u>
	<u>1124</u>	<u>.26</u>	<u>8.66</u>	<u>-</u>	<u>19.1</u>	<u>7.00</u>	<u>759</u>	<u>1.77</u>	<u>44.22</u>	<u>-110.2</u>	<u>CLEAR</u>
	<u>1107</u>	<u>.39</u>	<u>8.66</u>	<u>-</u>	<u>16.0</u>	<u>7.00</u>	<u>715</u>	<u>1.69</u>	<u>41.78</u>	<u>-110.8</u>	<u>CLEAR</u>
	<u>1110</u>	<u>.52</u>	<u>8.66</u>	<u>-</u>	<u>16.5</u>	<u>7.07</u>	<u>782</u>	<u>1.86</u>	<u>36.69</u>	<u>-110.0</u>	<u>CLEAR</u>
	<u>1113</u>	<u>.68</u>	<u>8.66</u>	<u>-</u>	<u>16.1</u>	<u>7.08</u>	<u>785</u>	<u>1.87</u>	<u>30.51</u>	<u>-117.1</u>	<u>CLEAR</u>
	<u>1116</u>	<u>.76</u>	<u>8.66</u>	<u>-</u>	<u>14.6</u>	<u>7.08</u>	<u>800</u>	<u>1.62</u>	<u>27.39</u>	<u>-133.8</u>	<u>CLEAR</u>
	<u>1119</u>	<u>.91</u>	<u>8.66</u>	<u>-</u>	<u>16.0</u>	<u>7.00</u>	<u>780</u>	<u>1.48</u>	<u>23.71</u>	<u>-128.5</u>	<u>CLEAR</u>
	<u>1122</u>	<u>1.04</u>	<u>8.66</u>	<u>-</u>	<u>13.8</u>	<u>6.99</u>	<u>783</u>	<u>1.59</u>	<u>14.92</u>	<u>-121.2</u>	<u>CLEAR</u>
	<u>1125</u>	<u>1.17</u>	<u>8.66</u>	<u>-</u>	<u>13.6</u>	<u>7.00</u>	<u>779</u>	<u>1.07</u>	<u>9.81</u>	<u>-117.7</u>	<u>CLEAR</u>
	<u>1128</u>	<u>1.30</u>	<u>8.66</u>	<u>-</u>							

NOTES (continued)

ABBREVIATIONS

Cond. - Actual Conductivity
 FT BTOP - Feet Below Top of Casing
 na - Not Applicable
 nm - Not Measured
 ORP - Oxidation-Reduction Potential
 SEC - Specific Electrical Conductance
 SU - Standard Units
 Temp - Temperature
 °C - Degrees Celsius

21050932

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION			
Site: <u>CWLP</u>	Client: _____		
Project Number: _____	Task #: _____	Start Date: <u>5/27/21</u>	Time: <u>0821</u>
Field Personnel: <u>S. PILEY D. SHULTZ</u>		Finish Date: <u>5/27/21</u>	Time: <u>1848</u>

WELL INFORMATION	EVENT TYPE
Well ID: <u>AP 1</u>	<input type="checkbox"/> Well Development
Casing ID: _____ inches	<input checked="" type="checkbox"/> Low-Flow / Low Stress Sampling
	<input type="checkbox"/> Well Volume Approach Sampling
	<input type="checkbox"/> Other (Specify): _____

WATER QUALITY INDICATOR PARAMETERS (continued)											
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (us/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
	<u>0821</u>		<u>7.87</u>								
	<u>0824</u>	<u>.13</u>	<u>8.11</u>	<u>0-30</u>	<u>13.7</u>	<u>6.01</u>	<u>1899</u>	<u>2.30</u>	<u>190.59</u>	<u>14.9</u>	<u>CLOUDY</u>
	<u>0827</u>	<u>.26</u>	<u>8.11</u>	<u>-</u>	<u>13.5</u>	<u>6.02</u>	<u>2028</u>	<u>0.54</u>	<u>85.20</u>	<u>-83.5</u>	<u>CLOUDY</u>
	<u>0830</u>	<u>.39</u>	<u>8.11</u>	<u>-</u>	<u>13.7</u>	<u>6.18</u>	<u>2138</u>	<u>0.37</u>	<u>48.04</u>	<u>-110.6</u>	<u>CLEAR</u>
	<u>0833</u>	<u>.52</u>	<u>8.11</u>	<u>-</u>	<u>13.7</u>	<u>6.28</u>	<u>2169</u>	<u>0.31</u>	<u>43.61</u>	<u>-120.9</u>	<u>CLEAR</u>
	<u>0836</u>	<u>.65</u>	<u>8.11</u>	<u>-</u>	<u>13.7</u>	<u>6.34</u>	<u>2174</u>	<u>0.27</u>	<u>30.61</u>	<u>-127.7</u>	<u>CLEAR</u>
	<u>0839</u>	<u>.78</u>	<u>8.11</u>	<u>-</u>	<u>13.7</u>	<u>6.38</u>	<u>2176</u>	<u>0.25</u>	<u>26.57</u>	<u>-132.6</u>	<u>CLEAR</u>
	<u>0842</u>	<u>.91</u>	<u>8.11</u>	<u>-</u>	<u>13.7</u>	<u>6.42</u>	<u>2176</u>	<u>0.23</u>	<u>22.82</u>	<u>-135.3</u>	<u>CLEAR</u>
	<u>0845</u>	<u>1.04</u>	<u>8.11</u>	<u>-</u>	<u>13.8</u>	<u>6.44</u>	<u>2175</u>	<u>0.22</u>	<u>11.91</u>	<u>-138.1</u>	<u>CLEAR</u>
	<u>0848</u>	<u>1.17</u>	<u>8.11</u>	<u>-</u>	<u>13.8</u>	<u>6.46</u>	<u>2175</u>	<u>0.21</u>	<u>9.95</u>	<u>-138.4</u>	<u>CLEAR</u>

NOTES (continued)	ABBREVIATIONS										
	<table style="width:100%; border: none;"> <tr> <td style="border: none;">Cond. - Actual Conductivity</td> <td style="border: none;">ORP - Oxidation-Reduction Potential</td> </tr> <tr> <td style="border: none;">FT BTOC - Feet Below Top of Casing</td> <td style="border: none;">SEC - Specific Electrical Conductance</td> </tr> <tr> <td style="border: none;">na - Not Applicable</td> <td style="border: none;">SU - Standard Units</td> </tr> <tr> <td style="border: none;">nm - Not Measured</td> <td style="border: none;">Temp - Temperature</td> </tr> <tr> <td style="border: none;"></td> <td style="border: none;">°C - Degrees Celsius</td> </tr> </table>	Cond. - Actual Conductivity	ORP - Oxidation-Reduction Potential	FT BTOC - Feet Below Top of Casing	SEC - Specific Electrical Conductance	na - Not Applicable	SU - Standard Units	nm - Not Measured	Temp - Temperature		°C - Degrees Celsius
Cond. - Actual Conductivity	ORP - Oxidation-Reduction Potential										
FT BTOC - Feet Below Top of Casing	SEC - Specific Electrical Conductance										
na - Not Applicable	SU - Standard Units										
nm - Not Measured	Temp - Temperature										
	°C - Degrees Celsius										

21050932

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: CWLP Client: _____
 Project Number: _____ Task #: _____ Start Date: 3/27/21 Time: 0856
 Field Personnel: J RILEY P. SHWITZ Finish Date: 5/27/21 Time: 0919

WELL INFORMATION

Well ID: A12
 Casing ID: _____ inches

EVENT TYPE

Well Development Low-Flow / Low Stress Sampling
 Well Volume Approach Sampling Other (Specify): _____

WATER QUALITY INDICATOR PARAMETERS (continued)

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
	<u>0856</u>		<u>6.78</u>	<u>6.78</u>							
	<u>0905</u>	<u>13.39</u>	<u>7.13</u>	<u>6.35</u>	<u>13</u>	<u>6.52</u>	<u>2018</u>	<u>1.13</u>	<u>11.26</u>	<u>-15.1</u>	<u>CLEAR</u>
	<u>0908</u>	<u>26.52</u>	<u>7.13</u>	<u>-</u>	<u>12.8</u>	<u>6.95</u>	<u>2037</u>	<u>0.90</u>	<u>14.68</u>	<u>-9.7</u>	<u>CLEAR</u>
	<u>0911</u>	<u>39.65</u>	<u>7.13</u>	<u>-</u>	<u>12.4</u>	<u>6.44</u>	<u>2043</u>	<u>0.31</u>	<u>9.23</u>	<u>-10.9</u>	<u>CLEAR</u>
	<u>0914</u>	<u>78</u>	<u>7.13</u>	<u>-</u>	<u>12.4</u>	<u>6.93</u>	<u>2051</u>	<u>0.30</u>	<u>5.67</u>	<u>-12.6</u>	<u>CLEAR</u>
	<u>0917</u>	<u>94</u>									

NOTES (continued)

ABBREVIATIONS

Cond. - Actual Conductivity
 FT BTOC - Feet Below Top of Casing
 na - Not Applicable
 nm - Not Measured
 ORP - Oxidation-Reduction Potential
 SEC - Specific Electrical Conductance
 SU - Standard Units
 Temp - Temperature
 °C - Degrees Celsius

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION			
Site: <u>CWLP</u>	Client: _____	Project Number: _____	Task #: <u>1</u>
Field Personnel: <u>J. RILEY D. SHUMWAY</u>	Start Date: <u>5/26/21</u>	Finish Date: <u>5/26/21</u>	Time: <u>1330</u>

WELL INFORMATION	EVENT TYPE
Well ID: <u>AP3AD6</u>	<input type="checkbox"/> Well Development
Casing ID: _____ inches	<input checked="" type="checkbox"/> Low-Flow / Low Stress Sampling
	<input type="checkbox"/> Well Volume Approach Sampling
	<input type="checkbox"/> Other (Specify): _____

WATER QUALITY INDICATOR PARAMETERS (continued)

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
	<u>1233</u>		<u>6.44</u>								
	<u>1336</u>	<u>.13</u>	<u>6.00</u>	<u>1.56</u>	<u>15.1</u>	<u>7.22</u>	<u>800</u>	<u>1.97</u>	<u>285</u>	<u>88.6</u>	<u>CLEAR</u>
	<u>1339</u>	<u>.26</u>	<u>8.30</u>	<u>0.30</u>	<u>16.1</u>	<u>7.13</u>	<u>297</u>	<u>1.78</u>	<u>16.92</u>	<u>92.0</u>	<u>CLEAR</u>
	<u>1342</u>	<u>.39</u>	<u>8.69</u>	<u>0.34</u>	<u>16.5</u>	<u>7.06</u>	<u>195</u>	<u>2.14</u>	<u>7.70</u>	<u>85.9</u>	<u>CLEAR</u>
	<u>1345</u>	<u>.52</u>	<u>8.81</u>	<u>0.12</u>	<u>17.5</u>	<u>7.01</u>	<u>199</u>	<u>2.10</u>	<u>4.79</u>	<u>87.7</u>	<u>CLEAR</u>
	<u>1348</u>	<u>.65</u>	<u>8.81</u>	<u>-</u>	<u>18.6</u>	<u>7.07</u>	<u>199</u>	<u>2.18</u>	<u>8.76</u>	<u>86.2</u>	<u>CLEAR</u>

NOTES (continued)	ABBREVIATIONS
	Cond. - Actual Conductivity FT BTOC - Feet Below Top of Casing na - Not Applicable nm - Not Measured ORP - Oxidation-Reduction Potential SEC - Specific Electrical Conductance SU - Standard Units Temp - Temperature °C - Degrees Celcius

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: CWLP Client: _____
 Project Number: _____ Task #: _____ Start Date: 5/27/21 Time: 1106
 Field Personnel: J. RILEY P. SULLIVAN Finish Date: 5/27/21 Time: 1120

WELL INFORMATION	EVENT TYPE
Well ID: <u>AP4</u>	<input type="checkbox"/> Well Development
Casing ID: _____ inches	<input checked="" type="checkbox"/> Low-Flow / Low Stress Sampling
	<input type="checkbox"/> Well Volume Approach Sampling
	<input type="checkbox"/> Other (Specify): _____

WATER QUALITY INDICATOR PARAMETERS (continued)

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (us/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
	<u>1106</u>		<u>9.77</u>								
	<u>1108</u>	<u>.13</u>	<u>10.12</u>	<u>0.35</u>	<u>15.6</u>	<u>6.80</u>	<u>1049</u>	<u>1.16</u>	<u>175.99</u>	<u>-135.9</u>	<u>CLOUDY</u>
	<u>1112</u>	<u>.20</u>	<u>10.12</u>	<u>-</u>	<u>17.8</u>	<u>6.86</u>	<u>1050</u>	<u>0.91</u>	<u>132.87</u>	<u>-130.6</u>	<u>CLOUDY</u>
	<u>1115</u>	<u>.37</u>	<u>10.12</u>	<u>-</u>	<u>15.7</u>	<u>6.87</u>	<u>1051</u>	<u>0.97</u>	<u>89.55</u>	<u>-141.6</u>	<u>CLOUDY</u>
	<u>1118</u>	<u>.52</u>	<u>10.12</u>	<u>-</u>	<u>15.5</u>	<u>6.76</u>	<u>1057</u>	<u>0.36</u>	<u>101.92</u>	<u>-145.2</u>	<u>CLOUDY</u>
	<u>1121</u>	<u>.63</u>	<u>10.12</u>	<u>-</u>	<u>15.7</u>	<u>6.76</u>	<u>1057</u>	<u>0.97</u>	<u>102.07</u>	<u>-145.2</u>	<u>CLOUDY</u>
	<u>1124</u>	<u>.78</u>	<u>10.12</u>	<u>-</u>	<u>15.7</u>	<u>6.74</u>	<u>1057</u>	<u>0.98</u>	<u>120.12</u>	<u>-147.7</u>	

NOTES (continued)	ABBREVIATIONS
	Cond. - Actual Conductivity FT BTOT - Feet Below Top of Casing na - Not Applicable nm - Not Measured ORP - Oxidation-Reduction Potential SEC - Specific Electrical Conductance SU - Standard Units Temp - Temperature °C - Degrees Celsius

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: CWLP Client: _____
 Project Number: _____ Task #: _____ Start Date: 5/27/21 Time: 1139
 Field Personnel: J. RILEY P. SMULTZ Finish Date: 5/27/21 Time: 1148

WELL INFORMATION	EVENT TYPE
Well ID: <u>ABS</u>	<input type="checkbox"/> Well Development
Casing ID: _____ inches	<input checked="" type="checkbox"/> Low-Flow / Low Stress Sampling
	<input type="checkbox"/> Well Volume Approach Sampling <input type="checkbox"/> Other (Specify): _____

WATER QUALITY INDICATOR PARAMETERS (continued)

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
	<u>1130</u>		<u>10.12</u>								
	<u>1142</u>	<u>.13</u>	<u>11.34</u>	<u>1.24</u>	<u>13.6</u>	<u>7.08</u>	<u>822</u>	<u>2.83</u>	<u>1.96</u>	<u>12.4</u>	<u>CLEAR</u>
	<u>1145</u>	<u>.26</u>	<u>11.24</u>	<u>-</u>	<u>13.1</u>	<u>7.10</u>	<u>778</u>	<u>3.43</u>	<u>1.35</u>	<u>23.0</u>	<u>CLEAR</u>
	<u>1148</u>	<u>.39</u>	<u>11.34</u>	<u>-</u>	<u>13.5</u>	<u>7.03</u>	<u>801</u>	<u>3.23</u>	<u>1.47</u>	<u>31.2</u>	<u>CLEAR</u>

NOTES (continued)

ABBREVIATIONS

Cond. - Actual Conductivity FT BTOC - Feet Below Top of Casing na - Not Applicable nm - Not Measured	ORP - Oxidation-Reduction Potential SEC - Specific Electrical Conductance SU - Standard Units Temp - Temperature *C - Degrees Celsius
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21050431

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: CWLP Client: _____

Project Number: _____ Task #: _____ Start Date: 5/27/21 Time: 0920

Field Personnel: J. RTLEY P. SHULTZ Finish Date: 5/27/21 Time: 0932

WELL INFORMATION	EVENT TYPE
Well ID: <u>APW3</u>	<input type="checkbox"/> Well Development
Casing ID: _____ inches	<input checked="" type="checkbox"/> Low-Flow / Low Stress Sampling
	<input type="checkbox"/> Well Volume Approach Sampling
	<input type="checkbox"/> Other (Specify): _____

WATER QUALITY INDICATOR PARAMETERS (continued)

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
	<u>0920</u>		<u>8.48</u>								
	<u>0923</u>	<u>.13</u>	<u>8.90</u>	<u>0.42</u>	<u>12.9</u>	<u>6.71</u>	<u>1258</u>	<u>1.60</u>	<u>23.74</u>	<u>62.4</u>	<u>CLEAR</u>
	<u>0926</u>	<u>.26</u>	<u>8.90</u>	<u>-</u>	<u>12.7</u>	<u>6.62</u>	<u>1264</u>	<u>0.92</u>	<u>5.35</u>	<u>-59.9</u>	<u>CLEAR</u>
	<u>0929</u>	<u>.39</u>	<u>8.90</u>	<u>-</u>	<u>12.7</u>	<u>6.60</u>	<u>1270</u>	<u>0.30</u>	<u>0</u>	<u>-62.4</u>	<u>CLEAR</u>
	<u>0932</u>	<u>.52</u>	<u>8.90</u>	<u>-</u>	<u>12.7</u>	<u>6.62</u>	<u>1273</u>	<u>0.25</u>	<u>0</u>	<u>-65.6</u>	<u>CLEAR</u>

NOTES (continued) **ABBREVIATIONS**

Cond. - Actual Conductivity FT BTOC - Feet Below Top of Casing na - Not Applicable nm - Not Measured	ORP - Oxidation-Reduction Potential SEC - Specific Electrical Conductance SU - Standard Units Temp - Temperature °C - Degrees Celcius
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WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: CWLP Client: _____
 Project Number: _____ Task #: _____ Start Date: 5/26/21 Time: 1223
 Field Personnel: J. RILEY P. SHULTZ Finish Date: 5/26/21 Time: 1235

WELL INFORMATION	EVENT TYPE
Well ID: <u>AP 7</u>	<input type="checkbox"/> Well Development <input checked="" type="checkbox"/> Low-Flow / Low Stress Sampling
Casing ID: _____ inches	<input type="checkbox"/> Well Volume Approach Sampling <input type="checkbox"/> Other (Specify): _____

WATER QUALITY INDICATOR PARAMETERS: (continued)

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
	<u>1223</u>		<u>10.40</u>								
	<u>1226</u>	<u>.13</u>	<u>11.60</u>	<u>1.20</u>	<u>15.0</u>	<u>7.30</u>	<u>048</u>	<u>3.64</u>	<u>16.95</u>	<u>47.0</u>	<u>CLEAR</u>
	<u>1229</u>	<u>-.26</u>	<u>12.38</u>	<u>1.78</u>	<u>13.4</u>	<u>7.09</u>	<u>024</u>	<u>1.00</u>	<u>10.30</u>	<u>-28.8</u>	<u>CLEAR</u>
	<u>1232</u>	<u>-.39</u>	<u>13.19</u>	<u>0.31</u>	<u>19.1</u>	<u>7.04</u>	<u>023</u>	<u>0.60</u>	<u>9.62</u>	<u>-50.3</u>	<u>CLEAR</u>
	<u>1235</u>	<u>.52</u>	<u>13.14</u>	<u>-</u>	<u>13.8</u>	<u>7.03</u>	<u>025</u>	<u>0.83</u>	<u>9.51</u>	<u>-46.9</u>	<u>CLEAR</u>

NOTES (continued)	ABBREVIATIONS
	Cond. - Actual Conductivity FT BTOC - Feet Below Top of Casing na - Not Applicable nm - Not Measured ORP - Oxidation-Reduction Potential SEC - Specific Electrical Conductance SU - Standard Units Temp - Temperature °C - Degrees Celsius

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: CWLP Client: _____
 Project Number: _____ Task #: _____ Start Date: 5/26/21 Time: 11:46
 Field Personnel: J. RILEY D. SAULTS Finish Date: 5/26/21 Time: 1:39

WELL INFORMATION		EVENT TYPE	
Well ID: <u>AP2</u>	<input type="checkbox"/> Well Development	<input checked="" type="checkbox"/> Low-Flow / Low Stress Sampling	
Casing ID: _____ inches	<input type="checkbox"/> Well Volume Approach Sampling	<input type="checkbox"/> Other (Specify): _____	

WATER QUALITY INDICATOR PARAMETERS (continued)

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (us/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
	<u>1416</u>		<u>3.41</u>								
	<u>1423</u>	<u>.34</u>	<u>7.80</u>	<u>4.11</u>	<u>13.7</u>	<u>7.00</u>	<u>1056</u>	<u>0.34</u>	<u>49.71</u>	<u>-168.9</u>	<u>CLEAR</u>
	<u>1428</u>	<u>.52</u>	<u>8.97</u>	<u>0.17</u>	<u>13.6</u>	<u>6.92</u>	<u>1055</u>	<u>0.38</u>	<u>24.52</u>	<u>-163.9</u>	<u>CLEAR</u>
	<u>1431</u>	<u>.63</u>	<u>8.23</u>	<u>0.20</u>	<u>13.6</u>	<u>6.90</u>	<u>1053</u>	<u>0.22</u>	<u>12.02</u>	<u>-162.0</u>	<u>CLEAR</u>
	<u>1434</u>	<u>.78</u>	<u>8.2</u>	<u>✓</u>	<u>13.6</u>	<u>6.90</u>	<u>1056</u>	<u>0.21</u>	<u>5.98</u>	<u>-159.3</u>	<u>CLEAR</u>

NOTES (continued)	ABBREVIATIONS
	Cond. - Actual Conductivity ORP - Oxidation-Reduction Potential FT BTOC - Feet Below Top of Casing SEC - Specific Electrical Conductance na - Not Applicable SU - Standard Units nm - Not Measured Temp - Temperature °C - Degrees Celcius

21050931

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: CWLP Client: _____
 Project Number: _____ Task #: _____ Start Date: 5/26/12 Time: 1443
 Field Personnel: J. DALEY D. SWALTZ Finish Date: 5/26/12 Time: 1513

WELL INFORMATION	EVENT TYPE
Well ID: <u>AP10</u> Casing ID: _____ inches	<input type="checkbox"/> Well Development <input type="checkbox"/> Well Volume Approach Sampling <input type="checkbox"/> Low-Flow / Low Stress Sampling <input type="checkbox"/> Other (Specify): _____

WATER QUALITY INDICATOR PARAMETERS (continued)

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
	<u>1443</u>		<u>2.64</u>								
	<u>1504</u>		<u>7.30</u>	<u>14.</u>	<u>13.5</u>	<u>6.54</u>	<u>1365</u>	<u>0.65</u>	<u>73.51</u>	<u>-114.2</u>	<u>CLOUDY</u>
	<u>1507</u>		<u>23.62</u>		<u>13.5</u>	<u>6.55</u>	<u>1364</u>	<u>0.35</u>	<u>54.71</u>	<u>-112.3</u>	<u>CLOUDY</u>
	<u>1510</u>		<u>26.50</u>		<u>13.6</u>	<u>6.52</u>	<u>1362</u>	<u>0.32</u>	<u>52.86</u>	<u>-112.5</u>	<u>CLOUDY</u>
	<u>1513</u>		<u>24.91</u>		<u>13.6</u>	<u>6.53</u>	<u>1361</u>	<u>0.27</u>	<u>81.32</u>	<u>-115.3</u>	<u>CLOUDY</u>

NOTES (continued)	ABBREVIATIONS
<u>WELL WOULDNT CLEAR UP</u>	Cond. - Actual Conductivity FT BTCC - Feet Below Top of Casing na - Not Applicable nm - Not Measured ORP - Oxidation-Reduction Potential SEC - Specific Electrical Conductance SU - Standard Units Temp - Temperature °C - Degrees Celcius

21050431

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: CWLP Client:
Project Number: Task #: Start Date: 5/21/21 Time: 0945
Field Personnel: J. RILEY D. SWARTZ Finish Date: 5/21/21 Time: 1030

WELL INFORMATION

Well ID: AP14
Casing ID: inches

EVENT TYPE

Well Development
Well Volume Approach Sampling
Low-Flow / Low Stress Sampling
Other (Specify):

WATER QUALITY INDICATOR PARAMETERS (continued)

Table with 12 columns: Sampling Stage, Time (military), Volume Removed (gallons), Depth to Water (Feet), Drawdown (Feet), Temp. (°C), pH (SU), SEC or Cond. (µs/cm), Dissolved Oxygen (mg/L), Turbidity (NTU), ORP (mV), Visual Clarity. Contains handwritten data for four sampling stages.

NOTES (continued)

DRAWS DOWN FAST
QUICK RECHARGE
WOULDN'T CLEAR UP

ABBREVIATIONS

Cond. - Actual Conductivity
FT BTDC - Feet Below Top of Casing
na - Not Applicable
nm - Not Measured
ORP - Oxidation-Reduction Potential
SEC - Specific Electrical Conductance
SU - Standard Units
Temp - Temperature
°C - Degrees Celsius

June 28, 2021

Ms. Shelly Hennessy
Teklab Inc.
5445 Horseshoe Lake Road
Collinsville, IL 62234

RE: Project: 21050932
Pace Project No.: 30424393

Dear Ms. Hennessy:

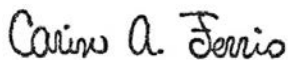
Enclosed are the analytical results for sample(s) received by the laboratory on June 01, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Carin Ferris
carin.ferris@pacelabs.com
724-850-5615
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 21050932
Pace Project No.: 30424393

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 9526

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 21050932

Pace Project No.: 30424393

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30424393001	21050932-001	Water	05/26/21 11:25	06/01/21 09:30
30424393002	21050932-002	Water	05/27/21 08:48	06/01/21 09:30
30424393003	21050932-003	Water	05/27/21 09:14	06/01/21 09:30
30424393004	21050932-004	Water	05/26/21 15:48	06/01/21 09:30
30424393005	21050932-005	Water	05/27/21 11:24	06/01/21 09:30
30424393006	21050932-006	Water	05/27/21 11:48	06/01/21 09:30
30424393007	21050932-007	Water	05/27/21 09:32	06/01/21 09:30
30424393008	21050932-008	Water	05/26/21 12:35	06/01/21 09:30
30424393009	21050932-009	Water	05/26/21 14:34	06/01/21 09:30
30424393010	21050932-010	Water	05/26/21 15:13	06/01/21 09:30
30424393011	21050932-011	Water	05/27/21 10:30	06/01/21 09:30

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 21050932
Pace Project No.: 30424393

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30424393001	21050932-001	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
30424393002	21050932-002	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
30424393003	21050932-003	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
30424393004	21050932-004	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
30424393005	21050932-005	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
30424393006	21050932-006	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
30424393007	21050932-007	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
30424393008	21050932-008	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
30424393009	21050932-009	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
30424393010	21050932-010	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
30424393011	21050932-011	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 21050932
Pace Project No.: 30424393

Method: EPA 903.1
Description: 903.1 Radium 226
Client: Teklab Inc.
Date: June 28, 2021

General Information:

11 samples were analyzed for EPA 903.1 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 21050932
Pace Project No.: 30424393

Method: EPA 904.0
Description: 904.0 Radium 228
Client: Teklab Inc.
Date: June 28, 2021

General Information:

11 samples were analyzed for EPA 904.0 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21050932

Pace Project No.: 30424393

Sample: 21050932-001 **Lab ID: 30424393001** Collected: 05/26/21 11:25 Received: 06/01/21 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.121 ± 0.323 (0.527) C:NA T:91%	pCi/L	06/25/21 15:57	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.452 ± 0.476 (0.986) C:70% T:92%	pCi/L	06/25/21 17:34	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21050932

Pace Project No.: 30424393

Sample: 21050932-002 **Lab ID: 30424393002** Collected: 05/27/21 08:48 Received: 06/01/21 09:30 Matrix: Water

PWS: Site ID: Sample Type:

Comments: • Sample collection time on containers does not match COC; client was notified.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.384 ± 0.446 (0.680) C:NA T:91%	pCi/L	06/25/21 15:57	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.704 ± 0.510 (0.992) C:76% T:90%	pCi/L	06/25/21 17:34	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21050932

Pace Project No.: 30424393

Sample: 21050932-003 **Lab ID: 30424393003** Collected: 05/27/21 09:14 Received: 06/01/21 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.320 ± 0.501 (0.838) C:NA T:90%	pCi/L	06/25/21 15:57	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	1.01 ± 0.569 (1.02) C:73% T:81%	pCi/L	06/25/21 17:34	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21050932

Pace Project No.: 30424393

Sample: 21050932-004 **Lab ID: 30424393004** Collected: 05/26/21 15:48 Received: 06/01/21 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.517 ± 0.533 (0.777) C:NA T:93%	pCi/L	06/25/21 15:57	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.160 ± 0.411 (0.921) C:73% T:89%	pCi/L	06/25/21 17:34	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21050932
Pace Project No.: 30424393

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: 21050932-005 Lab ID: 30424393005 Collected: 05/27/21 11:24 Received: 06/01/21 09:30 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.620 ± 0.444 (0.494) C:NA T:95%	pCi/L	06/25/21 15:57	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	1.76 ± 1.03 (1.91) C:74% T:91%	pCi/L	06/25/21 17:34	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21050932

Pace Project No.: 30424393

Sample: 21050932-006 **Lab ID: 30424393006** Collected: 05/27/21 11:48 Received: 06/01/21 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.0571 ± 0.571 (1.08) C:NA T:87%	pCi/L	06/25/21 15:57	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	-0.0212 ± 0.369 (0.875) C:73% T:92%	pCi/L	06/25/21 17:35	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21050932

Pace Project No.: 30424393

Sample: 21050932-007 **Lab ID: 30424393007** Collected: 05/27/21 09:32 Received: 06/01/21 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.338 ± 0.379 (0.550) C:NA T:85%	pCi/L	06/25/21 16:15	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.119 ± 0.387 (0.879) C:76% T:84%	pCi/L	06/25/21 17:35	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21050932

Pace Project No.: 30424393

Sample: 21050932-008 **Lab ID: 30424393008** Collected: 05/26/21 12:35 Received: 06/01/21 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.171 ± 0.449 (0.821) C:NA T:96%	pCi/L	06/25/21 16:15	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.743 ± 0.505 (0.951) C:68% T:91%	pCi/L	06/25/21 17:35	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21050932

Pace Project No.: 30424393

Sample: 21050932-009 **Lab ID: 30424393009** Collected: 05/26/21 14:34 Received: 06/01/21 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	1.26 ± 0.814 (1.05) C:NA T:87%	pCi/L	06/25/21 16:15	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.313 ± 0.421 (0.899) C:70% T:97%	pCi/L	06/25/21 17:35	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21050932

Pace Project No.: 30424393

Sample: 21050932-010 **Lab ID: 30424393010** Collected: 05/26/21 15:13 Received: 06/01/21 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	1.61 ± 0.941 (0.932) C:NA T:85%	pCi/L	06/25/21 16:15	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	-0.216 ± 0.798 (1.95) C:70% T:88%	pCi/L	06/25/21 17:44	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21050932

Pace Project No.: 30424393

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: 21050932-011 Lab ID: 30424393011 Collected: 05/27/21 10:30 Received: 06/01/21 09:30 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.162 ± 0.452 (0.219) C:NA T:87%	pCi/L	06/25/21 16:15	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.965 ± 1.00 (2.06) C:70% T:89%	pCi/L	06/25/21 17:44	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 21050932

Pace Project No.: 30424393

QC Batch: 451482

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30424393001, 30424393002, 30424393003, 30424393004, 30424393005, 30424393006, 30424393007, 30424393008, 30424393009, 30424393010, 30424393011

METHOD BLANK: 2178905

Matrix: Water

Associated Lab Samples: 30424393001, 30424393002, 30424393003, 30424393004, 30424393005, 30424393006, 30424393007, 30424393008, 30424393009, 30424393010, 30424393011

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.314 ± 0.326 (0.670) C:71% T:81%	pCi/L	06/25/21 11:35	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 21050932

Pace Project No.: 30424393

QC Batch: 451481

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30424393001, 30424393002, 30424393003, 30424393004, 30424393005, 30424393006, 30424393007, 30424393008, 30424393009, 30424393010, 30424393011

METHOD BLANK: 2178903

Matrix: Water

Associated Lab Samples: 30424393001, 30424393002, 30424393003, 30424393004, 30424393005, 30424393006, 30424393007, 30424393008, 30424393009, 30424393010, 30424393011

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.216 ± 0.351 (0.594) C:NA T:88%	pCi/L	06/25/21 15:41	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 21050932
Pace Project No.: 30424393

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.

Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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TEKLAB, INC. Chain of Custody

WO# : 30424393

Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples

Ice Blue Ice Preserved in: Lab Field

Teklab Inc
5445 Horseshoe
Collinsville, IL 62234



30424393

Sampler: J. Riley QC Level: 2

Project# 21050932

Comments: **Please Issue reports and invoices via email only**

Please analyze for Radium (226, 228) by method EPA901.1 on your standard turnaround time.

Batch QC is required for all analyses requested.

Any changes to analysis/methods must be approved by Teklab, Inc.

Contact: Shelly A. Hennessy

Email: shennessy@teklabinc.com

Requested Due Date: STD TAT

Billing/PO: 31268

Phone: (618) 344-1004 ext 36

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Radium 226/228	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix
	21050932-001	5/26/21 1125	HNO3	Aqueous
	21050932-002	5/27/21 0848	HNO3	Aqueous
	21050932-003	5/27/21 0914	HNO3	Aqueous
	21050932-004	5/26/21 1548	HNO3	Aqueous
	21050932-005	5/27/21 1124	HNO3	Aqueous
	21050932-006	5/27/21 1148	HNO3	Aqueous
	21050932-007	5/27/21 0932	HNO3	Aqueous
	21050932-008	5/26/21 1235	HNO3	Aqueous
	21050932-009	5/26/21 1434	HNO3	Aqueous
	21050932-010	5/26/21 1513	HNO3	Aqueous
	21050932-011	5/27/21 1030	HNO3	Aqueous

*Relinquished By <i>Mary Kemp</i>	Date/Time <i>5/28/21 08:30</i>	Received By <i>A FLOCK</i>	Date/Time <i>5/11/21 09:30</i>

Resp. to 18 CFR 1.564, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization. and proprietary rights, Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

Pittsburgh Lab Sample Condition Upon Receipt



Client Name: TEK Lab Inc

Project # _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 9480 9225 0663

Label <u>AF</u>
LIMS Login <u>AF</u>

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Thermometer Used N/A Type of Ice: Wet Blue None

Cooler Temperature Observed Temp _____ °C Correction Factor: _____ °C Final Temp: _____ °C

Temp should be above freezing to 6°C

PM: CAF
 CLIENT: TEKLAB
 Due Date: 06/22/21
NO#: 30424393

Comments:	pH paper Lot#			Date and Initials of person examining contents:
	Yes	No	N/A	
Chain of Custody Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1. 1003801 06/10/21 AF
Chain of Custody Filled Out:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.
Sampler Name & Signature on COC:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4.
Sample Labels match COC: -Includes date/time/ID Matrix: <u>WT</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5. Sample 002 → C.O.C says 08.48 sample reads 09:14
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.
Short Hold Time Analysis (<72hr remaining):	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7.
Rush Turn Around Time Requested:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8.
Sufficient Volume:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.
Correct Containers Used: -Pace Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.
Containers Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11.
Orthophosphate field filtered	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	12.
Hex Cr Aqueous sample field filtered	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	13.
Organic Samples checked for dechlorination:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	14.
Filtered volume received for Dissolved tests All containers have been checked for preservation.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	15.
exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16. pH < 2
All containers meet method preservation requirements.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed: <u>AF</u> Date/time of preservation: _____
				Lot # of added preservative: _____
Headspace in VOA Vials (>6mm):	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	17.
Trip Blank Present:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	18.
Trip Blank Custody Seals Present	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Rad Samples Screened < 0.5 mrem/hr	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed: <u>AF</u> Date: <u>6/7/21</u> Survey Meter SN: <u>1563</u>

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

A check in this box indicates that additional information has been stored in ereports.

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

August 27, 2020

Eric Staley
City Water, Light & Power
201 E. Lake Shore Drive
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615



RE: Ash Pond Monitoring Wells

WorkOrder: 20071643

Dear Eric Staley:

TEKLAB, INC received 8 samples on 8/6/2020 12:10:00 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,



Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com



Report Contents

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

Client: City Water, Light & Power

Work Order: 20071643

Client Project: Ash Pond Monitoring Wells

Report Date: 27-Aug-2020

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	4
Accreditations	5
Laboratory Results	6
Receiving Check List	14
Chain of Custody	Appended

Client: City Water, Light & Power

Work Order: 20071643

Client Project: Ash Pond Monitoring Wells

Report Date: 27-Aug-2020

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
- 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)

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: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 20071643
Report Date: 27-Aug-2020

Cooler Receipt Temp: 2.4 °C

An employee of Teklab, Inc. collected the sample(s).

AP-8, AP-9 and AP-10 have not been installed per Eric Staley. SAH 8/7/20

Radium-226 and Radium-228 analysis was performed by Pace Analytical Services, LLC. See attached report for results.

Locations

Collinsville

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Accreditations

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

Client: City Water, Light & Power

Work Order: 20071643

Client Project: Ash Pond Monitoring Wells

Report Date: 27-Aug-2020

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2021	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2021	Collinsville
Louisiana	LDEQ	166493	NELAP	6/30/2021	Collinsville
Louisiana	LDEQ	166578	NELAP	6/30/2021	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2021	Collinsville
Arkansas	ADEQ	88-0966		3/14/2021	Collinsville
Illinois	IDPH	17584		5/31/2021	Collinsville
Kentucky	UST	0073		1/31/2021	Collinsville
Missouri	MDNR	00930		5/31/2021	Collinsville
Missouri	MDNR	930		1/31/2022	Collinsville



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 20071643-001
 Matrix: GROUNDWATER

Work Order: 20071643
 Report Date: 27-Aug-2020

Client Sample ID: RW-3

Collection Date: 08/05/2020 11:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		495.52	ft	1	08/05/2020 11:00	R280186
Depth to water	*	-5.00		8.31	ft	1	08/05/2020 11:00	R280186
Depth to water from measuring point	*	0		11.01	ft	1	08/05/2020 11:00	R280186
Elevation of groundwater surface	*	0		528.49	ft	1	08/05/2020 11:00	R280186
Measuring Point Elevation	*	0		539.50	ft	1	08/05/2020 11:00	R280186
Measuring Point Height Above Land Surface	*	0		2.70	ft	1	08/05/2020 11:00	R280186
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		56.8	°F	1	08/05/2020 11:00	R280186
SW-846 9040B								
pH, Field	*	1.00		7.29		1	08/05/2020 11:00	R280186
SW-846 9050A								
Spec. Conductance, Field	*	1.00		650	µmhos/cm @25C	1	08/05/2020 11:00	R280186
STANDARD METHODS 2540 C (TOTAL) 1997								
Total Dissolved Solids	NELAP	50		335	mg/L	2.5	08/06/2020 14:24	R280107
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		20	mg/L	1	08/07/2020 16:51	R280200
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.45	mg/L	1	08/07/2020 16:08	R280230
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		28	mg/L	1	08/07/2020 16:51	R280201
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		0.253	mg/L	1	08/11/2020 17:10	168102
Barium	NELAP	0.0025		0.189	mg/L	1	08/11/2020 17:10	168102
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	08/11/2020 17:10	168102
Boron	NELAP	0.0200		0.185	mg/L	1	08/11/2020 17:10	168102
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/11/2020 17:10	168102
Calcium	NELAP	0.100	S	73.8	mg/L	1	08/11/2020 17:10	168102
Chromium	NELAP	0.0050		0.0052	mg/L	1	08/11/2020 17:10	168102
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	08/11/2020 17:10	168102
Lead	NELAP	0.0150		< 0.0150	mg/L	1	08/11/2020 17:10	168102
Lithium	NELAP	0.0050		0.0098	mg/L	1	08/11/2020 17:10	168102
Molybdenum	NELAP	0.0100		0.0116	mg/L	1	08/11/2020 17:10	168102
<i>Matrix spike control limits for Ca are not applicable due to high sample/spike ratio.</i>								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	08/07/2020 16:05	168103
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	08/07/2020 16:05	168103
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	08/07/2020 16:05	168103
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/07/2020 10:24	168114
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	08/21/2020 0:00	R280923
Radium-228	*	0		See attached	pci/L	1	08/21/2020 0:00	R280923



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 20071643-002
 Matrix: GROUNDWATER

Work Order: 20071643
 Report Date: 27-Aug-2020

Client Sample ID: AP-1

Collection Date: 08/05/2020 12:53

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		504.28	ft	1	08/05/2020 12:53	R280186
Depth to water	*	-5.00		8.58	ft	1	08/05/2020 12:53	R280186
Depth to water from measuring point	*	0		10.85	ft	1	08/05/2020 12:53	R280186
Elevation of groundwater surface	*	0		524.52	ft	1	08/05/2020 12:53	R280186
Measuring Point Elevation	*	0		535.37	ft	1	08/05/2020 12:53	R280186
Measuring Point Height Above Land Surface	*	0		2.27	ft	1	08/05/2020 12:53	R280186
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		57.2	°F	1	08/05/2020 12:53	R280186
SW-846 9040B								
pH, Field	*	1.00		6.80		1	08/05/2020 12:53	R280186
SW-846 9050A								
Spec. Conductance, Field	*	1.00		1560	µmhos/cm @25C	1	08/05/2020 12:53	R280186
STANDARD METHODS 2540 C (TOTAL) 1997								
Total Dissolved Solids	NELAP	50		1320	mg/L	2.5	08/06/2020 14:24	R280107
SW-846 9036 (TOTAL)								
Sulfate	NELAP	500		683	mg/L	50	08/13/2020 12:14	R280397
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.20	mg/L	1	08/07/2020 16:10	R280230
SW-846 9251 (TOTAL)								
Chloride	NELAP	20		60	mg/L	5	08/07/2020 16:57	R280201
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/10/2020 17:09	168102
Barium	NELAP	0.0025		0.464	mg/L	1	08/10/2020 17:09	168102
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	08/10/2020 17:09	168102
Boron	NELAP	0.0400		21.5	mg/L	2	08/12/2020 12:55	168102
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/10/2020 17:09	168102
Calcium	NELAP	0.100		242	mg/L	1	08/10/2020 17:09	168102
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/10/2020 17:09	168102
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	08/10/2020 17:09	168102
Lead	NELAP	0.0150		< 0.0150	mg/L	1	08/10/2020 17:09	168102
Lithium	NELAP	0.0050		0.0098	mg/L	1	08/10/2020 17:09	168102
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	08/10/2020 17:09	168102
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	08/07/2020 16:13	168103
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	08/07/2020 16:13	168103
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	08/07/2020 16:13	168103
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/07/2020 10:26	168114
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	08/21/2020 0:00	R280923
Radium-228	*	0		See attached	pci/L	1	08/21/2020 0:00	R280923



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 20071643-003
 Matrix: GROUNDWATER

Work Order: 20071643
 Report Date: 27-Aug-2020

Client Sample ID: AP-2

Collection Date: 08/05/2020 13:10

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		514.80	ft	1	08/05/2020 13:10	R280186
Depth to water	*	-5.00		5.52	ft	1	08/05/2020 13:10	R280186
Depth to water from measuring point	*	0		8.02	ft	1	08/05/2020 13:10	R280186
Elevation of groundwater surface	*	0		528.08	ft	1	08/05/2020 13:10	R280186
Measuring Point Elevation	*	0		536.10	ft	1	08/05/2020 13:10	R280186
Measuring Point Height Above Land Surface	*	0		2.50	ft	1	08/05/2020 13:10	R280186
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		58.5	°F	1	08/05/2020 13:10	R280186
SW-846 9040B								
pH, Field	*	1.00		6.66		1	08/05/2020 13:10	R280186
SW-846 9050A								
Spec. Conductance, Field	*	1.00		1530	µmhos/cm @25C	1	08/05/2020 13:10	R280186
STANDARD METHODS 2540 C (TOTAL) 1997								
Total Dissolved Solids	NELAP	20		1400	mg/L	1	08/06/2020 14:25	R280107
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		709	mg/L	20	08/07/2020 17:38	R280200
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.22	mg/L	1	08/07/2020 16:11	R280230
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		36	mg/L	1	08/07/2020 17:34	R280201
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/10/2020 17:13	168102
Barium	NELAP	0.0025		0.0994	mg/L	1	08/10/2020 17:13	168102
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	08/10/2020 17:13	168102
Boron	NELAP	0.0200		4.95	mg/L	1	08/12/2020 10:53	168102
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/10/2020 17:13	168102
Calcium	NELAP	0.100		287	mg/L	1	08/10/2020 17:13	168102
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/10/2020 17:13	168102
Cobalt	NELAP	0.0050		0.0139	mg/L	1	08/10/2020 17:13	168102
Lead	NELAP	0.0150		< 0.0150	mg/L	1	08/10/2020 17:13	168102
Lithium	NELAP	0.0050		0.0071	mg/L	1	08/10/2020 17:13	168102
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	08/10/2020 17:13	168102
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	08/07/2020 16:21	168103
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	08/07/2020 16:21	168103
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	08/07/2020 16:21	168103
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/07/2020 10:33	168114
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	08/21/2020 0:00	R280923
Radium-228	*	0		See attached	pci/L	1	08/21/2020 0:00	R280923



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 20071643-004
 Matrix: GROUNDWATER

Work Order: 20071643
 Report Date: 27-Aug-2020

Client Sample ID: AP-3

Collection Date: 08/05/2020 13:26

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		516.29	ft	1	08/05/2020 13:26	R280186
Depth to water	*	-5.00		7.65	ft	1	08/05/2020 13:26	R280186
Depth to water from measuring point	*	0		9.35	ft	1	08/05/2020 13:26	R280186
Elevation of groundwater surface	*	0		526.05	ft	1	08/05/2020 13:26	R280186
Measuring Point Elevation	*	0		535.40	ft	1	08/05/2020 13:26	R280186
Measuring Point Height Above Land Surface	*	0		1.70	ft	1	08/05/2020 13:26	R280186
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		60.3	°F	1	08/05/2020 13:26	R280186
SW-846 9040B								
pH, Field	*	1.00		6.78		1	08/05/2020 13:26	R280186
SW-846 9050A								
Spec. Conductance, Field	*	1.00		998	µmhos/cm @25C	1	08/05/2020 13:26	R280186
STANDARD METHODS 2540 C (TOTAL) 1997								
Total Dissolved Solids	NELAP	20		794	mg/L	1	08/06/2020 14:25	R280107
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		342	mg/L	10	08/07/2020 17:49	R280200
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.23	mg/L	1	08/07/2020 16:12	R280230
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		35	mg/L	1	08/07/2020 17:42	R280201
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/11/2020 17:21	168102
Barium	NELAP	0.0025		0.0953	mg/L	1	08/11/2020 17:21	168102
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	08/11/2020 17:21	168102
Boron	NELAP	0.0200		17.5	mg/L	1	08/11/2020 17:21	168102
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/11/2020 17:21	168102
Calcium	NELAP	0.100		157	mg/L	1	08/11/2020 17:21	168102
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/11/2020 17:21	168102
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	08/11/2020 17:21	168102
Lead	NELAP	0.0150		< 0.0150	mg/L	1	08/11/2020 17:21	168102
Lithium	NELAP	0.0050		0.0051	mg/L	1	08/11/2020 17:21	168102
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	08/11/2020 17:21	168102
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	08/07/2020 16:29	168103
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	08/07/2020 16:29	168103
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	08/07/2020 16:29	168103
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/07/2020 10:36	168114
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	08/21/2020 0:00	R280923
Radium-228	*	0		See attached	pci/L	1	08/21/2020 0:00	R280923



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 20071643-005
 Matrix: GROUNDWATER

Work Order: 20071643
 Report Date: 27-Aug-2020

Client Sample ID: AP-4
 Collection Date: 08/06/2020 9:10

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		494.34	ft	1	08/06/2020 9:10	R280186
Depth to water	*	-5.00		5.76	ft	1	08/06/2020 9:10	R280186
Depth to water from measuring point	*	0		8.92	ft	1	08/06/2020 9:10	R280186
Elevation of groundwater surface	*	0		548.14	ft	1	08/06/2020 9:10	R280186
Measuring Point Elevation	*	0		557.06	ft	1	08/06/2020 9:10	R280186
Measuring Point Height Above Land Surface	*	0		3.16	ft	1	08/06/2020 9:10	R280186
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		60.4	°F	1	08/06/2020 9:10	R280186
SW-846 9040B								
pH, Field	*	1.00		6.67		1	08/06/2020 9:10	R280186
SW-846 9050A								
Spec. Conductance, Field	*	1.00		812	µmhos/cm @25C	1	08/06/2020 9:10	R280186
STANDARD METHODS 2540 C (TOTAL) 1997								
Total Dissolved Solids	NELAP	20		480	mg/L	1	08/06/2020 14:25	R280107
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		< 10	mg/L	1	08/07/2020 17:51	R280200
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.14	mg/L	1	08/07/2020 16:13	R280230
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		14	mg/L	1	08/07/2020 17:50	R280201
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/11/2020 17:25	168102
Barium	NELAP	0.0025		0.422	mg/L	1	08/11/2020 17:25	168102
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	08/11/2020 17:25	168102
Boron	NELAP	0.0200		0.0939	mg/L	1	08/12/2020 10:46	168102
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/11/2020 17:25	168102
Calcium	NELAP	0.100		125	mg/L	1	08/11/2020 17:25	168102
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/11/2020 17:25	168102
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	08/11/2020 17:25	168102
Lead	NELAP	0.0150		< 0.0150	mg/L	1	08/11/2020 17:25	168102
Lithium	NELAP	0.0050		0.0071	mg/L	1	08/11/2020 17:25	168102
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	08/11/2020 17:25	168102
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	08/07/2020 17:59	168103
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	08/07/2020 17:59	168103
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	08/07/2020 17:59	168103
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/07/2020 10:38	168114
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	08/21/2020 0:00	R280923
Radium-228	*	0		See attached	pci/L	1	08/21/2020 0:00	R280923



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 20071643-006
 Matrix: GROUNDWATER

Work Order: 20071643
 Report Date: 27-Aug-2020
 Client Sample ID: AP-5
 Collection Date: 08/06/2020 9:35

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		552.75	ft	1	08/06/2020 9:35	R280186
Depth to water	*	-5.00		15.53	ft	1	08/06/2020 9:35	R280186
Depth to water from measuring point	*	0		17.83	ft	1	08/06/2020 9:35	R280186
Elevation of groundwater surface	*	0		566.07	ft	1	08/06/2020 9:35	R280186
Measuring Point Elevation	*	0		583.90	ft	1	08/06/2020 9:35	R280186
Measuring Point Height Above Land Surface	*	0		2.30	ft	1	08/06/2020 9:35	R280186
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		54.9	°F	1	08/06/2020 9:35	R280186
SW-846 9040B								
pH, Field	*	1.00		7.36		1	08/06/2020 9:35	R280186
SW-846 9050A								
Spec. Conductance, Field	*	1.00		558	µmhos/cm @25C	1	08/06/2020 9:35	R280186
STANDARD METHODS 2540 C (TOTAL) 1997								
Total Dissolved Solids	NELAP	200		580	mg/L	10	08/06/2020 14:26	R280107
SW-846 9036 (TOTAL)								
Sulfate	NELAP	20		49	mg/L	2	08/13/2020 12:25	R280397
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.34	mg/L	1	08/07/2020 16:15	R280230
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		7	mg/L	1	08/07/2020 18:14	R280201
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		0.0937	mg/L	1	08/11/2020 17:29	168102
Barium	NELAP	0.0025		1.18	mg/L	1	08/11/2020 17:29	168102
Beryllium	NELAP	0.0005		0.0084	mg/L	1	08/11/2020 17:29	168102
Boron	NELAP	0.0200		0.0440	mg/L	1	08/12/2020 10:50	168102
Cadmium	NELAP	0.0020		0.0050	mg/L	1	08/11/2020 17:29	168102
Calcium	NELAP	0.100		357	mg/L	1	08/11/2020 17:29	168102
Chromium	NELAP	0.0050		0.198	mg/L	1	08/11/2020 17:29	168102
Cobalt	NELAP	0.0050		0.134	mg/L	1	08/11/2020 17:29	168102
Lead	NELAP	0.0150		0.132	mg/L	1	08/11/2020 17:29	168102
Lithium	NELAP	0.0050		0.143	mg/L	1	08/11/2020 17:29	168102
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	08/11/2020 17:29	168102
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		0.0011	mg/L	5	08/07/2020 18:07	168103
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	08/07/2020 18:07	168103
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	08/07/2020 18:07	168103
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		0.00030	mg/L	1	08/07/2020 10:40	168114
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	08/21/2020 0:00	R280923
Radium-228	*	0		See attached	pci/L	1	08/21/2020 0:00	R280923



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 20071643-007
 Matrix: GROUNDWATER

Work Order: 20071643
 Report Date: 27-Aug-2020

Client Sample ID: AP-6

Collection Date: 08/05/2020 12:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		498.20	ft	1	08/05/2020 12:30	R280186
Depth to water	*	-5.00		7.01	ft	1	08/05/2020 12:30	R280186
Depth to water from measuring point	*	0		9.43	ft	1	08/05/2020 12:30	R280186
Elevation of groundwater surface	*	0		528.39	ft	1	08/05/2020 12:30	R280186
Measuring Point Elevation	*	0		537.82	ft	1	08/05/2020 12:30	R280186
Measuring Point Height Above Land Surface	*	0		2.42	ft	1	08/05/2020 12:30	R280186
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		57.2	°F	1	08/05/2020 12:30	R280186
SW-846 9040B								
pH, Field	*	1.00		7.45		1	08/05/2020 12:30	R280186
SW-846 9050A								
Spec. Conductance, Field	*	1.00		469	µmhos/cm @25C	1	08/05/2020 12:30	R280186
STANDARD METHODS 2540 C (TOTAL) 1997								
Total Dissolved Solids	NELAP	50		165	mg/L	2.5	08/06/2020 14:26	R280107
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		18	mg/L	1	08/07/2020 18:17	R280200
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.39	mg/L	1	08/11/2020 12:48	R280327
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		27	mg/L	1	08/07/2020 18:17	R280201
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/11/2020 17:32	168102
Barium	NELAP	0.0025		0.179	mg/L	1	08/11/2020 17:32	168102
Beryllium	NELAP	0.0005		0.0007	mg/L	1	08/11/2020 17:32	168102
Boron	NELAP	0.0200		0.246	mg/L	1	08/11/2020 17:32	168102
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/11/2020 17:32	168102
Calcium	NELAP	0.100		68.9	mg/L	1	08/11/2020 17:32	168102
Chromium	NELAP	0.0050		0.0151	mg/L	1	08/11/2020 17:32	168102
Cobalt	NELAP	0.0050		0.0106	mg/L	1	08/11/2020 17:32	168102
Lead	NELAP	0.0150		< 0.0150	mg/L	1	08/11/2020 17:32	168102
Lithium	NELAP	0.0050		0.0195	mg/L	1	08/11/2020 17:32	168102
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	08/11/2020 17:32	168102
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	08/07/2020 18:15	168103
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	08/07/2020 18:15	168103
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	08/07/2020 18:15	168103
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/07/2020 10:42	168114
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	08/21/2020 0:00	R280923
Radium-228	*	0		See attached	pci/L	1	08/21/2020 0:00	R280923



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 20071643-008
 Matrix: GROUNDWATER

Work Order: 20071643
 Report Date: 27-Aug-2020

Client Sample ID: AP-7

Collection Date: 08/05/2020 14:20

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		496.50	ft	1	08/05/2020 14:20	R280186
Depth to water	*	-5.00		8.70	ft	1	08/05/2020 14:20	R280186
Depth to water from measuring point	*	0		11.36	ft	1	08/05/2020 14:20	R280186
Elevation of groundwater surface	*	0		527.66	ft	1	08/05/2020 14:20	R280186
Measuring Point Elevation	*	0		539.02	ft	1	08/05/2020 14:20	R280186
Measuring Point Height Above Land Surface	*	0		2.66	ft	1	08/05/2020 14:20	R280186
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		56.5	°F	1	08/05/2020 14:20	R280186
SW-846 9040B								
pH, Field	*	1.00		7.30		1	08/05/2020 14:20	R280186
SW-846 9050A								
Spec. Conductance, Field	*	1.00		796	µmhos/cm @25C	1	08/05/2020 14:20	R280186
STANDARD METHODS 2540 C (TOTAL) 1997								
Total Dissolved Solids	NELAP	20		444	mg/L	1	08/06/2020 14:27	R280107
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		< 10	mg/L	1	08/07/2020 18:25	R280200
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.62	mg/L	1	08/11/2020 12:49	R280327
SW-846 9251 (TOTAL)								
Chloride	NELAP	40		78	mg/L	10	08/07/2020 18:30	R280201
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		0.0429	mg/L	1	08/11/2020 17:36	168102
Barium	NELAP	0.0025		0.167	mg/L	1	08/11/2020 17:36	168102
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	08/11/2020 17:36	168102
Boron	NELAP	0.0200		0.452	mg/L	1	08/11/2020 17:36	168102
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/11/2020 17:36	168102
Calcium	NELAP	0.100		63.6	mg/L	1	08/11/2020 17:36	168102
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/11/2020 17:36	168102
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	08/11/2020 17:36	168102
Lead	NELAP	0.0150		< 0.0150	mg/L	1	08/11/2020 17:36	168102
Lithium	NELAP	0.0050		0.0137	mg/L	1	08/11/2020 17:36	168102
Molybdenum	NELAP	0.0100		0.0106	mg/L	1	08/11/2020 17:36	168102
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	08/07/2020 18:23	168103
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	08/07/2020 18:23	168103
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	08/07/2020 18:23	168103
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/07/2020 10:45	168114
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	08/21/2020 0:00	R280923
Radium-228	*	0		See attached	pci/L	1	08/21/2020 0:00	R280923



Receiving Check List

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

Client: City Water, Light & Power

Work Order: 20071643

Client Project: Ash Pond Monitoring Wells

Report Date: 27-Aug-2020

Carrier: Jordan Evans

Received By: KMT

Completed by:

Amber Dilallo

Reviewed by:

Elizabeth A. Hurley

On:

On:

06-Aug-2020

06-Aug-2020

Amber M. Dilallo

Elizabeth A. Hurley

Pages to follow:

Chain of custody

1

Extra pages included

28

- | | | | | |
|---|---|---|--------------------------------------|----------------------------------|
| Shipping container/cooler in good condition? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> | Temp °C 2.4 |
| Type of thermal preservation? | None <input type="checkbox"/> | Ice <input checked="" 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 checked="" type="checkbox"/> | Lab <input type="checkbox"/> | NA <input 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.

CHAIN OF CUSTODY

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

Client: City Water, Light & Power
 Address: 201 E. Lake Shore Drive
 City/State/Zip: Springfield IL 62712
 Contact: Eric Staley Phone: (217) 757-8610
 Email: eric.staley@cwlp.com Fax:

Samples on: ICE BLUE ICE NO ICE 2.9 °C 663
 Preserved in: LAB FIELD **FOR LAB USE ONLY**
 LAB NOTES:
*not yet installed per Eric Staley, RW 8/1/20, RW 8/1/20

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 Permit on file

Client Comments:
 *elevations, pH, conductivity, temperature
 **Sb Se Tl (ICPMS) As Ba Be B Cd Ca Cr Co Pb Li Hg Mo

PROJECT NAME/NUMBER: Ash Pond Monitoring Wells
 SAMPLE COLLECTOR'S NAME: Jordan Evans

RESULTS REQUESTED: Standard 1-2 Day (100% Surcharge) Other _____
 3 Day (50% Surcharge)
 BILLING INSTRUCTIONS:

# and Type of Containers		INDICATE ANALYSIS REQUESTED																		
UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228							
2	2								✓	✓	✓	✓	✓							
2	2								✓	✓	✓	✓	✓							
2	2								✓	✓	✓	✓	✓							
2	2								✓	✓	✓	✓	✓							
2	2								✓	✓	✓	✓	✓							
2	2								✓	✓	✓	✓	✓							
2	2								✓	✓	✓	✓	✓							
2	2								✓	✓	✓	✓	✓							
2	2								✓	✓	✓	✓	✓							
2	2								✓	✓	✓	✓	✓							

Lab Use Only	Sample ID	Date/Time Sampled	Matrix
<u>20071643</u> 001	RW-3	<u>8/5/20 1100</u>	Groundwater
002	AP-1	<u>8/5/20 1253</u>	Groundwater
003	AP-2	<u>8/5/20 1310</u>	Groundwater
004	AP-3	<u>8/5/20 1326</u>	Groundwater
005	AP-4	<u>8/6/20 910</u>	Groundwater
006	AP-5	<u>8/6/20 925</u>	Groundwater
007	AP-6 (GP6) AP-6	<u>8/5/20 1230</u>	Groundwater
008	AP-7 (GP-2) AP-7	<u>8/5/20 1420</u>	Groundwater
009	AP-8 *		Groundwater
010	AP-9 *		Groundwater
011	AP-10 *		Groundwater

Relinquished By	Date/Time	Received By	Date/Time
<u>[Signature]</u>	<u>8/6/20 1210</u>	<u>[Signature]</u>	<u>8/6/20 1210</u>

*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

TEKLAB, INC. FIELD INFORMATION FORM

SITE NAME: CWLP

SAMPLE COLLECTOR: Jordan Evans

QUARTER/YEAR: Q3 2020

SAMPLING POINT: RW-3

Well Dry

PURGE DATE	START PURGE TIME	ELAPSED HOURS	WATER VOL. IN CASING (gallons)	ACTUAL VOL. PURGED (gallons)
8/5/20	1100		5.4	6.0

	YES	NO
Micro Purge		X
Purge Equipment Dedicated		X
Sampling Equipment Dedicated		X

A	Bailer – Teflon	H	Peristaltic Pump
C	Bailer – Polypropylene/Polyethylene	I	Submersible Pump
F	Bailer – Stainless Steel	L	Bladder Pump
Purging Device		I	Sampling Device
			I

A	Teflon	D	Polypropylene
B	Tygon	E	Polyethylene
C	Rope X (Specify)		
Purging Tubing		A	Sampling Tubing
			A

A	Inline Disposable	B	Pressure
Field Filtering	YES	NO	Filtering Device Used
			A

Depth to Water (ft)	11.01	Well Depth (ft)	44.01
----------------------------	-------	------------------------	-------

GALLONS	pH (std)	CONDUCTIVITY (um/cm)	TEMP (C)
1.0	7.33	642	13.9
2.0	7.32	650	13.7
3.0	7.29	650	13.8

APPEARANCE	SL cloudy	ODOR	none
COLOR	none	TURBIDITY	mod

Comments: _____

TEKLAB, INC. FIELD INFORMATION FORM

SITE NAME: CWLP

SAMPLE COLLECTOR: Jordan Evans

QUARTER/YEAR: Q3 2020

SAMPLING POINT: AP-1

Well Dry

PURGE DATE	START PURGE TIME	ELAPSED HOURS	WATER VOL. IN CASING (gallons)	ACTUAL VOL. PURGED (gallons)
8/5/20	1253		3.3	7.0

	YES	NO
Micro Purge		X
Purge Equipment Dedicated		X
Sampling Equipment Dedicated		X

A	Bailer – Teflon	H	Peristaltic Pump
C	Bailer – Polypropylene/Polyethylene	I	Submersible Pump
F	Bailer – Stainless Steel	L	Bladder Pump
Purging Device		I	Sampling Device

A	Teflon	D	Polypropylene
B	Tygon	E	Polyethylene
C	Rope X (Specify)		
Purging Tubing		A	Sampling Tubing

A	Inline Disposable	B	Pressure
Field Filtering	YES	NO	Filtering Device Used

Depth to Water (ft)	10.85	Well Depth (ft)	31.08
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GALLONS	pH (std)	CONDUCTIVITY (um/cm)	TEMP (C)
2.0	6.82	1549	14.0
3.0	6.80	1558	14.0
4.0	6.80	1559	14.0

APPEARANCE	clear	ODOR	none
COLOR	none	TURBIDITY	none

Comments: _____

TEKLAB, INC. FIELD INFORMATION FORM

SITE NAME: CWLP

SAMPLE COLLECTOR: Jordan Evans

QUARTER/YEAR: Q3 2020

SAMPLING POINT: AP-2

Well Dry

PURGE DATE	START PURGE TIME	ELAPSED HOURS	WATER VOL. IN CASING (gallons)	ACTUAL VOL. PURGED (gallons)
8/5/20	1318		2.1	6.0

	YES	NO
Micro Purge		X
Purge Equipment Dedicated		X
Sampling Equipment Dedicated		X

A	Bailer – Teflon	H	Peristaltic Pump
C	Bailer – Polypropylene/Polyethylene	I	Submersible Pump
F	Bailer – Stainless Steel	L	Bladder Pump
Purging Device		I	Sampling Device
			I

A	Teflon	D	Polypropylene
B	Tygon	E	Polyethylene
C	Rope X (Specify)		
Purging Tubing		A	Sampling Tubing
			A

A	Inline Disposable	B	Pressure
Field Filtering	YES	NO	Filtering Device Used
			~

Depth to Water (ft)	8.02	Well Depth (ft)	21.33
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GALLONS	pH (std)	CONDUCTIVITY (um/cm)	TEMP (C)
2.0	6.69	1504	14.8
3.0	6.66	1509	14.7
4.0	6.66	1527	14.7

APPEARANCE	Clear	ODOR	None
COLOR	None	TURBIDITY	None

Comments: _____

TEKLAB, INC. FIELD INFORMATION FORM

SITE NAME: CWLP

SAMPLE COLLECTOR: Jordan Evans

QUARTER/YEAR: Q3 2020

SAMPLING POINT: AP-3

Well Dry

PURGE DATE	START PURGE TIME	ELAPSED HOURS	WATER VOL. IN CASING (gallons)	ACTUAL VOL. PURGED (gallons)
8/5/20	1326		1.9	5.0

	YES	NO
Micro Purge		X
Purge Equipment Dedicated		X
Sampling Equipment Dedicated		X

A	Bailer – Teflon	H	Peristaltic Pump
C	Bailer – Polypropylene/Polyethylene	I	Submersible Pump
F	Bailer – Stainless Steel	L	Bladder Pump
Purging Device		I	Sampling Device
			I

A	Teflon	D	Polypropylene
B	Tygon	E	Polyethylene
C	Rope X (Specify)		
Purging Tubing		A	Sampling Tubing
			A

A	Inline Disposable	B	Pressure
Field Filtering	YES	NO	Filtering Device Used
			—

Depth to Water (ft)	9.55	Well Depth (ft)	20.95
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GALLONS	pH (std)	CONDUCTIVITY (um/cm)	TEMP (C)
1.0	6.81	992	15.5
2.0	6.81	995	15.6
3.0	6.78	998	15.7

APPEARANCE	clear	ODOR	none
COLOR	none	TURBIDITY	none

Comments: _____

TEKLAB, INC. FIELD INFORMATION FORM

SITE NAME: CWLP

SAMPLE COLLECTOR: Jordan Evans

QUARTER/YEAR: Q3 2020

SAMPLING POINT: AP-4

Well Dry

PURGE DATE	START PURGE TIME	ELAPSED HOURS	WATER VOL. IN CASING (gallons)	ACTUAL VOL. PURGED (gallons)
8/16/20	9:10		8.4	8.0

	YES	NO
Micro Purge		X
Purge Equipment Dedicated		X
Sampling Equipment Dedicated		X

A	Bailer – Teflon	H	Peristaltic Pump
C	Bailer – Polypropylene/Polyethylene	I	Submersible Pump
F	Bailer – Stainless Steel	L	Bladder Pump
Purging Device		I	Sampling Device
			I

A	Teflon	D	Polypropylene
B	Tygon	E	Polyethylene
C	Rope X (Specify)		
Purging Tubing		A	Sampling Tubing
			A

A	Inline Disposable	B	Pressure
Field Filtering	YES	<u>NO</u>	Filtering Device Used
			—

Depth to Water (ft)	8.92	Well Depth (ft)	160.41
---------------------	------	-----------------	--------

GALLONS	pH (std)	CONDUCTIVITY (um/cm)	TEMP (C)
4.0	6.64	813	15.8
5.0	6.66	812	15.8
6.0	6.67	812	15.8

APPEARANCE	Clear	ODOR	None
COLOR	None	TURBIDITY	None

Comments: _____

TEKLAB, INC. FIELD INFORMATION FORM

SITE NAME: CWLP

SAMPLE COLLECTOR: Jordan Evans

QUARTER/YEAR: Q3 2020

SAMPLING POINT: AP-5

Well Dry

PURGE DATE	START PURGE TIME	ELAPSED HOURS	WATER VOL. IN CASING (gallons)	ACTUAL VOL. PURGED (gallons)
8/6/20	935		2.2	7.0

	YES	NO
Micro Purge		X
Purge Equipment Dedicated		X
Sampling Equipment Dedicated		X

A	Bailer – Teflon	H	Peristaltic Pump
C	Bailer – Polypropylene/Polyethylene	I	Submersible Pump
F	Bailer – Stainless Steel	L	Bladder Pump
Purging Device		I	Sampling Device
			I

A	Teflon	D	Polypropylene
B	Tygon	E	Polyethylene
C	Rope X (Specify)		
Purging Tubing		A	Sampling Tubing
			A

A	Inline Disposable	B	Pressure
Field Filtering	YES	NO	Filtering Device Used
			—

Depth to Water (ft)	17.83	Well Depth (ft)	31.27
---------------------	-------	-----------------	-------

GALLONS	pH (std)	CONDUCTIVITY (um/cm)	TEMP (C)
2.0	7.37	541	12.7
3.0	7.35	549	12.6
4.0	7.32	558	12.7

APPEARANCE	cloudy	ODOR	none
COLOR	LT Brown	TURBIDITY	mod

Comments: _____

TEKLAB, INC. FIELD INFORMATION FORM

SITE NAME: CWLP

SAMPLE COLLECTOR: Jordan Evans

QUARTER/YEAR: Q3 2020

SAMPLING POINT: AP6 (GP6)

Well Dry

PURGE DATE	START PURGE TIME	ELAPSED HOURS	WATER VOL. IN CASING (gallons)	ACTUAL VOL. PURGED (gallons)
8/5/20	1230		4.9	6.0

	YES	NO
Micro Purge		X
Purge Equipment Dedicated		X
Sampling Equipment Dedicated		X

A	Bailer – Teflon	H	Peristaltic Pump
C	Bailer – Polypropylene/Polyethylene	I	Submersible Pump
F	Bailer – Stainless Steel	L	Bladder Pump
Purging Device		I	Sampling Device
			I

A	Teflon	D	Polypropylene
B	Tygon	E	Polyethylene
C	Rope X (Specify)		
Purging Tubing		A	Sampling Tubing
			A

A	Inline Disposable	B	Pressure
Field Filtering	YES	<u>NO</u>	Filtering Device Used
			—

Depth to Water (ft)	9.43	Well Depth (ft)	39.62
----------------------------	------	------------------------	-------

GALLONS	pH (std)	CONDUCTIVITY (um/cm)	TEMP (C)
1.0	7.59	498	13.9
2.0	7.48	490	13.6
3.0	7.46	478	13.8
4.0	7.45	469	14.0

APPEARANCE	SL Cloudy	ODOR	None
COLOR	None	TURBIDITY	Mod

Comments: _____

TEKLAB, INC. FIELD INFORMATION FORM

SITE NAME: CWLP

SAMPLE COLLECTOR: Jordan Evans

QUARTER/YEAR: Q3 2020

SAMPLING POINT: AP 7

Well Dry

PURGE DATE	START PURGE TIME	ELAPSED HOURS	WATER VOL. IN CASING (gallons)	ACTUAL VOL. PURGED (gallons)
8/5/20	1420			6.0

	YES	NO
Micro Purge		X
Purge Equipment Dedicated		X
Sampling Equipment Dedicated		X

A	Bailer – Teflon	H	Peristaltic Pump
C	Bailer – Polypropylene/Polyethylene	I	Submersible Pump
F	Bailer – Stainless Steel	L	Bladder Pump
Purging Device		I	Sampling Device
			I

A	Teflon	D	Polypropylene
B	Tygon	E	Polyethylene
C	Rope X (Specify)		
Purging Tubing		A	Sampling Tubing
			A

A	Inline Disposable	B	Pressure
Field Filtering	YES	NO	Filtering Device Used
			—

Depth to Water (ft)	11.36	Well Depth (ft)	42.52
---------------------	-------	-----------------	-------

GALLONS	pH (std)	CONDUCTIVITY (um/cm)	TEMP (C)
2.0	7.30	809	13.7
3.0	7.30	799	13.2
4.0	7.30	796	13.6

APPEARANCE	Clear	ODOR	None
COLOR	None	TURBIDITY	None

Comments: _____

August 27, 2020

Ms. Shelly Hennessy
Teklab Inc.
5445 Horseshoe Lake Road
Collinsville, IL 62234

RE: Project: 20071643
Pace Project No.: 30376688

Dear Ms. Hennessy:

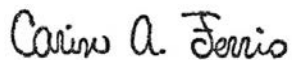
Enclosed are the analytical results for sample(s) received by the laboratory on August 10, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Carin Ferris
carin.ferris@pacelabs.com
724-850-5615
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 20071643
Pace Project No.: 30376688

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 9526

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 20071643

Pace Project No.: 30376688

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30376688001	20071643-001	Water	08/05/20 11:00	08/10/20 09:15
30376688002	20071643-002	Water	08/05/20 12:53	08/10/20 09:15
30376688003	20071643-003	Water	08/05/20 13:10	08/10/20 09:15
30376688004	20071643-004	Water	08/05/20 13:26	08/10/20 09:15
30376688005	20071643-005	Water	08/06/20 09:10	08/10/20 09:15
30376688006	20071643-006	Water	08/06/20 09:35	08/10/20 09:15
30376688007	20071643-007	Water	08/05/20 12:30	08/10/20 09:15
30376688008	20071643-008	Water	08/05/20 14:20	08/10/20 09:15

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 20071643
Pace Project No.: 30376688

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30376688001	20071643-001	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
30376688002	20071643-002	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
30376688003	20071643-003	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
30376688004	20071643-004	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
30376688005	20071643-005	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
30376688006	20071643-006	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
30376688007	20071643-007	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
30376688008	20071643-008	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 20071643
Pace Project No.: 30376688

Method: EPA 903.1
Description: 903.1 Radium 226
Client: Teklab Inc.
Date: August 27, 2020

General Information:

8 samples were analyzed for EPA 903.1 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 20071643
Pace Project No.: 30376688

Method: EPA 904.0
Description: 904.0 Radium 228
Client: Teklab Inc.
Date: August 27, 2020

General Information:

8 samples were analyzed for EPA 904.0 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 20071643

Pace Project No.: 30376688

Method: Total Radium Calculation

Description: Total Radium 228+226

Client: Teklab Inc.

Date: August 27, 2020

General Information:

8 samples were analyzed for Total Radium Calculation by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 20071643

Pace Project No.: 30376688

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: 20071643-001 Lab ID: 30376688001 Collected: 08/05/20 11:00 Received: 08/10/20 09:15 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	1.16 ± 0.770 (0.349) C:NA T:87%	pCi/L	08/26/20 16:16	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	2.65 ± 0.966 (1.41) C:71% T:89%	pCi/L	08/21/20 11:55	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	3.81 ± 1.74 (1.76)	pCi/L	08/27/20 09:35	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 20071643

Pace Project No.: 30376688

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: 20071643-002 Lab ID: 30376688002 Collected: 08/05/20 12:53 Received: 08/10/20 09:15 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.964 ± 0.578 (0.765) C:NA T:89%	pCi/L	08/26/20 16:16	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	1.90 ± 0.752 (1.18) C:65% T:88%	pCi/L	08/21/20 15:15	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	2.86 ± 1.33 (1.95)	pCi/L	08/27/20 09:35	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 20071643

Pace Project No.: 30376688

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: 20071643-003 Lab ID: 30376688003 Collected: 08/05/20 13:10 Received: 08/10/20 09:15 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	-0.102 ± 0.246 (0.615) C:NA T:92%	pCi/L	08/26/20 16:16	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	1.73 ± 0.636 (0.972) C:70% T:85%	pCi/L	08/21/20 15:15	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.73 ± 0.882 (1.59)	pCi/L	08/27/20 09:35	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 20071643

Pace Project No.: 30376688

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: 20071643-004 Lab ID: 30376688004 Collected: 08/05/20 13:26 Received: 08/10/20 09:15 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.139 ± 0.273 (0.499) C:NA T:97%	pCi/L	08/26/20 16:16	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.0462 ± 0.381 (0.875) C:71% T:86%	pCi/L	08/21/20 15:15	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.185 ± 0.654 (1.37)	pCi/L	08/27/20 09:35	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 20071643

Pace Project No.: 30376688

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: 20071643-005 Lab ID: 30376688005 Collected: 08/06/20 09:10 Received: 08/10/20 09:15 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.763 ± 0.572 (0.818) C:NA T:90%	pCi/L	08/26/20 16:16	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	1.20 ± 0.539 (0.909) C:67% T:86%	pCi/L	08/21/20 15:15	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.96 ± 1.11 (1.73)	pCi/L	08/27/20 09:35	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 20071643

Pace Project No.: 30376688

Sample: 20071643-006 **Lab ID: 30376688006** Collected: 08/06/20 09:35 Received: 08/10/20 09:15 Matrix: Water

PWS: Site ID: Sample Type:

Comments: • Upon receipt at the laboratory, 2.5 mls of nitric acid were added to the sample to meet the sample preservation requirement of pH <2 for radiochemistry analysis.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	1.61 ± 1.00 (0.986) C:NA T:87%	pCi/L	08/26/20 16:16	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	4.26 ± 1.55 (2.24) C:69% T:59%	pCi/L	08/21/20 15:15	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	5.87 ± 2.55 (3.23)	pCi/L	08/27/20 09:35	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 20071643

Pace Project No.: 30376688

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: 20071643-007 Lab ID: 30376688007 Collected: 08/05/20 12:30 Received: 08/10/20 09:15 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.440 ± 0.671 (1.08) C:NA T:85%	pCi/L	08/26/20 16:16	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	2.59 ± 1.25 (2.26) C:72% T:80%	pCi/L	08/21/20 15:20	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	3.03 ± 1.92 (3.34)	pCi/L	08/27/20 09:35	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 20071643

Pace Project No.: 30376688

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: 20071643-008 Lab ID: 30376688008 Collected: 08/05/20 14:20 Received: 08/10/20 09:15 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.0480 ± 0.312 (0.630) C:NA T:94%	pCi/L	08/26/20 16:29	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	1.02 ± 0.550 (1.02) C:70% T:87%	pCi/L	08/21/20 15:20	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.07 ± 0.862 (1.65)	pCi/L	08/27/20 09:35	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 20071643

Pace Project No.: 30376688

QC Batch: 409045

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30376688001, 30376688002, 30376688003, 30376688004, 30376688005, 30376688006, 30376688007, 30376688008

METHOD BLANK: 1979797

Matrix: Water

Associated Lab Samples: 30376688001, 30376688002, 30376688003, 30376688004, 30376688005, 30376688006, 30376688007, 30376688008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.985 ± 0.512 (0.905) C:74% T:73%	pCi/L	08/21/20 11:29	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 20071643

Pace Project No.: 30376688

QC Batch: 409046

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30376688001, 30376688002, 30376688003, 30376688004, 30376688005, 30376688006, 30376688007, 30376688008

METHOD BLANK: 1979799

Matrix: Water

Associated Lab Samples: 30376688001, 30376688002, 30376688003, 30376688004, 30376688005, 30376688006, 30376688007, 30376688008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0781 ± 0.306 (0.586) C:NA T:91%	pCi/L	08/26/20 15:30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

QUALIFIERS

Project: 20071643
Pace Project No.: 30376688

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.

Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

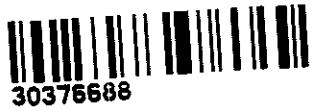
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

WO#: 30376688



TEKLAB, INC. Chain of Custody

ake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES NO With: Ice Blue Ice Preserved in: Lab Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: Sampler: QC Level:

Project#

Comments: **Please Issue reports and invoices via email only**

Please analyze for Radium (226, 228, and combined) by method EPA903.0/904.0 on your standard turnaround time.

Batch QC and CCR EDD are required with the report. Receipt summary requested.

Changes to analysis/methods must be approved by Teklab, Inc.

Contact:
Requested Due Date:

Email:
Billing/PO:

Phone:

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226	Radium 228	Combined Radium											
001	20071643-001	8/5/20 11:00	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
002	20071643-002	8/5/20 12:53	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
003	20071643-003	8/5/20 13:10	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
004	20071643-004	8/5/20 13:26	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
005	20071643-005	8/6/20 9:10	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
006	20071643-006	8/6/20 9:25 0935	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
007	20071643-007	8/5/20 12:30 TE Sam 8/6/20	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
008	20071643-008	8/5/20 14:20	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			Unpres	Aqueous	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			Unpres	Aqueous	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			Unpres	Aqueous	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*Relinquished By	Date/Time	Received By	Date/Time
<i>[Signature]</i> FedEx	8/6/20 1700	<i>[Signature]</i>	8/10/20 0915

Resp. to 18 parts, 50 ppb, #5 CMLP - 30122

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization, and proprietary rights, Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

Pittsburgh Lab Sample Condition Upon Receipt



Client Name: Teklab

Project # 30376688

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: 1821 4511 5740

Label JSM
LIMS Login JSM

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Thermometer Used _____ Type of Ice: Wet Blue None

Cooler Temperature _____ Observed Temp _____ °C Correction Factor: _____ °C Final Temp: _____ °C

Temp should be above freezing to 6°C

Comments:	Yes	No	N/A	pH paper Lot#	Date and Initials of person examining contents:
				<u>10DS191</u>	<u>JSM 8/11/2020</u>
Chain of Custody Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Chain of Custody Filled Out:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Chain of Custody Relinquished:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Sample Labels match COC: -Includes date/time/ID Matrix: <u>WT</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Short Hold Time Analysis (<72hr remaining):	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Rush Turn Around Time Requested:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Sufficient Volume:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Correct Containers Used: -Pace Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Containers Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Orthophosphate field filtered	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Hex Cr Aqueous sample field filtered	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Organic Samples checked for dechlorination:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Filtered volume received for Dissolved tests	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
All containers have been checked for preservation. exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
All containers meet method preservation requirements.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed <u>JSM</u>	Date/time of preservation <u>8/11/2020 0945</u>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Lot # of added preservative <u>DL20-0730</u>	
Headspace in VOA Vials (>6mm):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Trip Blank Present:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Trip Blank Custody Seals Present	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Rad Samples Screened < 0.5 mrem/hr	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed:	Date:

PHK 2 2.5 ml HNO₃ added to sample 20071643-008

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

A check in this box indicates that additional information has been stored in ereports.

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)
*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

September 28, 2021

Eric Staley
City Water, Light & Power
201 E. Lake Shore Drive
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615



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

RE: Ash Pond Monitoring Wells

WorkOrder: 21080889

Dear Eric Staley:

TEKLAB, INC received 17 samples on 8/26/2021 8:05:00 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,



Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com



Report Contents

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

Client: City Water, Light & Power

Work Order: 21080889

Client Project: Ash Pond Monitoring Wells

Report Date: 28-Sep-21

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	28
Chain of Custody	Appended

Client: City Water, Light & Power

Work Order: 21080889

Client Project: Ash Pond Monitoring Wells

Report Date: 28-Sep-21

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.

LCS D 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: City Water, Light & Power

Work Order: 21080889

Client Project: Ash Pond Monitoring Wells

Report Date: 28-Sep-21

Qualifiers

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



Case Narrative

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

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 21080889
Report Date: 28-Sep-21

Cooler Receipt Temp: 2.8 °C

An employee of Teklab, Inc. collected the sample(s).

Radium-226 and Radium-228 analysis was performed by Pace Analytical Services, LLC. See attached report for results.

Fluoride analysis was not analyzed due to lab error. SAH 9/28/21

Locations

Collinsville

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

Collinsville Air

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

Springfield

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

Chicago

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

Kansas City

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



Accreditations

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

Client: City Water, Light & Power

Work Order: 21080889

Client Project: Ash Pond Monitoring Wells

Report Date: 28-Sep-21

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2022	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2022	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2022	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2022	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2022	Collinsville
Arkansas	ADEQ	88-0966		3/14/2022	Collinsville
Illinois	IDPH	17584		5/31/2021	Collinsville
Kentucky	UST	0073		1/31/2022	Collinsville
Missouri	MDNR	00930		5/31/2021	Collinsville
Missouri	MDNR	930		1/31/2022	Collinsville



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21080889-001
 Matrix: GROUNDWATER

Work Order: 21080889
 Report Date: 28-Sep-21

Client Sample ID: AP-1

Collection Date: 08/24/2021 10:58

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		504.29	ft	1	08/24/2021 10:58	R298344
Depth to water	*	-5.00		8.58	ft	1	08/24/2021 10:58	R298344
Depth to water from measuring point	*	0		10.85	ft	1	08/24/2021 10:58	R298344
Elevation of groundwater surface	*	0		524.52	ft	1	08/24/2021 10:58	R298344
Measuring Point Elevation	*	0		535.37	ft	1	08/24/2021 10:58	R298344
Measuring Point Height Above Land Surface	*	0		2.27	ft	1	08/24/2021 10:58	R298344
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		16	NTU	1	08/24/2021 10:58	R298344
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		56.5	°F	1	08/24/2021 10:58	R298344
SW-846 9040B								
pH, Field	*	1.00		6.73		1	08/24/2021 10:58	R298344
SW-846 9050A								
Spec. Conductance, Field	*	1.00		1240	µmhos/cm @25C	1	08/24/2021 10:58	R298344
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		1420	mg/L	1	08/27/2021 14:25	R298340
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		734	mg/L	20	08/26/2021 18:09	R297211
SW-846 9251 (TOTAL)								
Chloride	NELAP	2		55	mg/L	2	08/26/2021 18:04	R297212
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	09/01/2021 13:15	181352
Barium	NELAP	0.0025		0.204	mg/L	1	09/01/2021 13:15	181352
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	09/01/2021 13:15	181352
Boron	NELAP	0.200		22.0	mg/L	10	09/02/2021 14:28	181352
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	09/01/2021 13:15	181352
Calcium	NELAP	0.100		233	mg/L	1	09/01/2021 13:15	181352
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	09/01/2021 13:15	181352
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	09/01/2021 13:15	181352
Lead	NELAP	0.0150		< 0.0150	mg/L	1	09/01/2021 13:15	181352
Lithium	NELAP	0.0050		0.0091	mg/L	1	09/01/2021 13:15	181352
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	09/01/2021 13:15	181352
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	09/08/2021 1:56	181353
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	09/08/2021 1:56	181353
Thallium	NELAP	0.0020		0.0031	mg/L	5	09/02/2021 21:44	181353
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	09/02/2021 12:03	181421
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	09/21/2021 0:00	R299386
Radium-228	*	0		See attached	pci/L	1	09/21/2021 0:00	R299386



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21080889-002
 Matrix: GROUNDWATER

Work Order: 21080889
 Report Date: 28-Sep-21

Client Sample ID: AP-2
 Collection Date: 08/24/2021 9:57

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		514.77	ft	1	08/24/2021 9:57	R298344
Depth to water	*	-5.00		5.63	ft	1	08/24/2021 9:57	R298344
Depth to water from measuring point	*	0		8.13	ft	1	08/24/2021 9:57	R298344
Elevation of groundwater surface	*	0		527.97	ft	1	08/24/2021 9:57	R298344
Measuring Point Elevation	*	0		536.10	ft	1	08/24/2021 9:57	R298344
Measuring Point Height Above Land Surface	*	0		2.50	ft	1	08/24/2021 9:57	R298344
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		10	NTU	1	08/24/2021 9:57	R298344
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		60.3	°F	1	08/24/2021 9:57	R298344
SW-846 9040B								
pH, Field	*	1.00		6.40		1	08/24/2021 9:57	R298344
SW-846 9050A								
Spec. Conductance, Field	*	1.00		1860	µmhos/cm @25C	1	08/24/2021 9:57	R298344
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		1460	mg/L	1	08/27/2021 14:26	R298340
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		707	mg/L	20	08/26/2021 18:17	R297211
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		19	mg/L	1	08/26/2021 18:12	R297212
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	09/01/2021 13:19	181352
Barium	NELAP	0.0025		0.0944	mg/L	1	09/01/2021 13:19	181352
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	09/01/2021 13:19	181352
Boron	NELAP	0.0200		4.73	mg/L	1	09/02/2021 14:32	181352
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	09/01/2021 13:19	181352
Calcium	NELAP	0.100		294	mg/L	1	09/01/2021 13:19	181352
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	09/01/2021 13:19	181352
Cobalt	NELAP	0.0050		0.0131	mg/L	1	09/01/2021 13:19	181352
Lead	NELAP	0.0150		< 0.0150	mg/L	1	09/01/2021 13:19	181352
Lithium	NELAP	0.0050		0.0068	mg/L	1	09/01/2021 13:19	181352
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	09/01/2021 13:19	181352
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	09/08/2021 2:04	181353
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	09/08/2021 2:04	181353
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	09/02/2021 21:51	181353
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	09/02/2021 12:10	181421
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	09/21/2021 0:00	R299386
Radium-228	*	0		See attached	pci/L	1	09/21/2021 0:00	R299386



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21080889-003
 Matrix: GROUNDWATER

Work Order: 21080889
 Report Date: 28-Sep-21

Client Sample ID: AP-3
 Collection Date: 08/24/2021 9:37

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		514.45	ft	1	08/24/2021 9:37	R298344
Depth to water	*	-5.00		7.93	ft	1	08/24/2021 9:37	R298344
Depth to water from measuring point	*	0		9.63	ft	1	08/24/2021 9:37	R298344
Elevation of groundwater surface	*	0		525.77	ft	1	08/24/2021 9:37	R298344
Measuring Point Elevation	*	0		535.40	ft	1	08/24/2021 9:37	R298344
Measuring Point Height Above Land Surface	*	0		1.70	ft	1	08/24/2021 9:37	R298344
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		6.6	NTU	1	08/24/2021 9:37	R298344
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		60.8	°F	1	08/24/2021 9:37	R298344
SW-846 9040B								
pH, Field	*	1.00		6.52		1	08/24/2021 9:37	R298344
SW-846 9050A								
Spec. Conductance, Field	*	1.00		1150	µmhos/cm @25C	1	08/24/2021 9:37	R298344
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		824	mg/L	1	08/27/2021 14:26	R298340
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		371	mg/L	10	08/26/2021 18:25	R297211
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		36	mg/L	1	08/26/2021 18:20	R297212
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	09/01/2021 14:31	181352
Barium	NELAP	0.0025		0.0948	mg/L	1	09/01/2021 14:31	181352
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	09/01/2021 14:31	181352
Boron	NELAP	0.200		17.3	mg/L	10	09/02/2021 14:24	181352
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	09/01/2021 14:31	181352
Calcium	NELAP	0.100		148	mg/L	1	09/01/2021 14:31	181352
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	09/01/2021 14:31	181352
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	09/01/2021 14:31	181352
Lead	NELAP	0.0150		< 0.0150	mg/L	1	09/01/2021 14:31	181352
Lithium	NELAP	0.0050		< 0.0050	mg/L	1	09/01/2021 14:31	181352
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	09/01/2021 14:31	181352
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	09/08/2021 2:13	181353
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	09/08/2021 2:13	181353
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	09/02/2021 21:58	181353
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	09/02/2021 12:13	181421
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	09/21/2021 0:00	R299386
Radium-228	*	0		See attached	pci/L	1	09/21/2021 0:00	R299386



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21080889-004
 Matrix: GROUNDWATER

Work Order: 21080889
 Report Date: 28-Sep-21

Client Sample ID: AP-4
 Collection Date: 08/24/2021 16:07

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		496.65	ft	1	08/24/2021 16:07	R298344
Depth to water	*	-5.00		5.69	ft	1	08/24/2021 16:07	R298344
Depth to water from measuring point	*	0		8.85	ft	1	08/24/2021 16:07	R298344
Elevation of groundwater surface	*	0		548.21	ft	1	08/24/2021 16:07	R298344
Measuring Point Elevation	*	0		557.06	ft	1	08/24/2021 16:07	R298344
Measuring Point Height Above Land Surface	*	0		3.16	ft	1	08/24/2021 16:07	R298344
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		93	NTU	1	08/24/2021 16:07	R298344
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		63.1	°F	1	08/24/2021 16:07	R298344
SW-846 9040B								
pH, Field	*	1.00		6.92		1	08/24/2021 16:07	R298344
SW-846 9050A								
Spec. Conductance, Field	*	1.00		788	µmhos/cm @25C	1	08/24/2021 16:07	R298344
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		494	mg/L	1	08/27/2021 14:26	R298340
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		< 10	mg/L	1	08/30/2021 15:00	R298338
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		14	mg/L	1	08/26/2021 18:28	R297212
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	09/01/2021 14:35	181352
Barium	NELAP	0.0025		0.456	mg/L	1	09/01/2021 14:35	181352
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	09/01/2021 14:35	181352
Boron	NELAP	0.0200		0.0949	mg/L	1	09/02/2021 14:21	181352
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	09/01/2021 14:35	181352
Calcium	NELAP	0.100		126	mg/L	1	09/01/2021 14:35	181352
Chromium	NELAP	0.0050		0.0068	mg/L	1	09/01/2021 14:35	181352
Cobalt	NELAP	0.0050		0.0050	mg/L	1	09/01/2021 14:35	181352
Lead	NELAP	0.0150		< 0.0150	mg/L	1	09/01/2021 14:35	181352
Lithium	NELAP	0.0050		0.0113	mg/L	1	09/01/2021 14:35	181352
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	09/01/2021 14:35	181352
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	09/08/2021 2:22	181353
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	09/08/2021 2:22	181353
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	09/02/2021 22:05	181353
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	09/02/2021 12:15	181421
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	09/21/2021 0:00	R299386
Radium-228	*	0		See attached	pci/L	1	09/21/2021 0:00	R299386



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21080889-005
 Matrix: GROUNDWATER

Work Order: 21080889
 Report Date: 28-Sep-21

Client Sample ID: AP-5

Collection Date: 08/24/2021 16:31

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		552.63	ft	1	08/24/2021 16:31	R298344
Depth to water	*	-5.00		11.89	ft	1	08/24/2021 16:31	R298344
Depth to water from measuring point	*	0		14.19	ft	1	08/24/2021 16:31	R298344
Elevation of groundwater surface	*	0		569.71	ft	1	08/24/2021 16:31	R298344
Measuring Point Elevation	*	0		583.90	ft	1	08/24/2021 16:31	R298344
Measuring Point Height Above Land Surface	*	0		2.30	ft	1	08/24/2021 16:31	R298344
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		5.0	NTU	1	08/24/2021 16:31	R298344
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		63.1	°F	1	08/24/2021 16:31	R298344
SW-846 9040B								
pH, Field	*	1.00		7.08		1	08/24/2021 16:31	R298344
SW-846 9050A								
Spec. Conductance, Field	*	1.00		604	µmhos/cm @25C	1	08/24/2021 16:31	R298344
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		422	mg/L	1	08/27/2021 14:26	R298340
SW-846 9036 (TOTAL)								
Sulfate	NELAP	20		65	mg/L	2	08/26/2021 18:57	R297211
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		5	mg/L	1	08/26/2021 18:52	R297212
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	09/03/2021 9:15	181452
Barium	NELAP	0.0025		0.0473	mg/L	1	09/03/2021 9:15	181452
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	09/03/2021 9:15	181452
Boron	NELAP	0.0200		< 0.0200	mg/L	1	09/03/2021 9:15	181452
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	09/07/2021 12:57	181508
Calcium	NELAP	0.100	S	77.8	mg/L	1	09/03/2021 9:15	181452
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	09/07/2021 12:57	181508
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	09/07/2021 12:57	181508
Lead	NELAP	0.0150		< 0.0150	mg/L	1	09/03/2021 9:15	181452
Lithium	NELAP	0.0050		0.0068	mg/L	1	09/07/2021 12:57	181508
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	09/07/2021 12:57	181508
<i>Matrix spike control limits for Ca are not applicable due to high sample/spike ratio.</i>								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0005		< 0.0005	mg/L	5	09/13/2021 16:56	181668
Selenium	NELAP	0.0005		< 0.0005	mg/L	5	09/13/2021 16:56	181668
Thallium	NELAP	0.0010		0.0019	mg/L	5	09/13/2021 16:56	181668
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	09/02/2021 12:17	181421
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	09/21/2021 0:00	R299386
Radium-228	*	0		See attached	pci/L	1	09/21/2021 0:00	R299386



Laboratory Results

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Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21080889-006
 Matrix: GROUNDWATER

Work Order: 21080889
 Report Date: 28-Sep-21

Client Sample ID: AP-6

Collection Date: 08/24/2021 11:46

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		498.20	ft	1	08/24/2021 11:46	R298344
Depth to water	*	-5.00		6.11	ft	1	08/24/2021 11:46	R298344
Depth to water from measuring point	*	0		8.53	ft	1	08/24/2021 11:46	R298344
Elevation of groundwater surface	*	0		529.29	ft	1	08/24/2021 11:46	R298344
Measuring Point Elevation	*	0		537.82	ft	1	08/24/2021 11:46	R298344
Measuring Point Height Above Land Surface	*	0		2.42	ft	1	08/24/2021 11:46	R298344
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		9.1	NTU	1	08/24/2021 11:46	R298344
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		69.1	°F	1	08/24/2021 11:46	R298344
SW-846 9040B								
pH, Field	*	1.00		7.10		1	08/24/2021 11:46	R298344
SW-846 9050A								
Spec. Conductance, Field	*	1.00		673	µmhos/cm @25C	1	08/24/2021 11:46	R298344
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		396	mg/L	1	08/27/2021 14:27	R298340
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		< 10	mg/L	1	08/26/2021 18:59	R297211
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		34	mg/L	1	08/26/2021 19:00	R297212
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	09/01/2021 14:51	181352
Barium	NELAP	0.0025		0.132	mg/L	1	09/01/2021 14:51	181352
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	09/01/2021 14:51	181352
Boron	NELAP	0.0200		0.275	mg/L	1	09/01/2021 14:51	181352
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	09/01/2021 14:51	181352
Calcium	NELAP	0.100		68.1	mg/L	1	09/01/2021 14:51	181352
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	09/01/2021 14:51	181352
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	09/01/2021 14:51	181352
Lead	NELAP	0.0150		< 0.0150	mg/L	1	09/01/2021 14:51	181352
Lithium	NELAP	0.0050		0.0080	mg/L	1	09/01/2021 14:51	181352
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	09/01/2021 14:51	181352
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	09/08/2021 3:23	181353
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	09/08/2021 3:23	181353
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	09/08/2021 3:23	181353
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	09/02/2021 12:19	181421
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	09/21/2021 0:00	R299386
Radium-228	*	0		See attached	pci/L	1	09/21/2021 0:00	R299386



Laboratory Results

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Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21080889-007
 Matrix: GROUNDWATER

Work Order: 21080889
 Report Date: 28-Sep-21
 Client Sample ID: AP-7
 Collection Date: 08/24/2021 13:05

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		496.50	ft	1	08/24/2021 13:05	R298344
Depth to water	*	-5.00		8.10	ft	1	08/24/2021 13:05	R298344
Depth to water from measuring point	*	0		10.76	ft	1	08/24/2021 13:05	R298344
Elevation of groundwater surface	*	0		528.26	ft	1	08/24/2021 13:05	R298344
Measuring Point Elevation	*	0		539.02	ft	1	08/24/2021 13:05	R298344
Measuring Point Height Above Land Surface	*	0		2.66	ft	1	08/24/2021 13:05	R298344
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		6.8	NTU	1	08/24/2021 13:05	R298344
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		59.4	°F	1	08/24/2021 13:05	R298344
SW-846 9040B								
pH, Field	*	1.00		7.11		1	08/24/2021 13:05	R298344
SW-846 9050A								
Spec. Conductance, Field	*	1.00		700	µmhos/cm @25C	1	08/24/2021 13:05	R298344
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		462	mg/L	1	08/27/2021 14:27	R298340
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		< 10	mg/L	1	08/26/2021 19:02	R297211
SW-846 9251 (TOTAL)								
Chloride	NELAP	2		66	mg/L	2	08/26/2021 19:08	R297212
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	09/02/2021 12:02	181367
Barium	NELAP	0.0025		0.138	mg/L	1	09/02/2021 12:02	181367
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	09/02/2021 12:02	181367
Boron	NELAP	0.0200		0.387	mg/L	1	09/02/2021 12:02	181367
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	09/02/2021 12:02	181367
Calcium	NELAP	0.100		65.0	mg/L	1	09/02/2021 12:02	181367
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	09/02/2021 12:02	181367
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	09/02/2021 12:02	181367
Lead	NELAP	0.0150		< 0.0150	mg/L	1	09/02/2021 12:02	181367
Lithium	NELAP	0.0050		0.0101	mg/L	1	09/02/2021 12:02	181367
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	09/02/2021 12:02	181367
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	09/08/2021 5:42	181368
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	09/08/2021 5:42	181368
Thallium	NELAP	0.0020		0.0026	mg/L	5	09/08/2021 5:42	181368
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	09/02/2021 12:26	181421
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	09/21/2021 0:00	R299386
Radium-228	*	0		See attached	pci/L	1	09/21/2021 0:00	R299386



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21080889-008
 Matrix: GROUNDWATER

Work Order: 21080889
 Report Date: 28-Sep-21

Client Sample ID: AP-8

Collection Date: 08/24/2021 11:28

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		495.08	ft	1	08/24/2021 11:28	R298344
Depth to water	*	-5.00		3.25	ft	1	08/24/2021 11:28	R298344
Depth to water from measuring point	*	0		6.15	ft	1	08/24/2021 11:28	R298344
Elevation of groundwater surface	*	0		531.05	ft	1	08/24/2021 11:28	R298344
Measuring Point Elevation	*	0		537.20	ft	1	08/24/2021 11:28	R298344
Measuring Point Height Above Land Surface	*	0		2.90	ft	1	08/24/2021 11:28	R298344
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		7.8	NTU	1	08/24/2021 11:28	R298344
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		56.8	°F	1	08/24/2021 11:28	R298344
SW-846 9040B								
pH, Field	*	1.00		6.92		1	08/24/2021 11:28	R298344
SW-846 9050A								
Spec. Conductance, Field	*	1.00		766	µmhos/cm @25C	1	08/24/2021 11:28	R298344
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		508	mg/L	1	08/27/2021 14:27	R298340
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		< 10	mg/L	1	08/26/2021 19:10	R297211
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		26	mg/L	1	08/26/2021 19:11	R297212
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		0.0359	mg/L	1	09/02/2021 12:03	181367
Barium	NELAP	0.0025		0.366	mg/L	1	09/02/2021 12:03	181367
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	09/02/2021 12:03	181367
Boron	NELAP	0.0200		0.0887	mg/L	1	09/02/2021 12:03	181367
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	09/02/2021 12:03	181367
Calcium	NELAP	0.100		97.4	mg/L	1	09/02/2021 12:03	181367
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	09/02/2021 12:03	181367
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	09/02/2021 12:03	181367
Lead	NELAP	0.0150		< 0.0150	mg/L	1	09/02/2021 12:03	181367
Lithium	NELAP	0.0050		0.0072	mg/L	1	09/02/2021 12:03	181367
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	09/02/2021 12:03	181367
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	09/08/2021 5:50	181368
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	09/08/2021 5:50	181368
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	09/08/2021 5:50	181368
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	09/02/2021 12:29	181421
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	09/21/2021 0:00	R299386
Radium-228	*	0		See attached	pci/L	1	09/21/2021 0:00	R299386



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21080889-009
 Matrix: GROUNDWATER

Work Order: 21080889
 Report Date: 28-Sep-21

Client Sample ID: AP-9

Collection Date: 08/24/2021 14:48

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		501.80	ft	1	08/24/2021 14:48	R298344
Depth to water	*	-5.00		10.17	ft	1	08/24/2021 14:48	R298344
Depth to water from measuring point	*	0		13.27	ft	1	08/24/2021 14:48	R298344
Elevation of groundwater surface	*	0		527.03	ft	1	08/24/2021 14:48	R298344
Measuring Point Elevation	*	0		540.30	ft	1	08/24/2021 14:48	R298344
Measuring Point Height Above Land Surface	*	0		3.10	ft	1	08/24/2021 14:48	R298344
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		19	NTU	1	08/24/2021 14:48	R298344
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		66.4	°F	1	08/24/2021 14:48	R298344
SW-846 9040B								
pH, Field	*	1.00		6.89		1	08/24/2021 14:48	R298344
SW-846 9050A								
Spec. Conductance, Field	*	1.00		712	µmhos/cm @25C	1	08/24/2021 14:48	R298344
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		434	mg/L	1	08/27/2021 15:09	R298340
SW-846 9036 (DISSOLVED)								
Sulfate	NELAP	10		32	mg/L	1	08/26/2021 20:54	R297211
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		35	mg/L	1	08/26/2021 19:13	R297211
SW-846 9251 (DISSOLVED)								
Chloride	NELAP	1		27	mg/L	1	08/26/2021 20:55	R297212
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		28	mg/L	1	08/26/2021 19:13	R297212
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	09/03/2021 9:18	181474
Boron	NELAP	0.0200		0.0750	mg/L	1	09/03/2021 9:18	181474
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	09/02/2021 12:20	181367
Barium	NELAP	0.0025		0.296	mg/L	1	09/02/2021 12:20	181367
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	09/02/2021 12:20	181367
Boron	NELAP	0.0200		0.0836	mg/L	1	09/02/2021 12:20	181367
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	09/02/2021 12:20	181367
Calcium	NELAP	0.100		77.6	mg/L	1	09/02/2021 12:20	181367
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	09/02/2021 12:20	181367
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	09/02/2021 12:20	181367
Lead	NELAP	0.0150		< 0.0150	mg/L	1	09/02/2021 12:20	181367
Lithium	NELAP	0.0050		0.0054	mg/L	1	09/02/2021 12:20	181367
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	09/02/2021 12:20	181367
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	09/08/2021 5:59	181368
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	09/08/2021 5:59	181368
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	09/08/2021 5:59	181368



Laboratory Results

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

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells
Lab ID: 21080889-009
Matrix: GROUNDWATER

Work Order: 21080889
Report Date: 28-Sep-21
Client Sample ID: AP-9
Collection Date: 08/24/2021 14:48

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	09/02/2021 12:31	181421



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21080889-010
 Matrix: GROUNDWATER

Work Order: 21080889
 Report Date: 28-Sep-21
 Client Sample ID: AP-10
 Collection Date: 08/24/2021 10:40

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		498.89	ft	1	08/24/2021 10:40	R298344
Depth to water	*	-5.00		1.61	ft	1	08/24/2021 10:40	R298344
Depth to water from measuring point	*	0		4.71	ft	1	08/24/2021 10:40	R298344
Elevation of groundwater surface	*	0		532.79	ft	1	08/24/2021 10:40	R298344
Measuring Point Elevation	*	0		537.50	ft	1	08/24/2021 10:40	R298344
Measuring Point Height Above Land Surface	*	0		3.10	ft	1	08/24/2021 10:40	R298344
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		16	NTU	1	08/24/2021 10:40	R298344
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		56.5	°F	1	08/24/2021 10:40	R298344
SW-846 9040B								
pH, Field	*	1.00		6.73		1	08/24/2021 10:40	R298344
SW-846 9050A								
Spec. Conductance, Field	*	1.00		1240	µmhos/cm @25C	1	08/24/2021 10:40	R298344
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		716	mg/L	1	08/27/2021 15:10	R298340
SW-846 9036 (TOTAL)								
Sulfate	NELAP	50		93	mg/L	5	08/26/2021 19:21	R297211
SW-846 9251 (TOTAL)								
Chloride	NELAP	5		32	mg/L	5	08/26/2021 19:21	R297212
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	09/02/2021 12:21	181367
Barium	NELAP	0.0025		0.565	mg/L	1	09/02/2021 12:21	181367
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	09/02/2021 12:21	181367
Boron	NELAP	0.0200		3.43	mg/L	1	09/02/2021 12:21	181367
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	09/02/2021 12:21	181367
Calcium	NELAP	0.100		136	mg/L	1	09/02/2021 12:21	181367
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	09/02/2021 12:21	181367
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	09/02/2021 12:21	181367
Lead	NELAP	0.0150		< 0.0150	mg/L	1	09/02/2021 12:21	181367
Lithium	NELAP	0.0050		0.0091	mg/L	1	09/02/2021 12:21	181367
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	09/02/2021 12:21	181367
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	09/08/2021 6:08	181368
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	09/08/2021 6:08	181368
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	09/08/2021 6:08	181368
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	09/02/2021 12:33	181421
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	09/21/2021 0:00	R299386
Radium-228	*	0		See attached	pci/L	1	09/21/2021 0:00	R299386



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21080889-011
 Matrix: GROUNDWATER

Work Order: 21080889
 Report Date: 28-Sep-21

Client Sample ID: AP-11

Collection Date: 08/25/2021 14:55

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		515.15	ft	1	08/25/2021 14:55	R298344
Depth to water	*	-5.00		12.52	ft	1	08/25/2021 14:55	R298344
Depth to water from measuring point	*	0		15.32	ft	1	08/25/2021 14:55	R298344
Elevation of groundwater surface	*	0		522.78	ft	1	08/25/2021 14:55	R298344
Measuring Point Elevation	*	0		538.10	ft	1	08/25/2021 14:55	R298344
Measuring Point Height Above Land Surface	*	0		2.80	ft	1	08/25/2021 14:55	R298344
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		46	NTU	1	08/25/2021 14:55	R298344
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		63.3	°F	1	08/25/2021 14:55	R298344
SW-846 9040B								
pH, Field	*	1.00		6.60		1	08/25/2021 14:55	R298344
SW-846 9050A								
Spec. Conductance, Field	*	1.00		1010	µmhos/cm @25C	1	08/25/2021 14:55	R298344
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		636	mg/L	1	08/27/2021 15:10	R298340
SW-846 9036 (DISSOLVED)								
Sulfate	NELAP	20		86	mg/L	2	08/30/2021 14:41	R298338
SW-846 9036 (TOTAL)								
Sulfate	NELAP	20		83	mg/L	2	08/30/2021 15:21	R298338
SW-846 9251 (DISSOLVED)								
Chloride	NELAP	10		97	mg/L	10	08/26/2021 21:08	R297212
SW-846 9251 (TOTAL)								
Chloride	NELAP	10		99	mg/L	10	08/26/2021 19:53	R297212
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	09/03/2021 9:26	181474
Boron	NELAP	0.0200		0.262	mg/L	1	09/03/2021 9:26	181474
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	09/02/2021 12:23	181367
Barium	NELAP	0.0025		0.158	mg/L	1	09/02/2021 12:23	181367
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	09/02/2021 12:23	181367
Boron	NELAP	0.0200		0.294	mg/L	1	09/02/2021 12:23	181367
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	09/02/2021 12:23	181367
Calcium	NELAP	0.100		138	mg/L	1	09/02/2021 12:23	181367
Chromium	NELAP	0.0050		0.0068	mg/L	1	09/02/2021 12:23	181367
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	09/02/2021 12:23	181367
Lead	NELAP	0.0150		< 0.0150	mg/L	1	09/02/2021 12:23	181367
Lithium	NELAP	0.0050		0.0104	mg/L	1	09/02/2021 12:23	181367
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	09/02/2021 12:23	181367
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	09/08/2021 6:16	181368
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	09/08/2021 6:16	181368
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	09/08/2021 6:16	181368



Laboratory Results

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

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells
Lab ID: 21080889-011
Matrix: GROUNDWATER

Work Order: 21080889
Report Date: 28-Sep-21
Client Sample ID: AP-11
Collection Date: 08/25/2021 14:55

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	09/02/2021 12:35	181421



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21080889-012
 Matrix: GROUNDWATER

Work Order: 21080889
 Report Date: 28-Sep-21

Client Sample ID: AP-12

Collection Date: 08/25/2021 14:24

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		510.30	ft	1	08/25/2021 14:24	R298344
Depth to water	*	-5.00		14.35	ft	1	08/25/2021 14:24	R298344
Depth to water from measuring point	*	0		17.25	ft	1	08/25/2021 14:24	R298344
Elevation of groundwater surface	*	0		523.45	ft	1	08/25/2021 14:24	R298344
Measuring Point Elevation	*	0		540.70	ft	1	08/25/2021 14:24	R298344
Measuring Point Height Above Land Surface	*	0		2.90	ft	1	08/25/2021 14:24	R298344
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		1600	NTU	1	08/25/2021 14:24	R298344
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		58.6	°F	1	08/25/2021 14:24	R298344
SW-846 9040B								
pH, Field	*	1.00		6.47		1	08/25/2021 14:24	R298344
SW-846 9050A								
Spec. Conductance, Field	*	1.00		1410	µmhos/cm @25C	1	08/25/2021 14:24	R298344
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		1150	mg/L	1	08/27/2021 15:10	R298340
SW-846 9036 (DISSOLVED)								
Sulfate	NELAP	100		466	mg/L	10	08/26/2021 21:16	R297211
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		471	mg/L	10	08/26/2021 20:01	R297211
SW-846 9251 (DISSOLVED)								
Chloride	NELAP	10		116	mg/L	10	08/26/2021 21:16	R297212
SW-846 9251 (TOTAL)								
Chloride	NELAP	10		133	mg/L	10	08/26/2021 20:01	R297212
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	09/03/2021 9:30	181474
Boron	NELAP	0.0200		< 0.0200	mg/L	1	09/03/2021 9:30	181474
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	09/02/2021 12:25	181367
Barium	NELAP	0.0025		0.249	mg/L	1	09/02/2021 12:25	181367
Beryllium	NELAP	0.0005		0.0023	mg/L	1	09/02/2021 12:25	181367
Boron	NELAP	0.0200		0.0267	mg/L	1	09/02/2021 12:25	181367
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	09/02/2021 12:25	181367
Calcium	NELAP	0.100		213	mg/L	1	09/02/2021 12:25	181367
Chromium	NELAP	0.0050		0.0608	mg/L	1	09/02/2021 12:25	181367
Cobalt	NELAP	0.0050		0.0356	mg/L	1	09/02/2021 12:25	181367
Lead	NELAP	0.0150		0.0342	mg/L	1	09/02/2021 12:25	181367
Lithium	NELAP	0.0050		0.0546	mg/L	1	09/02/2021 12:25	181367
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	09/02/2021 12:25	181367
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0100		< 0.0100	mg/L	50	09/10/2021 3:19	181368
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	09/08/2021 6:25	181368
Thallium	NELAP	0.0200		< 0.0200	mg/L	50	09/10/2021 3:19	181368

Elevated reporting limit due to matrix interference.



Laboratory Results

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

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells
Lab ID: 21080889-012
Matrix: GROUNDWATER

Work Order: 21080889
Report Date: 28-Sep-21
Client Sample ID: AP-12
Collection Date: 08/25/2021 14:24

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	09/02/2021 12:38	181421



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21080889-013
 Matrix: GROUNDWATER

Work Order: 21080889
 Report Date: 28-Sep-21

Client Sample ID: AP-13

Collection Date: 08/25/2021 13:58

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		511.00	ft	1	08/25/2021 13:58	R298344
Depth to water	*	-5.00		14.08	ft	1	08/25/2021 13:58	R298344
Depth to water from measuring point	*	0		17.48	ft	1	08/25/2021 13:58	R298344
Elevation of groundwater surface	*	0		524.52	ft	1	08/25/2021 13:58	R298344
Measuring Point Elevation	*	0		542.00	ft	1	08/25/2021 13:58	R298344
Measuring Point Height Above Land Surface	*	0		3.40	ft	1	08/25/2021 13:58	R298344
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		1300	NTU	1	08/25/2021 13:58	R298344
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		57.9	°F	1	08/25/2021 13:58	R298344
SW-846 9040B								
pH, Field	*	1.00		6.68		1	08/25/2021 13:58	R298344
SW-846 9050A								
Spec. Conductance, Field	*	1.00		703	µmhos/cm @25C	1	08/25/2021 13:58	R298344
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		534	mg/L	1	08/27/2021 15:11	R298340
SW-846 9036 (DISSOLVED)								
Sulfate	NELAP	100		122	mg/L	10	08/26/2021 21:40	R297211
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		150	mg/L	10	08/26/2021 20:09	R297211
SW-846 9251 (DISSOLVED)								
Chloride	NELAP	1		27	mg/L	1	08/26/2021 21:34	R297212
SW-846 9251 (TOTAL)								
Chloride	NELAP	20		78	mg/L	20	08/30/2021 14:17	R298339
SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	09/03/2021 9:33	181474
Boron	NELAP	0.0200		0.0427	mg/L	1	09/03/2021 9:33	181474
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	09/02/2021 12:28	181367
Barium	NELAP	0.0025		0.262	mg/L	1	09/02/2021 12:28	181367
Beryllium	NELAP	0.0005		0.0020	mg/L	1	09/02/2021 12:28	181367
Boron	NELAP	0.0200		0.0527	mg/L	1	09/02/2021 12:28	181367
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	09/02/2021 12:28	181367
Calcium	NELAP	0.100		105	mg/L	1	09/02/2021 12:28	181367
Chromium	NELAP	0.0050		0.0707	mg/L	1	09/02/2021 12:28	181367
Cobalt	NELAP	0.0050		0.0400	mg/L	1	09/02/2021 12:28	181367
Lead	NELAP	0.0150		0.0277	mg/L	1	09/02/2021 12:28	181367
Lithium	NELAP	0.0050		0.0610	mg/L	1	09/02/2021 12:28	181367
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	09/02/2021 12:28	181367
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0100		< 0.0100	mg/L	50	09/10/2021 3:27	181368
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	09/08/2021 6:34	181368
Thallium	NELAP	0.0200		< 0.0200	mg/L	50	09/10/2021 3:27	181368

Elevated reporting limit due to matrix interference.



Laboratory Results

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

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells
Lab ID: 21080889-013
Matrix: GROUNDWATER

Work Order: 21080889
Report Date: 28-Sep-21
Client Sample ID: AP-13
Collection Date: 08/25/2021 13:58

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	09/02/2021 12:40	181421



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21080889-014
 Matrix: GROUNDWATER

Work Order: 21080889
 Report Date: 28-Sep-21

Client Sample ID: AP-14

Collection Date: 08/24/2021 12:28

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		508.40	ft	1	08/24/2021 12:28	R298344
Depth to water	*	-5.00		0.02	ft	1	08/24/2021 12:28	R298344
Depth to water from measuring point	*	0		2.82	ft	1	08/24/2021 12:28	R298344
Elevation of groundwater surface	*	0		536.78	ft	1	08/24/2021 12:28	R298344
Measuring Point Elevation	*	0		539.60	ft	1	08/24/2021 12:28	R298344
Measuring Point Height Above Land Surface	*	0		2.80	ft	1	08/24/2021 12:28	R298344
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		58	NTU	1	08/24/2021 12:28	R298344
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		54.9	°F	1	08/24/2021 12:28	R298344
SW-846 9040B								
pH, Field	*	1.00		6.98		1	08/24/2021 12:28	R298344
SW-846 9050A								
Spec. Conductance, Field	*	1.00		1210	µmhos/cm @25C	1	08/24/2021 12:28	R298344
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		1270	mg/L	1	08/27/2021 15:11	R298340
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		680	mg/L	20	08/26/2021 20:17	R297211
SW-846 9251 (TOTAL)								
Chloride	NELAP	2		50	mg/L	2	08/26/2021 20:12	R297212
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	09/02/2021 12:30	181367
Barium	NELAP	0.0025		0.0632	mg/L	1	09/02/2021 12:30	181367
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	09/02/2021 12:30	181367
Boron	NELAP	0.0400		23.2	mg/L	2	09/02/2021 17:19	181367
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	09/02/2021 12:30	181367
Calcium	NELAP	0.100		219	mg/L	1	09/02/2021 12:30	181367
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	09/02/2021 12:30	181367
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	09/02/2021 12:30	181367
Lead	NELAP	0.0150		< 0.0150	mg/L	1	09/02/2021 12:30	181367
Lithium	NELAP	0.0050		0.0100	mg/L	1	09/02/2021 12:30	181367
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	09/02/2021 12:30	181367
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	09/08/2021 7:09	181368
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	09/08/2021 7:09	181368
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	09/08/2021 7:09	181368
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	09/02/2021 12:42	181421
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	09/21/2021 0:00	R299386
Radium-228	*	0		See attached	pci/L	1	09/21/2021 0:00	R299386



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21080889-015
 Matrix: GROUNDWATER

Work Order: 21080889
 Report Date: 28-Sep-21

Client Sample ID: RW-3

Collection Date: 08/25/2021 9:08

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		495.49	ft	1	08/25/2021 9:08	R298344
Depth to water	*	-5.00		7.34	ft	1	08/25/2021 9:08	R298344
Depth to water from measuring point	*	0		10.04	ft	1	08/25/2021 9:08	R298344
Elevation of groundwater surface	*	0		529.46	ft	1	08/25/2021 9:08	R298344
Measuring Point Elevation	*	0		539.50	ft	1	08/25/2021 9:08	R298344
Measuring Point Height Above Land Surface	*	0		2.70	ft	1	08/25/2021 9:08	R298344
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		15	NTU	1	08/25/2021 9:08	R298344
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		63.0	°F	1	08/25/2021 9:08	R298344
SW-846 9040B								
pH, Field	*	1.00		6.99		1	08/25/2021 9:08	R298344
SW-846 9050A								
Spec. Conductance, Field	*	1.00		673	µmhos/cm @25C	1	08/25/2021 9:08	R298344
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		404	mg/L	1	08/27/2021 15:11	R298340
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		14	mg/L	1	08/26/2021 20:19	R297211
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		28	mg/L	1	08/26/2021 20:20	R297212
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		0.105	mg/L	1	09/02/2021 12:31	181367
Barium	NELAP	0.0025		0.153	mg/L	1	09/02/2021 12:31	181367
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	09/02/2021 12:31	181367
Boron	NELAP	0.0200		0.180	mg/L	1	09/02/2021 12:31	181367
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	09/02/2021 12:31	181367
Calcium	NELAP	0.100		69.7	mg/L	1	09/02/2021 12:31	181367
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	09/02/2021 12:31	181367
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	09/02/2021 12:31	181367
Lead	NELAP	0.0150		< 0.0150	mg/L	1	09/02/2021 12:31	181367
Lithium	NELAP	0.0050		0.0066	mg/L	1	09/02/2021 12:31	181367
Molybdenum	NELAP	0.0100		0.0113	mg/L	1	09/02/2021 12:31	181367
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	09/08/2021 7:17	181368
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	09/08/2021 7:17	181368
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	09/08/2021 7:17	181368
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	09/02/2021 12:54	181421
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	09/21/2021 0:00	R299386
Radium-228	*	0		See attached	pci/L	1	09/21/2021 0:00	R299386



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21080889-016
 Matrix: GROUNDWATER

Work Order: 21080889
 Report Date: 28-Sep-21

Client Sample ID: GP-1

Collection Date: 08/24/2021 13:29

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		497.56	ft	1	08/24/2021 13:29	R298344
Depth to water	*	-5.00		9.41	ft	1	08/24/2021 13:29	R298344
Depth to water from measuring point	*	0		11.79	ft	1	08/24/2021 13:29	R298344
Elevation of groundwater surface	*	0		527.65	ft	1	08/24/2021 13:29	R298344
Measuring Point Elevation	*	0		539.44	ft	1	08/24/2021 13:29	R298344
Measuring Point Height Above Land Surface	*	0		2.38	ft	1	08/24/2021 13:29	R298344
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		5.6	NTU	1	08/24/2021 13:29	R298344
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		56.1	°F	1	08/24/2021 13:29	R298344
SW-846 9040B								
pH, Field	*	1.00		6.80		1	08/24/2021 13:29	R298344
SW-846 9050A								
Spec. Conductance, Field	*	1.00		689	µmhos/cm @25C	1	08/24/2021 13:29	R298344
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		444	mg/L	1	08/27/2021 15:11	R298340
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		< 10	mg/L	1	08/26/2021 20:38	R297211
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		19	mg/L	1	08/26/2021 20:39	R297212
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	09/02/2021 12:33	181367
Barium	NELAP	0.0025		0.205	mg/L	1	09/02/2021 12:33	181367
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	09/02/2021 12:33	181367
Boron	NELAP	0.0200		0.254	mg/L	1	09/02/2021 12:33	181367
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	09/02/2021 12:33	181367
Calcium	NELAP	0.100		82.7	mg/L	1	09/02/2021 12:33	181367
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	09/02/2021 12:33	181367
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	09/02/2021 12:33	181367
Lead	NELAP	0.0150		< 0.0150	mg/L	1	09/02/2021 12:33	181367
Lithium	NELAP	0.0050		< 0.0050	mg/L	1	09/02/2021 12:33	181367
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	09/02/2021 12:33	181367
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	09/08/2021 7:26	181368
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	09/08/2021 7:26	181368
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	09/08/2021 7:26	181368
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	09/02/2021 12:57	181421
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	09/21/2021 0:00	R299386
Radium-228	*	0		See attached	pci/L	1	09/21/2021 0:00	R299386



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21080889-017
 Matrix: GROUNDWATER

Work Order: 21080889
 Report Date: 28-Sep-21

Client Sample ID: GP-3

Collection Date: 08/24/2021 14:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		524.82	ft	1	08/24/2021 14:00	R298344
Depth to water	*	-5.00		16.95	ft	1	08/24/2021 14:00	R298344
Depth to water from measuring point	*	0		19.65	ft	1	08/24/2021 14:00	R298344
Elevation of groundwater surface	*	0		532.17	ft	1	08/24/2021 14:00	R298344
Measuring Point Elevation	*	0		551.82	ft	1	08/24/2021 14:00	R298344
Measuring Point Height Above Land Surface	*	0		2.70	ft	1	08/24/2021 14:00	R298344
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		26	NTU	1	08/24/2021 14:00	R298344
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		56.8	°F	1	08/24/2021 14:00	R298344
SW-846 9040B								
pH, Field	*	1.00		6.28		1	08/24/2021 14:00	R298344
SW-846 9050A								
Spec. Conductance, Field	*	1.00		282	µmhos/cm @25C	1	08/24/2021 14:00	R298344
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	NELAP	20		240	mg/L	1	08/30/2021 16:12	R298391
SW-846 9036 (TOTAL)								
Sulfate	NELAP	20		65	mg/L	2	08/30/2021 15:24	R298338
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		4	mg/L	1	08/26/2021 20:46	R297212
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	09/02/2021 12:35	181367
Barium	NELAP	0.0025		0.0281	mg/L	1	09/02/2021 12:35	181367
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	09/02/2021 12:35	181367
Boron	NELAP	0.0200		0.0366	mg/L	1	09/02/2021 12:35	181367
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	09/02/2021 12:35	181367
Calcium	NELAP	0.100		40.3	mg/L	1	09/02/2021 12:35	181367
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	09/02/2021 12:35	181367
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	09/02/2021 12:35	181367
Lead	NELAP	0.0150		< 0.0150	mg/L	1	09/02/2021 12:35	181367
Lithium	NELAP	0.0050		0.0110	mg/L	1	09/02/2021 12:35	181367
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	09/02/2021 12:35	181367
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	09/08/2021 7:35	181368
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	09/08/2021 7:35	181368
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	09/08/2021 7:35	181368
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	09/02/2021 12:59	181421
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	09/21/2021 0:00	R299386
Radium-228	*	0		See attached	pci/L	1	09/21/2021 0:00	R299386



Receiving Check List

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

Client: City Water, Light & Power

Work Order: 21080889

Client Project: Ash Pond Monitoring Wells

Report Date: 28-Sep-21

Carrier: Joe Riley

Received By: PRY

Completed by:

Mary E. Kemp

Reviewed by:

Elizabeth A. Hurley

On:

26-Aug-21

Mary E. Kemp

On:

26-Aug-21

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 2.8 |
| Type of thermal preservation? | None <input type="checkbox"/> | Ice <input checked="" 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 checked="" type="checkbox"/> | Lab <input type="checkbox"/> | NA <input 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.

pH strip #77492. - PRY/MKemp - 8/26/2021 9:32:34 AM

CHAIN OF CUSTODY

Pg 1 of 2 Workorder # 21080889

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

Client: <u>City Water, Light & Power</u> Address: <u>201 E. Lake Shore Drive</u> City/State/Zip: <u>Springfield IL 62712</u> Contact: <u>Eric Staley</u> Phone: <u>(217) 757-8610</u> Email: <u>eric.staley@cwlp.com</u> Fax:				Samples on: <input checked="" type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input type="checkbox"/> NO ICE <u>208 °C</u> Preserved in: <input type="checkbox"/> LAB <input checked="" type="checkbox"/> FIELD <u>FOR LAB USE ONLY</u> <u>LT65</u> LAB NOTES: <u>PHV 77492, PAT 8/26/21</u>																
Are these samples known to be involved in litigation? If yes, a surcharge will apply: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are these samples known to be hazardous? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are there any required reporting limits to be met on the requested analysis? If yes, please provide limits in the comment section: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <u>Permit on file</u>				Client Comments: *elevations, pH, conductivity, temperature **Sb Se Tl (ICPMS) As Ba Be B Cd Ca Cr Co Pb Li Hg Mo Quarterly monitoring																
PROJECT NAME/NUMBER <u>Ash Pond Monitoring Wells</u>		SAMPLE COLLECTOR'S NAME <u>J. RILEY P. RILEY</u>		# and Type of Containers		INDICATE ANALYSIS REQUESTED														
RESULTS REQUESTED <input checked="" type="checkbox"/> Standard <input type="checkbox"/> 1-2 Day (100% Surcharge) <input type="checkbox"/> Other <input type="checkbox"/> 3 Day (50% Surcharge)		BILLING INSTRUCTIONS		UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity	Cl SO4 (D)	As B (D)
Lab Use Only	Sample ID	Date/Time Sampled	Matrix																	
	21080889-001	AP-1	8/24/21 1057	Groundwater	1	3							✓	✓	✓	✓	✓	✓		
	002	AP-2	8/24/21 0957	Groundwater	1	3							✓	✓	✓	✓	✓	✓		
	003	AP-3	8/24/21 0937	Groundwater	1	3							✓	✓	✓	✓	✓	✓		
	004	AP-4	8/24/21 1607	Groundwater	1	3							✓	✓	✓	✓	✓	✓		
	005	AP-5	8/24/21 1631	Groundwater	1	3							✓	✓	✓	✓	✓	✓		
	006	AP-6	8/24/21 1146	Groundwater	1	3							✓	✓	✓	✓	✓	✓		
	007	AP-7	8/24/21 1305	Groundwater	1	3							✓	✓	✓	✓	✓	✓		
	008	AP-8	8/24/21 1128	Groundwater	1	3							✓	✓	✓	✓	✓	✓		
	009	AP-9	8/24/21 1448	Groundwater	2	2							✓	✓	✓			✓	✓	
	010	AP-10	8/24/21 1021	Groundwater	1	3							✓	✓	✓	✓	✓	✓		
	011	AP-11	8/25/21 1455	Groundwater	2	2							✓	✓	✓			✓	✓	
Relinquished By 				Date/Time <u>8/26/21 0805</u>		Received By 				Date/Time <u>8/26/21 0805</u>										

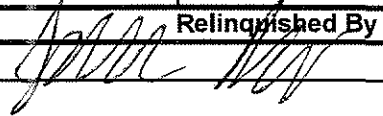
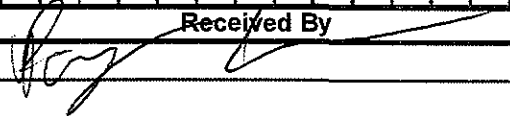
*The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions

8/26/21
 Resp to 1st RTP, Suppl. #5
 CWLP 30152

CHAIN OF CUSTODY

Pg 2 of 2 Workorder # 21080889

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

Client: <u>City Water, Light & Power</u> Address: <u>201 E. Lake Shore Drive</u> City/State/Zip: <u>Springfield IL 62712</u> Contact: <u>Eric Staley</u> Phone: <u>(217) 757-8610</u> Email: <u>eric.staley@cwlp.com</u> Fax: _____				Samples on: <input type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input type="checkbox"/> NO ICE _____ °C Preserved in: <input type="checkbox"/> LAB <input type="checkbox"/> FIELD <u>FOR LAB USE ONLY</u> LAB NOTES: _____																	
Are these samples known to be involved in litigation? If yes, a surcharge will apply: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are these samples known to be hazardous? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are there any required reporting limits to be met on the requested analysis? If yes, please provide limits in the comment section: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Permit on file				Client Comments: *elevations, pH, conductivity, temperature **Sb Se Tl (ICPMS) As Ba Be B Cd Ca Cr Co Pb Li Hg Mo Quarterly monitoring																	
PROJECT NAME/NUMBER Ash Pond Monitoring Wells		SAMPLE COLLECTOR'S NAME <u>J. RILEY P. RILEY</u>		# and Type of Containers		INDICATE ANALYSIS REQUESTED															
RESULTS REQUESTED <input checked="" type="checkbox"/> Standard <input type="checkbox"/> 1-2 Day (100% Surcharge) <input type="checkbox"/> Other <input type="checkbox"/> 3 Day (50% Surcharge)		BILLING INSTRUCTIONS		UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity	Cl SO4 (D)	As B (D)	
Lab Use Only	Sample ID	Date/Time Sampled	Matrix																		
21080889 = 012	AP-12	8/25/21 1424	Groundwater	2	2								✓	✓	✓			✓	✓	✓	
*013	AP-13	8/25/21 1358	Groundwater	2	2								✓	✓	✓			✓	✓	✓	
014	AP-14	8/24/21 1228	Groundwater	1	3								✓	✓	✓	✓	✓				
015	RW-3	8/23/21 0908	Groundwater	1	3								✓	✓	✓	✓	✓				
*016	GP-1	8/24/21 1329	Groundwater	1	3								✓	✓	✓	✓	✓				
*017	GP-3	8/24/21 1900	Groundwater	1	3								✓	✓	✓	✓	✓				
			Groundwater																		
			Groundwater																		
			Groundwater																		
			Groundwater																		
			Groundwater																		
Relinquished By			Date/Time		Received By			Date/Time													
			8/26/21 0805					8/26/21 0805													

*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

Well ID							Final	Units
AP1	DTW	10.85	11.2	11.2	11.2	11.2	13.72	ft
	DTB							ft
	MP Elev							ft
	Time	1046	1049	1052	1055	1058	1040	
	Temp		14.3	14.2	14.2	14.1	13.6	C
	D.O.		0.56	0.43	0.35	0.32	0.16	Mg/l
	Cond		1430	1472	1528	1540	1240	uS/cm
	pH		6.59	6.6	6.6	6.6	6.73	
	Orp		-80.2	-88.6	-94.2	-100.2	-125.8	mV
	Turbidity		22.45	17.84	12.99	9.97	15.73	NTU
	Drawdn		0.35	0	0	0	0.23	ft
	Volume		0.13	0.26	0.39	0.52	1.56	Gallon

Well ID							Final	Units
AP2	DTW	8.13	8.29	8.29	8.29	8.29	8.29	ft
	DTB							ft
	MP Elev							ft
	Time	942	948	951	954	957	957	
	Temp		15.6	15.7	15.7	15.7	15.7	C
	D.O.		0.38	0.31	0.29	0.28	0.28	Mg/l
	Cond		1449	1451	1454	1456	1859	uS/cm
	pH		6.4	6.4	6.4	6.4	6.4	
	Orp		17.9	16.4	15.6	15.1	15.1	mV
	Turbidity		21.56	12.08	10.57	9.96	9.96	NTU
	Drawdn		0.16	0	0	0	0	ft
	Volume		0.26	0.39	0.52	0.65	0.65	Gallon

Well ID						Final	Units
AP3	DTW	9.63	9.63	9.63	9.63	9.63	ft
	DTB						ft
	MP Elev						ft
	Time	928	931	934	937	937	
	Temp		16.2	16.1	16	16	C
	D.O.		0.45	0.32	0.28	0.28	Mg/l
	Cond		740	746	750	1150	uS/cm
	pH		6.47	6.49	6.52	6.52	
	Orp		-80.6	-80.8	-83.3	-83.3	mV
	Turbidity		10.06	6.01	6.58	6.58	NTU
	Drawdn		0	0	0	0	ft
	Volume		0.13	0.26	0.39	0.39	Gallon

Well ID							Final	Units
AP4	DTW	8.85	8.85	8.85	8.85	8.85	8.85	ft
	DTB							ft
	MP Elev							ft
	Time	1534	1358	1601	1604	1607	1607	
	Temp		17.4	17.6	17.4	17.3	17.3	C
	D.O.		0.21	0.24	0.37	0.38	0.38	Mg/l
	Cond		792	792	792	788	788	uS/cm
	pH		6.92	6.92	6.92	6.92	6.92	
	Orp		-132.1	-132.1	-127.8	-126.5	-126.5	mV
	Turbidity		88.13	93.87	89.27	93.21	93.21	NTU
	Drawdn		0	0	0	0	0	ft
	Volume		1.04	1.17	1.3	1.43	1.43	Gallon

CLOUDY
BROWNISH

Well ID						Final	Units
AP5	DTW	14.19	14.19	14.19	14.19	14.19	ft
	DTB						ft
	MP Elev						ft
	Time	1619	1622	1625	1628	1631	
	Temp		15.3	15.2	15.7	17.3	17.3 C
	D.O.		2.45	2.36	2.18	2.32	2.32 Mg/l
	Cond		537	561	580	604	604 uS/cm
	pH		7.14	7.08	7.07	7.08	7.08
	Orp		26.2	26.4	22.4	20.7	20.7 mV
	Turbidity		5.15	4.72	4.63	4.98	4.98 NTU
	Drawdn		0	0	0	0	0 ft
	Volume		0.13	0.26	0.39	0.52	0.52 Gallon

Well ID						Final	Units
AP6	DTW	8.53	9.35	9.5	9.57	9.57	ft
	DTB						ft
	MP Elev						ft
	Time	1134	1140	1143	1146	1146	
	Temp		18.5	19.7	20.6	20.6	C
	D.O.		3.48	3.17	3.22	3.22	Mg/l
	Cond		645	658	673	673	uS/cm
	pH		7.11	7.11	7.1	7.1	
	Orp		15.5	15.8	17.3	17.3	mV
	Turbidity		8.62	8.53	9.11	9.11	NTU
	Drawdn		0.82	0.15	0.07	0.07	ft
	Volume		0.26	0.39	0.52	0.52	Gallon

Well ID						Final	Units
AP7	DTW	10.76	12.35	12.8	13.68	13.68	ft
	DTB						ft
	MP Elev						ft
	Time	1256	1259	1302	1305	1305	
	Temp		16.7	16.3	15.2	15.2	C
	D.O.		1.39	0.94	0.61	0.61	Mg/l
	Cond		714	719	700	700	uS/cm
	pH		7.06	7.11	7.11	7.11	
	Orp		-106.3	-106.3	-104.4	-104.4	mV
	Turbidity		5.53	7.41	6.79	6.79	NTU
	Drawdn		1.59	0.45	0.88	0.88	ft
	Volume		0.13	0.26	0.39	0.39	Gallon

Well ID							Final	Units
AP8	DTW	6.15	9.75	9.75	9.75	9.75	9.75	ft
	DTB							ft
	MP Elev							ft
	Time	1113	1119	1122	1125	1128	1128	
	Temp		13.8	13.8	13.8	13.8	13.8	C
	D.O.		0.23	0.21	0.2	0.18	0.18	Mg/l
	Cond		766	766	767	766	766	uS/cm
	pH		6.91	6.92	6.92	6.92	6.92	
	Orp		3.6	-122.7	-123.8	-125.6	-125.6	mV
	Turbidity		21.61	12.48	11.42	7.77	7.77	NTU
	Drawdn		3.6	0	0	0	0	ft
	Volume		0.26	0.39	0.52	0.65	0.65	Gallon

Well ID											Final	Units
AP7	DTW	13.27	19.35	19.63	19.77	19.93	20.13	20.35	20.54	20.78	20.78	ft
	DTB											ft
	MP Elev											ft
	Time	1412	1427	1430	1433	1436	1439	1442	1445	1448	1448	
	Temp		19.2	19	19.4	19.5	19.4	19.3	19.3	19.1	19.1	C
	D.O.		0.47	0.42	0.41	0.4	0.38	0.36	0.36	0.34	0.34	Mg/l
	Cond		707	690	691	690	698	710	711	712	712	uS/cm
	pH		6.89	6.9	6.9	6.9	6.9	6.89	6.89	6.89	6.89	
	Orp		-85.1	-86.4	-87.9	-89.4	-90.9	-92.9	-93.9	-94.9	-94.9	mV
	Turbidity		88.12	63.73	48.77	38.55	28.91	22.42	18.88	18.61	18.61	NTU
	Drawdn		6.08	0.28	0.14	0.16	0.2	0.22	0.19	0.24	0.24	ft
	Volume		0.65	0.78	0.91	1.04	1.17	1.3	1.43	1.56	1.56	Gallon

Well ID									Final	Units
AP10	DTW	4.71	12.41	12.7	13.01	13.33	13.49	13.72	13.72	ft
	DTB									ft
	MP Elev									ft
	Time	1004	1025	1028	1031	1034	1037	1040	1040	
	Temp		13.7	13.6	13.6	13.6	13.6	13.6	13.6	C
	D.O.		0.18	0.17	0.17	0.16	0.16	0.16	0.16	Mg/l
	Cond		1240	1240	1241	1240	1240	1240	1240	uS/cm
	pH		6.72	6.72	6.72	6.72	6.72	6.73	6.73	
	Orp		-118.6	-120.3	-121.9	-123.4	-124.8	-125.8	-125.8	mV
	Turbidity		23.73	28.7	16.32	15.95	13.26	15.73	15.73	NTU
	Drawdn		8.7	0.29	0.31	0.32	0.16	0.23	0.23	ft
	Volume		0.91	1.04	1.17	1.3	1.43	1.56	1.56	Gallon

Well ID									Final	Units
AP11	DTW	15.32	16.23	16.31	16.31	16.31	16.31	16.31	16.31	ft
	DTB									ft
	MP Elev									ft
	Time	1428	1440	1443	1446	1449	1452	1455	1455	
	Temp		17.5	17.3	17.2	17.4	17.5	17.4	17.4	C
	D.O.		0.38	0.33	0.3	0.29	0.29	0.28	0.28	Mg/l
	Cond		1014	1007	1004	1007	1011	1012	1012	uS/cm
	pH		6.6	6.6	6.6	6.6	6.6	6.6	6.6	
	Orp		3.2	6	9	10.9	11.7	13.3	13.3	mV
	Turbidity		845.78	300.51	128.17	55.53	37.91	45.77	45.77	NTU
	Drawdn		0.91	0.08	0	0	0	0	0	ft
	Volume		0.52	0.65	0.78	0.91	1.04	1.17	1.17	Gallon

Well ID							Final	Units
AP12	DTW	17.25	21.98	22.06	22.09	22.09	22.09	ft
	DTB							ft
	MP Elev							ft
	Time	1402	1414	1417	1421	1424	1424	
	Temp		14.7	14.8	14.7	14.8	14.8	C
	D.O.		0.38	0.32	0.29	0.29	0.29	Mg/l
	Cond		1386	1403	1409	1409	1409	uS/cm
	pH		6.46	6.46	6.47	6.47	6.47	
	Orp		2.9	-1.5	-5.4	-8	-8	mV
	Turbidity		1801.13	1928.23	1790.44	1580.98	1580.98	NTU
	Drawdn		4.73	0.08	0.03	0	0	ft
	Volume		0.52	0.65	0.78	0.91	0.91	Gallon

CLOUDY
GREY

Well ID							Final	Units
AP13	DTW	17.48	21.37	21.78	22.06	22.29	22.29	ft
	DTB							ft
	MP Elev							ft
	Time	1337	1349	1352	1355	1358	1358	
	Temp		14.5	14.3	14.4	14.4	14.4	C
	D.O.		0.59	0.38	0.3	0.28	0.28	Mg/l
	Cond		699	698	701	703	703	uS/cm
	pH		6.72	6.7	6.69	6.68	6.68	
	Orp		-38.6	-33.4	-29.3	-25.9	-25.9	mV
	Turbidity		710.27	1293.68	1301.9	1267.13	1267.13	NTU
	Drawdn		3.89	0.41	0.28	0.23	0.23	ft
	Volume		0.52	0.65	0.78	0.91	0.91	Gallon

CLOUDY
GREY

Well ID									Final	Units
AP14	DTW	2.82	20.09	22.99	23.68	23.71	23.71	23.71	23.71	ft
	DTB									ft
	MP Elev									ft
	Time	1201	1213	1216	1219	1222	1225	1228	1228	
	Temp		12.7	12.7	12.7	12.7	12.7	12.7	12.7	C
	D.O.		0.82	1.34	1.49	1.57	1.6	1.48	1.48	Mg/l
	Cond		1209	1208	1209	1209	1209	1210	1210	uS/cm
	pH		6.96	6.98	6.98	6.98	6.98	6.98	6.98	
	Orp		-29.6	-28	-25.3	-23.8	-22.7	-17.2	-17.2	mV
	Turbidity		69.15	455.12	89.23	48.13	52.57	57.82	57.82	NTU
	Drawdn		17.27	2.9	0.69	0.03	0	0	0	ft
	Volume		0.52	0.65	0.78	0.91	1.04	1.17	1.17	Gallon

Well ID									Final	Units
RW3	DTW	10.04	11.22	11.35	11.48	11.9	12.05	12.09	12.09	ft
	DTB									ft
	MP Elev									ft
	Time	847	853	856	859	902	905	908	908	
	Temp		17.3	18.3	18.7	17.8	16.1	17.2	17.2	C
	D.O.		2.12	1.99	1.71	1.37	0.97	1.04	1.04	Mg/l
	Cond		672	690	701	692	663	673	673	uS/cm
	pH		6.92	6.94	6.96	6.97	6.98	6.99	6.99	
	Orp		-109.5	-109.9	-110.3	-113.4	-117.6	-114.6	-114.6	mV
	Turbidity		13.75	16.77	17.5	13.92	12.64	15.43	15.43	NTU
	Drawdn		1.18	0.13	0.13	0.42	0.15	0.04	0.04	ft
	Volume		0.26	0.39	0.52	0.65	0.78	0.91	0.91	Gallon

Well ID					Final	Units
GP1	DTW	11.79	14.68	15.06	15.38	15.38 ft
	DTB					ft
	MP Elev					ft
	Time	1320	1323	1326	1329	1329
	Temp		13.4	13.4	13.4	13.4 C
	D.O.		0.32	0.24	0.21	0.21 Mg/l
	Cond		686	689	689	689 uS/cm
	pH		6.84	6.82	6.8	6.8
	Orp		-121.4	-124.2	-125.4	-125.4 mV
	Turbidity		12.52	6.94	5.55	5.55 NTU
	Drawdn		2.92	0.38	0.32	0.32 ft
	Volume		0.13	0.26	0.39	0.39 Gallon

Well ID										Final	Units	
GP3	DTW	19.65 TOP OF PUMP										
	DTB										ft	
	MP Elev										ft	
	Time	1336	1339	1342	1345	1348	1351	1354	1357	1400	1400	
	Temp		13.7	14	13.3	13.5	12.8	14.3	14.9	13.8	13.8 C	
	D.O.		0.74	0.52	0.42	0.48	0.43	0.91	0.74	0.63	0.63 Mg/l	
	Cond		269	288.8	280.5	283.1	283.9	298.4	296	281.7	281.7 uS/cm	
	pH		6.44	6.33	6.31	6.29	6.28	6.28	6.29	6.28	6.28	
	Orp		36.9	50.7	59	65.7	68.3	70.4	75.4	81.5	81.5 mV	
	Turbidity		121.22	59.79	25.17	16.91	60.21	29.56	20.12	25.74	25.74 NTU	
	Drawdn		NA	NA	NA	NA	NA	NA	NA		0.62	
	Volume		0.13	0.26	0.39	0.52	0.65	0.78	0.91	1.04	1.04 Gallon	

September 23, 2021

Ms. Shelly Hennessy
Teklab Inc.
5445 Horseshoe Lake Road
Collinsville, IL 62234

RE: Project: 21080889
Pace Project No.: 30438288

Dear Ms. Hennessy:


Enclosed are the analytical results for sample(s) received by the laboratory on August 31, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Carin Ferris
carin.ferris@pacelabs.com
724-850-5615
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

CERTIFICATIONS

Project: 21080889
Pace Project No.: 30438288

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 9526

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 21080889

Pace Project No.: 30438288

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30438288001	21080889-001	Water	08/24/21 10:58	08/31/21 10:00
30438288002	21080889-002	Water	08/24/21 09:57	08/31/21 10:00
30438288003	21080889-003	Water	08/24/21 09:37	08/31/21 10:00
30438288004	21080889-004	Water	08/24/21 16:07	08/31/21 10:00
30438288005	21080889-005	Water	08/24/21 16:31	08/31/21 10:00
30438288006	21080889-006	Water	08/24/21 11:46	08/31/21 10:00
30438288007	21080889-007	Water	08/24/21 13:05	08/31/21 10:00
30438288008	21080889-008	Water	08/24/21 11:28	08/31/21 10:00
30438288009	21080889-010	Water	08/24/21 10:40	08/31/21 10:00
30438288010	21080889-014	Water	08/24/21 12:28	08/31/21 10:00
30438288011	21080889-015	Water	08/25/21 09:08	08/31/21 10:00
30438288012	21080889-016	Water	08/24/21 13:29	08/31/21 10:00
30438288013	21080889-017	Water	08/24/21 14:00	08/31/21 10:00

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 21080889
Pace Project No.: 30438288

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30438288001	21080889-001	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
30438288002	21080889-002	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
30438288003	21080889-003	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
30438288004	21080889-004	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
30438288005	21080889-005	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
30438288006	21080889-006	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
30438288007	21080889-007	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
30438288008	21080889-008	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
30438288009	21080889-010	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
30438288010	21080889-014	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
30438288011	21080889-015	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
30438288012	21080889-016	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
30438288013	21080889-017	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 21080889

Pace Project No.: 30438288

Method: EPA 903.1

Description: 903.1 Radium 226

Client: Teklab Inc.

Date: September 23, 2021

General Information:

13 samples were analyzed for EPA 903.1 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 21080889
Pace Project No.: 30438288

Method: EPA 904.0
Description: 904.0 Radium 228
Client: Teklab Inc.
Date: September 23, 2021

General Information:

13 samples were analyzed for EPA 904.0 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21080889

Pace Project No.: 30438288

Sample: 21080889-001 **Lab ID: 30438288001** Collected: 08/24/21 10:58 Received: 08/31/21 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.000 ± 0.262 (0.587) C:NA T:96%	pCi/L	09/21/21 12:30	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.840 ± 0.440 (0.776) C:64% T:86%	pCi/L	09/22/21 11:20	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21080889

Pace Project No.: 30438288

Sample: 21080889-002 **Lab ID: 30438288002** Collected: 08/24/21 09:57 Received: 08/31/21 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.104 ± 0.431 (0.821) C:NA T:94%	pCi/L	09/21/21 12:30	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.904 ± 0.483 (0.862) C:61% T:85%	pCi/L	09/22/21 11:20	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21080889

Pace Project No.: 30438288

Sample: 21080889-003 **Lab ID: 30438288003** Collected: 08/24/21 09:37 Received: 08/31/21 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.0988 ± 0.237 (0.459) C:NA T:97%	pCi/L	09/21/21 12:30	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.154 ± 0.391 (0.874) C:58% T:81%	pCi/L	09/22/21 11:20	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21080889

Pace Project No.: 30438288

Sample: 21080889-004 **Lab ID: 30438288004** Collected: 08/24/21 16:07 Received: 08/31/21 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.492 ± 0.494 (0.770) C:NA T:90%	pCi/L	09/21/21 12:30	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	-0.0199 ± 0.316 (0.745) C:62% T:91%	pCi/L	09/22/21 11:21	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21080889
Pace Project No.: 30438288

Sample: 21080889-005 **Lab ID: 30438288005** Collected: 08/24/21 16:31 Received: 08/31/21 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.000 ± 0.313 (0.677) C:NA T:94%	pCi/L	09/21/21 12:30	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	1.52 ± 0.591 (0.915) C:62% T:83%	pCi/L	09/22/21 11:21	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21080889

Pace Project No.: 30438288

Sample: 21080889-006 **Lab ID: 30438288006** Collected: 08/24/21 11:46 Received: 08/31/21 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	-0.0539 ± 0.246 (0.580) C:NA T:90%	pCi/L	09/21/21 12:30	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.360 ± 0.379 (0.786) C:60% T:88%	pCi/L	09/22/21 11:21	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21080889

Pace Project No.: 30438288

Sample: 21080889-007 **Lab ID: 30438288007** Collected: 08/24/21 13:05 Received: 08/31/21 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.159 ± 0.497 (0.921) C:NA T:92%	pCi/L	09/21/21 12:30	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.498 ± 0.374 (0.727) C:63% T:89%	pCi/L	09/22/21 11:21	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21080889

Pace Project No.: 30438288

Sample: 21080889-008 **Lab ID: 30438288008** Collected: 08/24/21 11:28 Received: 08/31/21 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	1.35 ± 0.589 (0.500) C:NA T:93%	pCi/L	09/21/21 12:49	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	1.44 ± 0.550 (0.833) C:62% T:86%	pCi/L	09/22/21 11:21	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21080889

Pace Project No.: 30438288

Sample: 21080889-010 **Lab ID: 30438288009** Collected: 08/24/21 10:40 Received: 08/31/21 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.390 ± 0.365 (0.518) C:NA T:89%	pCi/L	09/21/21 12:49	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	2.00 ± 0.664 (0.887) C:61% T:79%	pCi/L	09/22/21 11:21	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21080889
Pace Project No.: 30438288

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.336 ± 0.413 (0.673) C:NA T:96%	pCi/L	09/21/21 12:49	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.471 ± 0.467 (0.968) C:58% T:90%	pCi/L	09/22/21 11:22	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21080889

Pace Project No.: 30438288

Sample: 21080889-015 **Lab ID: 30438288011** Collected: 08/25/21 09:08 Received: 08/31/21 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	-0.0566 ± 0.484 (0.986) C:NA T:94%	pCi/L	09/21/21 12:49	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.738 ± 0.355 (0.615) C:88% T:86%	pCi/L	09/22/21 11:22	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21080889

Pace Project No.: 30438288

Sample: 21080889-016 **Lab ID: 30438288012** Collected: 08/24/21 13:29 Received: 08/31/21 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.445 ± 0.381 (0.517) C:NA T:92%	pCi/L	09/21/21 12:49	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.914 ± 0.369 (0.577) C:89% T:86%	pCi/L	09/22/21 11:22	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21080889

Pace Project No.: 30438288

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: 21080889-017 Lab ID: 30438288013 Collected: 08/24/21 14:00 Received: 08/31/21 10:00 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.213 ± 0.419 (0.752) C:NA T:92%	pCi/L	09/21/21 12:49	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	1.08 ± 0.487 (0.859) C:90% T:82%	pCi/L	09/22/21 11:27	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 21080889

Pace Project No.: 30438288

QC Batch: 463244

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30438288001, 30438288002, 30438288003, 30438288004, 30438288005, 30438288006, 30438288007, 30438288008, 30438288009, 30438288010, 30438288011, 30438288012, 30438288013

METHOD BLANK: 2236562

Matrix: Water

Associated Lab Samples: 30438288001, 30438288002, 30438288003, 30438288004, 30438288005, 30438288006, 30438288007, 30438288008, 30438288009, 30438288010, 30438288011, 30438288012, 30438288013

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.127 ± 0.275 (0.633) C:NA T:96%	pCi/L	09/21/21 12:30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 21080889

Pace Project No.: 30438288

QC Batch: 463245

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30438288001, 30438288002, 30438288003, 30438288004, 30438288005, 30438288006, 30438288007, 30438288008, 30438288009, 30438288010, 30438288011, 30438288012, 30438288013

METHOD BLANK: 2236563

Matrix: Water

Associated Lab Samples: 30438288001, 30438288002, 30438288003, 30438288004, 30438288005, 30438288006, 30438288007, 30438288008, 30438288009, 30438288010, 30438288011, 30438288012, 30438288013

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.500 ± 0.336 (0.627) C:65% T:85%	pCi/L	09/22/21 11:23	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 21080889
Pace Project No.: 30438288

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.

Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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WO#: 30438288



TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004

Are the samples chilled? YES NO With: Ice Blue Ice Preserved in: Lab Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: Sampler: J. Riley P. Riley QC Level: 2

Project# 21080889

Comments: **Please Issue reports and invoices via email only**
Please analyze for Radium (226, 228) by EPA 903.0/904.0
on your standard turnaround time.
Batch QC is required for all analyses requested. Sample collected in (state): IL

Contact: Shelly A. Hennessy Email: shennessy@teklabinc.com
Requested Due Date: STD TAT Billing/PO: 31735

Any changes to analysis/methods must be approved by Teklab, Inc.
Phone: (618) 344-1004 ext 36

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226/228													
	21080889-001	8/24/21 1058	HNO3	Groundwater	✓													
	21080889-002	8/24/21 0957	HNO3	Groundwater	✓													
	21080889-003	8/24/21 0937	HNO3	Groundwater	✓													
	21080889-004	8/24/21 1607	HNO3	Groundwater	✓													
	21080889-005	8/24/21 1631	HNO3	Groundwater	✓													
	21080889-006	8/24/21 1146	HNO3	Groundwater	✓													
	21080889-007	8/24/21 1305	HNO3	Groundwater	✓													
	21080889-008	8/24/21 1128	HNO3	Groundwater	✓													
	21080889-010	8/24/21 1040	HNO3	Groundwater	✓													
	21080889-014	8/24/21 1228	HNO3	Groundwater	✓													
	21080889-015	8/25/21 0908	HNO3	Groundwater	✓													

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*Relinquished By	Date/Time	Received By	Date/Time
<i>Mary Kemp</i>	8/26/21 1600	<i>J. Riley P. Riley</i>	8-31-21 1000

Resp. to 18 CFR 1.563, 563pp1, #5
CWLP - 30193

TEKLAB, INC. Chain of Custody

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

Are the samples chilled? YES NO With: Ice Blue Ice Preserved in: Lab Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: Sampler: QC Level:

Project#

Comments:
Please analyze for Radium (226, 228) by EPA 903.0/904.0
on your standard turnaround time.
Batch QC is required for all analyses requested. Sample collected in (state): IL

Contact: Email:
Requested Due Date: Billing/PO:

Any changes to analysis/methods must be approved by Teklab, Inc.
Phone:

30438288

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix
	21080889-016	8/24/21 1329	HNO3	Groundwater
	21080889-017	8/24/21 1400	HNO3	Groundwater
			HNO3	Groundwater
			HNO3	Groundwater
			HNO3	Groundwater
			HNO3	Groundwater
			HNO3	Groundwater
			HNO3	Groundwater
			HNO3	Groundwater
			HNO3	Groundwater
			HNO3	Groundwater
			HNO3	Groundwater

Radium 226/228	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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*Relinquished By	Date/Time	Received By	Date/Time
<i>May Kemp</i>	8/26/21 1600	<i>[Signature]</i>	8-31-21 1000

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Resp. to 18 CFR 1.611, 1.612, 1.613, 1.614, 1.615, 1.616, 1.617, 1.618, 1.619, 1.620, 1.621, 1.622, 1.623, 1.624, 1.625, 1.626, 1.627, 1.628, 1.629, 1.630, 1.631, 1.632, 1.633, 1.634, 1.635, 1.636, 1.637, 1.638, 1.639, 1.640, 1.641, 1.642, 1.643, 1.644, 1.645, 1.646, 1.647, 1.648, 1.649, 1.650, 1.651, 1.652, 1.653, 1.654, 1.655, 1.656, 1.657, 1.658, 1.659, 1.660, 1.661, 1.662, 1.663, 1.664, 1.665, 1.666, 1.667, 1.668, 1.669, 1.670, 1.671, 1.672, 1.673, 1.674, 1.675, 1.676, 1.677, 1.678, 1.679, 1.680, 1.681, 1.682, 1.683, 1.684, 1.685, 1.686, 1.687, 1.688, 1.689, 1.690, 1.691, 1.692, 1.693, 1.694, 1.695, 1.696, 1.697, 1.698, 1.699, 1.700, 1.701, 1.702, 1.703, 1.704, 1.705, 1.706, 1.707, 1.708, 1.709, 1.710, 1.711, 1.712, 1.713, 1.714, 1.715, 1.716, 1.717, 1.718, 1.719, 1.720, 1.721, 1.722, 1.723, 1.724, 1.725, 1.726, 1.727, 1.728, 1.729, 1.730, 1.731, 1.732, 1.733, 1.734, 1.735, 1.736, 1.737, 1.738, 1.739, 1.740, 1.741, 1.742, 1.743, 1.744, 1.745, 1.746, 1.747, 1.748, 1.749, 1.750, 1.751, 1.752, 1.753, 1.754, 1.755, 1.756, 1.757, 1.758, 1.759, 1.760, 1.761, 1.762, 1.763, 1.764, 1.765, 1.766, 1.767, 1.768, 1.769, 1.770, 1.771, 1.772, 1.773, 1.774, 1.775, 1.776, 1.777, 1.778, 1.779, 1.780, 1.781, 1.782, 1.783, 1.784, 1.785, 1.786, 1.787, 1.788, 1.789, 1.790, 1.791, 1.792, 1.793, 1.794, 1.795, 1.796, 1.797, 1.798, 1.799, 1.800, 1.801, 1.802, 1.803, 1.804, 1.805, 1.806, 1.807, 1.808, 1.809, 1.810, 1.811, 1.812, 1.813, 1.814, 1.815, 1.816, 1.817, 1.818, 1.819, 1.820, 1.821, 1.822, 1.823, 1.824, 1.825, 1.826, 1.827, 1.828, 1.829, 1.830, 1.831, 1.832, 1.833, 1.834, 1.835, 1.836, 1.837, 1.838, 1.839, 1.840, 1.841, 1.842, 1.843, 1.844, 1.845, 1.846, 1.847, 1.848, 1.849, 1.850, 1.851, 1.852, 1.853, 1.854, 1.855, 1.856, 1.857, 1.858, 1.859, 1.860, 1.861, 1.862, 1.863, 1.864, 1.865, 1.866, 1.867, 1.868, 1.869, 1.870, 1.871, 1.872, 1.873, 1.874, 1.875, 1.876, 1.877, 1.878, 1.879, 1.880, 1.881, 1.882, 1.883, 1.884, 1.885, 1.886, 1.887, 1.888, 1.889, 1.890, 1.891, 1.892, 1.893, 1.894, 1.895, 1.896, 1.897, 1.898, 1.899, 1.900, 1.901, 1.902, 1.903, 1.904, 1.905, 1.906, 1.907, 1.908, 1.909, 1.910, 1.911, 1.912, 1.913, 1.914, 1.915, 1.916, 1.917, 1.918, 1.919, 1.920, 1.921, 1.922, 1.923, 1.924, 1.925, 1.926, 1.927, 1.928, 1.929, 1.930, 1.931, 1.932, 1.933, 1.934, 1.935, 1.936, 1.937, 1.938, 1.939, 1.940, 1.941, 1.942, 1.943, 1.944, 1.945, 1.946, 1.947, 1.948, 1.949, 1.950, 1.951, 1.952, 1.953, 1.954, 1.955, 1.956, 1.957, 1.958, 1.959, 1.960, 1.961, 1.962, 1.963, 1.964, 1.965, 1.966, 1.967, 1.968, 1.969, 1.970, 1.971, 1.972, 1.973, 1.974, 1.975, 1.976, 1.977, 1.978, 1.979, 1.980, 1.981, 1.982, 1.983, 1.984, 1.985, 1.986, 1.987, 1.988, 1.989, 1.990, 1.991, 1.992, 1.993, 1.994, 1.995, 1.996, 1.997, 1.998, 1.999, 2.000

REVISED
received by email
CAF-9/1/21

TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004

WO#: 30438288



30438288

Are the samples chilled? YES NO With: Ice Blue Ice Preserved in: Lab Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: Sampler: J. Riley P. Riley QC Level: 2

Comments: **Please issue reports and invoices via email only**
Please analyze for Radium (226, 228) by EPA 903.0/904.0
on your standard turnaround time.
Batch QC is required for all analyses requested. Sample collected in (state): IL
Any changes to analysis/methods must be approved by Teklab, Inc.
Phone: (618) 344-1004 ext 36

Project#: 21080889

Contact: Shelly A. Hennessy Email: shennessy@teklabinc.com
Requested Due Date: STD TAT Billing/PO: 31735

PLEASE NOTE

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Radium 226/228																			
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Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix
	21080889-001 TE	8/24/21 1058	HNO3	Groundwater
	21080889-002	8/24/21 0957	HNO3	Groundwater
	21080889-003	8/24/21 0937	HNO3	Groundwater
	21080889-004	8/24/21 1607	HNO3	Groundwater
	21080889-005	8/24/21 1631	HNO3	Groundwater
	21080889-006	8/24/21 1146	HNO3	Groundwater
	21080889-007	8/24/21 1305	HNO3	Groundwater
	21080889-008	8/24/21 1128	HNO3	Groundwater
	21080889-010	8/24/21 1040	HNO3	Groundwater
	21080889-014	8/24/21 1228	HNO3	Groundwater
	21080889-015	8/25/21 0908	HNO3	Groundwater

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*Relinquished By	Date/Time	Received By	Date/Time
Mary Kemp	8/26/21 1600	JR	8-31-21 1000

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TEKLAB, INC. Chain of Custody

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

Are the samples chilled? YES NO With: Ice Blue Ice Preserved in: Lab Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: Sampler: J. Riley P. Riley QC Level: 2

Project# 21080889

Comments: Please issue reports and invoices via email only
Please analyze for Radium (226, 228) by EPA 903.0/904.0
on your standard turnaround time.
Batch QC is required for all analyses requested. Sample collected in (state): IL

Contact: Shelly A. Hennessy Email: shennessy@teklabinc.com
Requested Due Date: STD TAT Billing/PO: 31735

Any changes to analysis/methods must be approved by Teklab, Inc.

Phone: (618) 344-1004 ext 36

30438288

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Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226/228														
	21080889-016	8/24/21 1329	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	21080889-017	8/24/21 1400	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			HNO3	Groundwater	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			HNO3	Groundwater	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			HNO3	Groundwater	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			HNO3	Groundwater	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			HNO3	Groundwater	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			HNO3	Groundwater	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			HNO3	Groundwater	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			HNO3	Groundwater	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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*Relinquished By	Date/Time	Received By	Date/Time
Mary Kemp	8/26/21 1600	[Signature]	8-31-21 LOUD

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Pace Greensburg Lab - Sample Container Count

Client TERLAB
 Site 21080584

30438288

Profile Number 2813
 Notes _____

Sample Line Item	Matrix	AG1H	AG1S	AG1T	AG2U	AG3S	AG3U	AG5U	AG5T	BG1U	BG2U	BP1N	BP1U	BP2S	BP2U	BP3C	BP3N	BP3S	BP3U	DG9S	GCUB	VG9H	VG9T	VG9U	VOAK	WGFU	WGKU	ZPLC	
1	WT											2																	
2																													
3																													
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

Container Codes

Glass

AGJN	1 Gallon Jug with HNO3	DG9S	40mL amber VOA vial H2SO4
AG5U	100mL amber glass unpreserved	VG9U	40mL clear VOA vial
AG5T	100mL amber glass Na Thiosulfate	VG9T	40mL clear VOA vial Na Thiosulfate
AGJN	1 Gallon Jug	VG9H	40mL clear VOA vial HCl
AG1S	1L amber glass H2SO4	JGFU	4oz amber wide jar
AG1H	1L amber glass HCl	WGFU	4oz wide jar unpreserved
AG1T	1L amber glass Na Thiosulfate	BG2U	500mL clear glass unpreserved
BG1U	1L clear glass unpreserved	AG2U	500mL amber glass unpreserved
AG3S	250mL amber glass H2SO4	WGKU	8oz wide jar unpreserved
AG3U	250mL amber glass unpreserved		

Plastic / Misc.

GCUB	1 Gallon Cubitainer	EZI	5g Encore
12GN	1/2 Gallon Cubitainer	VOAK	Kit for Volatile Solid
SP5T	120mL Coliform Na Thiosulfate	I	Wipe/Swab
BP1N	1L plastic HNO3	ZPLC	Ziploc Bag
BP1U	1L plastic unpreserved		
BP3S	250mL plastic H2SO4	WT	Water
BP3N	250mL plastic HNO3	SL	Solid
BP3U	250mL plastic unpreserved	OL	Non-aqueous liquid
BP3C	250ml plastic NAOH	WP	Wipe
BP2S	500mL plastic H2SO4		
BP2U	500mL plastic unpreserved		

Resp. to 180075, 08/01/17, #5
 CWLP - 30197

Pittsburgh Lab Sample Condition Upon Receipt



Client Name: TEKLAB

Project # # 30438288

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 9450 9225 4296

Label <u>Rm</u>
LIMS Login <u>Rm</u>

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Thermometer Used _____ Type of Ice: Wet Blue None

Cooler Temperature _____ Observed Temp _____ °C Correction Factor: _____ °C Final Temp: _____ °C

Temp should be above freezing to 6°C

Comments:	Yes	No	N/A	pH paper Lot# <u>1000411</u>	Date and Initials of person examining contents: <u>Rm 8-31-21</u>	
Chain of Custody Present:	/			1.		
Chain of Custody Filled Out:	/			2.		
Chain of Custody Relinquished:	/			3.		
Sampler Name & Signature on COC:		/		4.	<u>No Signature</u>	
Sample Labels match COC:	/			5.		
-Includes date/time/ID Matrix: <u>WT</u>						
Samples Arrived within Hold Time:	/			6.		
Short Hold Time Analysis (<72hr remaining):		/		7.		
Rush Turn Around Time Requested:		/		8.		
Sufficient Volume:	/			9.		
Correct Containers Used:	/			10.		
-Pace Containers Used:		/				
Containers Intact:	/			11.		
Orthophosphate field filtered			/	12.		
Hex Cr Aqueous sample field filtered			/	13.		
Organic Samples checked for dechlorination:			/	14.		
Filtered volume received for Dissolved tests			/	15.		
All containers have been checked for preservation.	/			16.		
exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix					<u>PH 2</u>	
All containers meet method preservation requirements.	-			Initial when completed	<u>Rm</u>	Date/time of preservation
				Lot # of added preservative		
Headspace in VOA Vials (>6mm):			/	17.		
Trip Blank Present:			/	18.		
Trip Blank Custody Seals Present			/			
Rad Samples Screened < 0.5 mreem/hr	/			Initial when completed:	<u>Rm</u>	Date: <u>8-31-21</u> Survey Meter SN: <u>2563</u>

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

A check in this box indicates that additional information has been stored in ereports.

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

August 27, 2020

Eric Staley
City Water, Light & Power
201 E. Lake Shore Drive
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615



RE: Ash Pond Monitoring Wells

WorkOrder: 20071643

Dear Eric Staley:

TEKLAB, INC received 8 samples on 8/6/2020 12:10:00 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,



Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com



Report Contents

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

Client: City Water, Light & Power

Work Order: 20071643

Client Project: Ash Pond Monitoring Wells

Report Date: 27-Aug-2020

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	4
Accreditations	5
Laboratory Results	6
Receiving Check List	14
Chain of Custody	Appended

Client: City Water, Light & Power

Work Order: 20071643

Client Project: Ash Pond Monitoring Wells

Report Date: 27-Aug-2020

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
- 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)

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: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 20071643
Report Date: 27-Aug-2020

Cooler Receipt Temp: 2.4 °C

An employee of Teklab, Inc. collected the sample(s).

AP-8, AP-9 and AP-10 have not been installed per Eric Staley. SAH 8/7/20

Radium-226 and Radium-228 analysis was performed by Pace Analytical Services, LLC. See attached report for results.

Locations

Collinsville

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Fax (618) 344-1005
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Collinsville Air

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Collinsville, IL 62234-7425
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Springfield

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Springfield, IL 62711-9415
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Lenexa, KS 66214
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Accreditations

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

Client: City Water, Light & Power

Work Order: 20071643

Client Project: Ash Pond Monitoring Wells

Report Date: 27-Aug-2020

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2021	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2021	Collinsville
Louisiana	LDEQ	166493	NELAP	6/30/2021	Collinsville
Louisiana	LDEQ	166578	NELAP	6/30/2021	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2021	Collinsville
Arkansas	ADEQ	88-0966		3/14/2021	Collinsville
Illinois	IDPH	17584		5/31/2021	Collinsville
Kentucky	UST	0073		1/31/2021	Collinsville
Missouri	MDNR	00930		5/31/2021	Collinsville
Missouri	MDNR	930		1/31/2022	Collinsville



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 20071643-001
 Matrix: GROUNDWATER

Work Order: 20071643
 Report Date: 27-Aug-2020

Client Sample ID: RW-3

Collection Date: 08/05/2020 11:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		495.52	ft	1	08/05/2020 11:00	R280186
Depth to water	*	-5.00		8.31	ft	1	08/05/2020 11:00	R280186
Depth to water from measuring point	*	0		11.01	ft	1	08/05/2020 11:00	R280186
Elevation of groundwater surface	*	0		528.49	ft	1	08/05/2020 11:00	R280186
Measuring Point Elevation	*	0		539.50	ft	1	08/05/2020 11:00	R280186
Measuring Point Height Above Land Surface	*	0		2.70	ft	1	08/05/2020 11:00	R280186
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		56.8	°F	1	08/05/2020 11:00	R280186
SW-846 9040B								
pH, Field	*	1.00		7.29		1	08/05/2020 11:00	R280186
SW-846 9050A								
Spec. Conductance, Field	*	1.00		650	µmhos/cm @25C	1	08/05/2020 11:00	R280186
STANDARD METHODS 2540 C (TOTAL) 1997								
Total Dissolved Solids	NELAP	50		335	mg/L	2.5	08/06/2020 14:24	R280107
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		20	mg/L	1	08/07/2020 16:51	R280200
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.45	mg/L	1	08/07/2020 16:08	R280230
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		28	mg/L	1	08/07/2020 16:51	R280201
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		0.253	mg/L	1	08/11/2020 17:10	168102
Barium	NELAP	0.0025		0.189	mg/L	1	08/11/2020 17:10	168102
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	08/11/2020 17:10	168102
Boron	NELAP	0.0200		0.185	mg/L	1	08/11/2020 17:10	168102
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/11/2020 17:10	168102
Calcium	NELAP	0.100	S	73.8	mg/L	1	08/11/2020 17:10	168102
Chromium	NELAP	0.0050		0.0052	mg/L	1	08/11/2020 17:10	168102
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	08/11/2020 17:10	168102
Lead	NELAP	0.0150		< 0.0150	mg/L	1	08/11/2020 17:10	168102
Lithium	NELAP	0.0050		0.0098	mg/L	1	08/11/2020 17:10	168102
Molybdenum	NELAP	0.0100		0.0116	mg/L	1	08/11/2020 17:10	168102
<i>Matrix spike control limits for Ca are not applicable due to high sample/spike ratio.</i>								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	08/07/2020 16:05	168103
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	08/07/2020 16:05	168103
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	08/07/2020 16:05	168103
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/07/2020 10:24	168114
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	08/21/2020 0:00	R280923
Radium-228	*	0		See attached	pci/L	1	08/21/2020 0:00	R280923



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 20071643-002
 Matrix: GROUNDWATER

Work Order: 20071643
 Report Date: 27-Aug-2020

Client Sample ID: AP-1

Collection Date: 08/05/2020 12:53

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		504.28	ft	1	08/05/2020 12:53	R280186
Depth to water	*	-5.00		8.58	ft	1	08/05/2020 12:53	R280186
Depth to water from measuring point	*	0		10.85	ft	1	08/05/2020 12:53	R280186
Elevation of groundwater surface	*	0		524.52	ft	1	08/05/2020 12:53	R280186
Measuring Point Elevation	*	0		535.37	ft	1	08/05/2020 12:53	R280186
Measuring Point Height Above Land Surface	*	0		2.27	ft	1	08/05/2020 12:53	R280186
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		57.2	°F	1	08/05/2020 12:53	R280186
SW-846 9040B								
pH, Field	*	1.00		6.80		1	08/05/2020 12:53	R280186
SW-846 9050A								
Spec. Conductance, Field	*	1.00		1560	µmhos/cm @25C	1	08/05/2020 12:53	R280186
STANDARD METHODS 2540 C (TOTAL) 1997								
Total Dissolved Solids	NELAP	50		1320	mg/L	2.5	08/06/2020 14:24	R280107
SW-846 9036 (TOTAL)								
Sulfate	NELAP	500		683	mg/L	50	08/13/2020 12:14	R280397
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.20	mg/L	1	08/07/2020 16:10	R280230
SW-846 9251 (TOTAL)								
Chloride	NELAP	20		60	mg/L	5	08/07/2020 16:57	R280201
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/10/2020 17:09	168102
Barium	NELAP	0.0025		0.464	mg/L	1	08/10/2020 17:09	168102
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	08/10/2020 17:09	168102
Boron	NELAP	0.0400		21.5	mg/L	2	08/12/2020 12:55	168102
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/10/2020 17:09	168102
Calcium	NELAP	0.100		242	mg/L	1	08/10/2020 17:09	168102
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/10/2020 17:09	168102
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	08/10/2020 17:09	168102
Lead	NELAP	0.0150		< 0.0150	mg/L	1	08/10/2020 17:09	168102
Lithium	NELAP	0.0050		0.0098	mg/L	1	08/10/2020 17:09	168102
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	08/10/2020 17:09	168102
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	08/07/2020 16:13	168103
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	08/07/2020 16:13	168103
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	08/07/2020 16:13	168103
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/07/2020 10:26	168114
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	08/21/2020 0:00	R280923
Radium-228	*	0		See attached	pci/L	1	08/21/2020 0:00	R280923



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 20071643-003
 Matrix: GROUNDWATER

Work Order: 20071643
 Report Date: 27-Aug-2020

Client Sample ID: AP-2

Collection Date: 08/05/2020 13:10

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		514.80	ft	1	08/05/2020 13:10	R280186
Depth to water	*	-5.00		5.52	ft	1	08/05/2020 13:10	R280186
Depth to water from measuring point	*	0		8.02	ft	1	08/05/2020 13:10	R280186
Elevation of groundwater surface	*	0		528.08	ft	1	08/05/2020 13:10	R280186
Measuring Point Elevation	*	0		536.10	ft	1	08/05/2020 13:10	R280186
Measuring Point Height Above Land Surface	*	0		2.50	ft	1	08/05/2020 13:10	R280186
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		58.5	°F	1	08/05/2020 13:10	R280186
SW-846 9040B								
pH, Field	*	1.00		6.66		1	08/05/2020 13:10	R280186
SW-846 9050A								
Spec. Conductance, Field	*	1.00		1530	µmhos/cm @25C	1	08/05/2020 13:10	R280186
STANDARD METHODS 2540 C (TOTAL) 1997								
Total Dissolved Solids	NELAP	20		1400	mg/L	1	08/06/2020 14:25	R280107
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		709	mg/L	20	08/07/2020 17:38	R280200
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.22	mg/L	1	08/07/2020 16:11	R280230
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		36	mg/L	1	08/07/2020 17:34	R280201
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/10/2020 17:13	168102
Barium	NELAP	0.0025		0.0994	mg/L	1	08/10/2020 17:13	168102
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	08/10/2020 17:13	168102
Boron	NELAP	0.0200		4.95	mg/L	1	08/12/2020 10:53	168102
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/10/2020 17:13	168102
Calcium	NELAP	0.100		287	mg/L	1	08/10/2020 17:13	168102
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/10/2020 17:13	168102
Cobalt	NELAP	0.0050		0.0139	mg/L	1	08/10/2020 17:13	168102
Lead	NELAP	0.0150		< 0.0150	mg/L	1	08/10/2020 17:13	168102
Lithium	NELAP	0.0050		0.0071	mg/L	1	08/10/2020 17:13	168102
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	08/10/2020 17:13	168102
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	08/07/2020 16:21	168103
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	08/07/2020 16:21	168103
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	08/07/2020 16:21	168103
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/07/2020 10:33	168114
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	08/21/2020 0:00	R280923
Radium-228	*	0		See attached	pci/L	1	08/21/2020 0:00	R280923



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 20071643-004
 Matrix: GROUNDWATER

Work Order: 20071643
 Report Date: 27-Aug-2020

Client Sample ID: AP-3

Collection Date: 08/05/2020 13:26

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		516.29	ft	1	08/05/2020 13:26	R280186
Depth to water	*	-5.00		7.65	ft	1	08/05/2020 13:26	R280186
Depth to water from measuring point	*	0		9.35	ft	1	08/05/2020 13:26	R280186
Elevation of groundwater surface	*	0		526.05	ft	1	08/05/2020 13:26	R280186
Measuring Point Elevation	*	0		535.40	ft	1	08/05/2020 13:26	R280186
Measuring Point Height Above Land Surface	*	0		1.70	ft	1	08/05/2020 13:26	R280186
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		60.3	°F	1	08/05/2020 13:26	R280186
SW-846 9040B								
pH, Field	*	1.00		6.78		1	08/05/2020 13:26	R280186
SW-846 9050A								
Spec. Conductance, Field	*	1.00		998	µmhos/cm @25C	1	08/05/2020 13:26	R280186
STANDARD METHODS 2540 C (TOTAL) 1997								
Total Dissolved Solids	NELAP	20		794	mg/L	1	08/06/2020 14:25	R280107
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		342	mg/L	10	08/07/2020 17:49	R280200
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.23	mg/L	1	08/07/2020 16:12	R280230
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		35	mg/L	1	08/07/2020 17:42	R280201
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/11/2020 17:21	168102
Barium	NELAP	0.0025		0.0953	mg/L	1	08/11/2020 17:21	168102
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	08/11/2020 17:21	168102
Boron	NELAP	0.0200		17.5	mg/L	1	08/11/2020 17:21	168102
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/11/2020 17:21	168102
Calcium	NELAP	0.100		157	mg/L	1	08/11/2020 17:21	168102
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/11/2020 17:21	168102
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	08/11/2020 17:21	168102
Lead	NELAP	0.0150		< 0.0150	mg/L	1	08/11/2020 17:21	168102
Lithium	NELAP	0.0050		0.0051	mg/L	1	08/11/2020 17:21	168102
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	08/11/2020 17:21	168102
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	08/07/2020 16:29	168103
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	08/07/2020 16:29	168103
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	08/07/2020 16:29	168103
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/07/2020 10:36	168114
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	08/21/2020 0:00	R280923
Radium-228	*	0		See attached	pci/L	1	08/21/2020 0:00	R280923



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 20071643-005
 Matrix: GROUNDWATER

Work Order: 20071643
 Report Date: 27-Aug-2020

Client Sample ID: AP-4
 Collection Date: 08/06/2020 9:10

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		494.34	ft	1	08/06/2020 9:10	R280186
Depth to water	*	-5.00		5.76	ft	1	08/06/2020 9:10	R280186
Depth to water from measuring point	*	0		8.92	ft	1	08/06/2020 9:10	R280186
Elevation of groundwater surface	*	0		548.14	ft	1	08/06/2020 9:10	R280186
Measuring Point Elevation	*	0		557.06	ft	1	08/06/2020 9:10	R280186
Measuring Point Height Above Land Surface	*	0		3.16	ft	1	08/06/2020 9:10	R280186
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		60.4	°F	1	08/06/2020 9:10	R280186
SW-846 9040B								
pH, Field	*	1.00		6.67		1	08/06/2020 9:10	R280186
SW-846 9050A								
Spec. Conductance, Field	*	1.00		812	µmhos/cm @25C	1	08/06/2020 9:10	R280186
STANDARD METHODS 2540 C (TOTAL) 1997								
Total Dissolved Solids	NELAP	20		480	mg/L	1	08/06/2020 14:25	R280107
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		< 10	mg/L	1	08/07/2020 17:51	R280200
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.14	mg/L	1	08/07/2020 16:13	R280230
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		14	mg/L	1	08/07/2020 17:50	R280201
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/11/2020 17:25	168102
Barium	NELAP	0.0025		0.422	mg/L	1	08/11/2020 17:25	168102
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	08/11/2020 17:25	168102
Boron	NELAP	0.0200		0.0939	mg/L	1	08/12/2020 10:46	168102
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/11/2020 17:25	168102
Calcium	NELAP	0.100		125	mg/L	1	08/11/2020 17:25	168102
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/11/2020 17:25	168102
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	08/11/2020 17:25	168102
Lead	NELAP	0.0150		< 0.0150	mg/L	1	08/11/2020 17:25	168102
Lithium	NELAP	0.0050		0.0071	mg/L	1	08/11/2020 17:25	168102
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	08/11/2020 17:25	168102
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	08/07/2020 17:59	168103
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	08/07/2020 17:59	168103
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	08/07/2020 17:59	168103
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/07/2020 10:38	168114
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	08/21/2020 0:00	R280923
Radium-228	*	0		See attached	pci/L	1	08/21/2020 0:00	R280923



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 20071643-006
 Matrix: GROUNDWATER

Work Order: 20071643
 Report Date: 27-Aug-2020

Client Sample ID: AP-5
 Collection Date: 08/06/2020 9:35

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		552.75	ft	1	08/06/2020 9:35	R280186
Depth to water	*	-5.00		15.53	ft	1	08/06/2020 9:35	R280186
Depth to water from measuring point	*	0		17.83	ft	1	08/06/2020 9:35	R280186
Elevation of groundwater surface	*	0		566.07	ft	1	08/06/2020 9:35	R280186
Measuring Point Elevation	*	0		583.90	ft	1	08/06/2020 9:35	R280186
Measuring Point Height Above Land Surface	*	0		2.30	ft	1	08/06/2020 9:35	R280186
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		54.9	°F	1	08/06/2020 9:35	R280186
SW-846 9040B								
pH, Field	*	1.00		7.36		1	08/06/2020 9:35	R280186
SW-846 9050A								
Spec. Conductance, Field	*	1.00		558	µmhos/cm @25C	1	08/06/2020 9:35	R280186
STANDARD METHODS 2540 C (TOTAL) 1997								
Total Dissolved Solids	NELAP	200		580	mg/L	10	08/06/2020 14:26	R280107
SW-846 9036 (TOTAL)								
Sulfate	NELAP	20		49	mg/L	2	08/13/2020 12:25	R280397
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.34	mg/L	1	08/07/2020 16:15	R280230
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		7	mg/L	1	08/07/2020 18:14	R280201
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		0.0937	mg/L	1	08/11/2020 17:29	168102
Barium	NELAP	0.0025		1.18	mg/L	1	08/11/2020 17:29	168102
Beryllium	NELAP	0.0005		0.0084	mg/L	1	08/11/2020 17:29	168102
Boron	NELAP	0.0200		0.0440	mg/L	1	08/12/2020 10:50	168102
Cadmium	NELAP	0.0020		0.0050	mg/L	1	08/11/2020 17:29	168102
Calcium	NELAP	0.100		357	mg/L	1	08/11/2020 17:29	168102
Chromium	NELAP	0.0050		0.198	mg/L	1	08/11/2020 17:29	168102
Cobalt	NELAP	0.0050		0.134	mg/L	1	08/11/2020 17:29	168102
Lead	NELAP	0.0150		0.132	mg/L	1	08/11/2020 17:29	168102
Lithium	NELAP	0.0050		0.143	mg/L	1	08/11/2020 17:29	168102
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	08/11/2020 17:29	168102
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		0.0011	mg/L	5	08/07/2020 18:07	168103
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	08/07/2020 18:07	168103
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	08/07/2020 18:07	168103
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		0.00030	mg/L	1	08/07/2020 10:40	168114
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	08/21/2020 0:00	R280923
Radium-228	*	0		See attached	pci/L	1	08/21/2020 0:00	R280923



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 20071643-007
 Matrix: GROUNDWATER

Work Order: 20071643
 Report Date: 27-Aug-2020

Client Sample ID: AP-6

Collection Date: 08/05/2020 12:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		498.20	ft	1	08/05/2020 12:30	R280186
Depth to water	*	-5.00		7.01	ft	1	08/05/2020 12:30	R280186
Depth to water from measuring point	*	0		9.43	ft	1	08/05/2020 12:30	R280186
Elevation of groundwater surface	*	0		528.39	ft	1	08/05/2020 12:30	R280186
Measuring Point Elevation	*	0		537.82	ft	1	08/05/2020 12:30	R280186
Measuring Point Height Above Land Surface	*	0		2.42	ft	1	08/05/2020 12:30	R280186
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		57.2	°F	1	08/05/2020 12:30	R280186
SW-846 9040B								
pH, Field	*	1.00		7.45		1	08/05/2020 12:30	R280186
SW-846 9050A								
Spec. Conductance, Field	*	1.00		469	µmhos/cm @25C	1	08/05/2020 12:30	R280186
STANDARD METHODS 2540 C (TOTAL) 1997								
Total Dissolved Solids	NELAP	50		165	mg/L	2.5	08/06/2020 14:26	R280107
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		18	mg/L	1	08/07/2020 18:17	R280200
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.39	mg/L	1	08/11/2020 12:48	R280327
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		27	mg/L	1	08/07/2020 18:17	R280201
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/11/2020 17:32	168102
Barium	NELAP	0.0025		0.179	mg/L	1	08/11/2020 17:32	168102
Beryllium	NELAP	0.0005		0.0007	mg/L	1	08/11/2020 17:32	168102
Boron	NELAP	0.0200		0.246	mg/L	1	08/11/2020 17:32	168102
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/11/2020 17:32	168102
Calcium	NELAP	0.100		68.9	mg/L	1	08/11/2020 17:32	168102
Chromium	NELAP	0.0050		0.0151	mg/L	1	08/11/2020 17:32	168102
Cobalt	NELAP	0.0050		0.0106	mg/L	1	08/11/2020 17:32	168102
Lead	NELAP	0.0150		< 0.0150	mg/L	1	08/11/2020 17:32	168102
Lithium	NELAP	0.0050		0.0195	mg/L	1	08/11/2020 17:32	168102
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	08/11/2020 17:32	168102
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	08/07/2020 18:15	168103
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	08/07/2020 18:15	168103
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	08/07/2020 18:15	168103
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/07/2020 10:42	168114
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	08/21/2020 0:00	R280923
Radium-228	*	0		See attached	pci/L	1	08/21/2020 0:00	R280923



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 20071643-008
 Matrix: GROUNDWATER

Work Order: 20071643
 Report Date: 27-Aug-2020

Client Sample ID: AP-7

Collection Date: 08/05/2020 14:20

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		496.50	ft	1	08/05/2020 14:20	R280186
Depth to water	*	-5.00		8.70	ft	1	08/05/2020 14:20	R280186
Depth to water from measuring point	*	0		11.36	ft	1	08/05/2020 14:20	R280186
Elevation of groundwater surface	*	0		527.66	ft	1	08/05/2020 14:20	R280186
Measuring Point Elevation	*	0		539.02	ft	1	08/05/2020 14:20	R280186
Measuring Point Height Above Land Surface	*	0		2.66	ft	1	08/05/2020 14:20	R280186
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		56.5	°F	1	08/05/2020 14:20	R280186
SW-846 9040B								
pH, Field	*	1.00		7.30		1	08/05/2020 14:20	R280186
SW-846 9050A								
Spec. Conductance, Field	*	1.00		796	µmhos/cm @25C	1	08/05/2020 14:20	R280186
STANDARD METHODS 2540 C (TOTAL) 1997								
Total Dissolved Solids	NELAP	20		444	mg/L	1	08/06/2020 14:27	R280107
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		< 10	mg/L	1	08/07/2020 18:25	R280200
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.62	mg/L	1	08/11/2020 12:49	R280327
SW-846 9251 (TOTAL)								
Chloride	NELAP	40		78	mg/L	10	08/07/2020 18:30	R280201
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		0.0429	mg/L	1	08/11/2020 17:36	168102
Barium	NELAP	0.0025		0.167	mg/L	1	08/11/2020 17:36	168102
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	08/11/2020 17:36	168102
Boron	NELAP	0.0200		0.452	mg/L	1	08/11/2020 17:36	168102
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/11/2020 17:36	168102
Calcium	NELAP	0.100		63.6	mg/L	1	08/11/2020 17:36	168102
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/11/2020 17:36	168102
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	08/11/2020 17:36	168102
Lead	NELAP	0.0150		< 0.0150	mg/L	1	08/11/2020 17:36	168102
Lithium	NELAP	0.0050		0.0137	mg/L	1	08/11/2020 17:36	168102
Molybdenum	NELAP	0.0100		0.0106	mg/L	1	08/11/2020 17:36	168102
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	08/07/2020 18:23	168103
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	08/07/2020 18:23	168103
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	08/07/2020 18:23	168103
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/07/2020 10:45	168114
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	08/21/2020 0:00	R280923
Radium-228	*	0		See attached	pci/L	1	08/21/2020 0:00	R280923



Receiving Check List

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

Client: City Water, Light & Power

Work Order: 20071643

Client Project: Ash Pond Monitoring Wells

Report Date: 27-Aug-2020

Carrier: Jordan Evans

Received By: KMT

Completed by:

Amber Dilallo

Reviewed by:

Elizabeth A. Hurley

On:

06-Aug-2020

Amber M. Dilallo

On:

06-Aug-2020

Elizabeth A. Hurley

Pages to follow: Chain of custody

Extra pages included

- Shipping container/cooler in good condition? Yes No Not Present Temp °C **2.4**
- 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.

CHAIN OF CUSTODY

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

Client: City Water, Light & Power
 Address: 201 E. Lake Shore Drive
 City/State/Zip: Springfield IL 62712
 Contact: Eric Staley Phone: (217) 757-8610
 Email: eric.staley@cwlp.com Fax:

Samples on: ICE BLUE ICE NO ICE 2.9 °C
 Preserved in: LAB FIELD FOR LAB USE ONLY
 LAB NOTES:
*not yet installed per Eric Staley, RW 8/1/20, RH 8/1/20

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 Permit on file

Client Comments:
 *elevations, pH, conductivity, temperature
 **Sb Se Tl (ICPMS) As Ba Be B Cd Ca Cr Co Pb Li Hg Mo

PROJECT NAME/NUMBER: Ash Pond Monitoring Wells
 SAMPLE COLLECTOR'S NAME: Jordan Evans

RESULTS REQUESTED: Standard 1-2 Day (100% Surcharge) Other _____
 3 Day (50% Surcharge)
 BILLING INSTRUCTIONS:

# and Type of Containers		INDICATE ANALYSIS REQUESTED																	
UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228						
2	2								✓	✓	✓	✓	✓						
2	2								✓	✓	✓	✓	✓						
2	2								✓	✓	✓	✓	✓						
2	2								✓	✓	✓	✓	✓						
2	2								✓	✓	✓	✓	✓						
2	2								✓	✓	✓	✓	✓						
2	2								✓	✓	✓	✓	✓						
2	2								✓	✓	✓	✓	✓						
2	2								✓	✓	✓	✓	✓						
2	2								✓	✓	✓	✓	✓						

Lab Use Only	Sample ID	Date/Time Sampled	Matrix
<u>20071643</u>	RW-3	<u>8/5/20 1100</u>	Groundwater
<u>002</u>	AP-1	<u>8/5/20 1253</u>	Groundwater
<u>003</u>	AP-2	<u>8/5/20 1310</u>	Groundwater
<u>004</u>	AP-3	<u>8/5/20 1326</u>	Groundwater
<u>005</u>	AP-4	<u>8/6/20 910</u>	Groundwater
<u>006</u>	AP-5	<u>8/6/20 925</u>	Groundwater
<u>007</u>	AP-6 (GP6) AP-6	<u>8/5/20 1230</u>	Groundwater
<u>008</u>	AP-7 (GP-2) AP-7	<u>8/5/20 1420</u>	Groundwater
<u>009</u>	AP-8 *		Groundwater
<u>010</u>	AP-9 *		Groundwater
<u>011</u>	AP-10 *		Groundwater

Relinquished By	Date/Time	Received By	Date/Time
<u>[Signature]</u>	<u>8/6/20 1210</u>	<u>[Signature]</u>	<u>8/6/20 1210</u>

*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

TEKLAB, INC. FIELD INFORMATION FORM

SITE NAME: CWLP

SAMPLE COLLECTOR: Jordan Evans

QUARTER/YEAR: Q3 2020

SAMPLING POINT: RW-3

Well Dry

PURGE DATE	START PURGE TIME	ELAPSED HOURS	WATER VOL. IN CASING (gallons)	ACTUAL VOL. PURGED (gallons)
8/5/20	1100		5.4	6.0

	YES	NO
Micro Purge		X
Purge Equipment Dedicated		X
Sampling Equipment Dedicated		X

A	Bailer – Teflon	H	Peristaltic Pump
C	Bailer – Polypropylene/Polyethylene	I	Submersible Pump
F	Bailer – Stainless Steel	L	Bladder Pump
Purging Device		I	Sampling Device
			I

A	Teflon	D	Polypropylene
B	Tygon	E	Polyethylene
C	Rope X (Specify)		
Purging Tubing		A	Sampling Tubing
			A

A	Inline Disposable	B	Pressure
Field Filtering	YES	NO	Filtering Device Used
			A

Depth to Water (ft)	11.01	Well Depth (ft)	44.01
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GALLONS	pH (std)	CONDUCTIVITY (um/cm)	TEMP (C)
1.0	7.33	642	13.9
2.0	7.32	650	13.7
3.0	7.29	650	13.8

APPEARANCE	SL cloudy	ODOR	none
COLOR	none	TURBIDITY	mod

Comments: _____

TEKLAB, INC. FIELD INFORMATION FORM

SITE NAME: CWLP

SAMPLE COLLECTOR: Jordan Evans

QUARTER/YEAR: Q3 2020

SAMPLING POINT: AP-1

Well Dry

PURGE DATE	START PURGE TIME	ELAPSED HOURS	WATER VOL. IN CASING (gallons)	ACTUAL VOL. PURGED (gallons)
8/5/20	1253		3.3	7.0

	YES	NO
Micro Purge		X
Purge Equipment Dedicated		X
Sampling Equipment Dedicated		X

A	Bailer – Teflon	H	Peristaltic Pump
C	Bailer – Polypropylene/Polyethylene	I	Submersible Pump
F	Bailer – Stainless Steel	L	Bladder Pump
Purging Device		I	Sampling Device

A	Teflon	D	Polypropylene
B	Tygon	E	Polyethylene
C	Rope X (Specify)		
Purging Tubing		A	Sampling Tubing

A	Inline Disposable	B	Pressure
Field Filtering	YES	NO	Filtering Device Used

Depth to Water (ft)	10.85	Well Depth (ft)	31.08
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GALLONS	pH (std)	CONDUCTIVITY (um/cm)	TEMP (C)
2.0	6.82	1549	14.0
3.0	6.80	1558	14.0
4.0	6.80	1559	14.0

APPEARANCE	Clear	ODOR	none
COLOR	none	TURBIDITY	none

Comments: _____

TEKLAB, INC. FIELD INFORMATION FORM

SITE NAME: CWLP

SAMPLE COLLECTOR: Jordan Evans

QUARTER/YEAR: Q3 2020

SAMPLING POINT: AP-2

Well Dry

PURGE DATE	START PURGE TIME	ELAPSED HOURS	WATER VOL. IN CASING (gallons)	ACTUAL VOL. PURGED (gallons)
8/5/20	1310		2.1	6.0

	YES	NO
Micro Purge		X
Purge Equipment Dedicated		X
Sampling Equipment Dedicated		X

A	Bailer – Teflon	H	Peristaltic Pump
C	Bailer – Polypropylene/Polyethylene	I	Submersible Pump
F	Bailer – Stainless Steel	L	Bladder Pump
Purging Device		I	Sampling Device
			I

A	Teflon	D	Polypropylene
B	Tygon	E	Polyethylene
C	Rope X (Specify)		
Purging Tubing		A	Sampling Tubing
			A

A	Inline Disposable	B	Pressure
Field Filtering	YES	NO	Filtering Device Used
			<u> </u>

Depth to Water (ft)	8.02	Well Depth (ft)	21.33
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GALLONS	pH (std)	CONDUCTIVITY (um/cm)	TEMP (C)
2.0	6.69	1504	14.8
3.0	6.66	1509	14.7
4.0	6.66	1527	14.7

APPEARANCE	Clear	ODOR	None
COLOR	None	TURBIDITY	None

Comments: _____

TEKLAB, INC. FIELD INFORMATION FORM

SITE NAME: CWLP

SAMPLE COLLECTOR: Jordan Evans

QUARTER/YEAR: Q3 2020

SAMPLING POINT: AP-3

Well Dry

PURGE DATE	START PURGE TIME	ELAPSED HOURS	WATER VOL. IN CASING (gallons)	ACTUAL VOL. PURGED (gallons)
8/5/20	1326		1.9	5.0

	YES	NO
Micro Purge		X
Purge Equipment Dedicated		X
Sampling Equipment Dedicated		X

A	Bailer – Teflon	H	Peristaltic Pump
C	Bailer – Polypropylene/Polyethylene	I	Submersible Pump
F	Bailer – Stainless Steel	L	Bladder Pump
Purging Device		I	Sampling Device
			I

A	Teflon	D	Polypropylene
B	Tygon	E	Polyethylene
C	Rope X (Specify)		
Purging Tubing		A	Sampling Tubing
			A

A	Inline Disposable	B	Pressure
Field Filtering	YES	NO	Filtering Device Used
			—

Depth to Water (ft)	9.55	Well Depth (ft)	20.95
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GALLONS	pH (std)	CONDUCTIVITY (um/cm)	TEMP (C)
1.0	6.81	992	15.5
2.0	6.81	995	15.6
3.0	6.78	998	15.7

APPEARANCE	clear	ODOR	none
COLOR	none	TURBIDITY	none

Comments: _____

TEKLAB, INC. FIELD INFORMATION FORM

SITE NAME: CWLP

SAMPLE COLLECTOR: Jordan Evans

QUARTER/YEAR: Q3 2020

SAMPLING POINT: AP-4

Well Dry

PURGE DATE	START PURGE TIME	ELAPSED HOURS	WATER VOL. IN CASING (gallons)	ACTUAL VOL. PURGED (gallons)
8/16/20	9:10		8.4	8.0

	YES	NO
Micro Purge		X
Purge Equipment Dedicated		X
Sampling Equipment Dedicated		X

A	Bailer – Teflon	H	Peristaltic Pump
C	Bailer – Polypropylene/Polyethylene	I	Submersible Pump
F	Bailer – Stainless Steel	L	Bladder Pump
Purging Device		I	Sampling Device
			I

A	Teflon	D	Polypropylene
B	Tygon	E	Polyethylene
C	Rope X (Specify)		
Purging Tubing		A	Sampling Tubing
			A

A	Inline Disposable	B	Pressure
Field Filtering	YES	NO	Filtering Device Used
			—

Depth to Water (ft)	8.92	Well Depth (ft)	60.41
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GALLONS	pH (std)	CONDUCTIVITY (um/cm)	TEMP (C)
4.0	6.64	813	15.8
5.0	6.66	812	15.8
6.0	6.67	812	15.8

APPEARANCE	Clear	ODOR	None
COLOR	None	TURBIDITY	None

Comments: _____

TEKLAB, INC. FIELD INFORMATION FORM

SITE NAME: CWLP

SAMPLE COLLECTOR: Jordan Evans

QUARTER/YEAR: Q3 2020

SAMPLING POINT: AP-5

Well Dry

PURGE DATE	START PURGE TIME	ELAPSED HOURS	WATER VOL. IN CASING (gallons)	ACTUAL VOL. PURGED (gallons)
8/6/20	935		2.2	7.0

	YES	NO
Micro Purge		X
Purge Equipment Dedicated		X
Sampling Equipment Dedicated		X

A	Bailer – Teflon	H	Peristaltic Pump
C	Bailer – Polypropylene/Polyethylene	I	Submersible Pump
F	Bailer – Stainless Steel	L	Bladder Pump
Purging Device		I	Sampling Device
			I

A	Teflon	D	Polypropylene
B	Tygon	E	Polyethylene
C	Rope X (Specify)		
Purging Tubing		A	Sampling Tubing
			A

A	Inline Disposable	B	Pressure
Field Filtering	YES	NO	Filtering Device Used
			—

Depth to Water (ft)	17.83	Well Depth (ft)	31.27
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GALLONS	pH (std)	CONDUCTIVITY (um/cm)	TEMP (C)
2.0	7.37	541	12.7
3.0	7.35	549	12.6
4.0	7.32	558	12.7

APPEARANCE	Cloudy	ODOR	none
COLOR	LT Brown	TURBIDITY	mod

Comments: _____

TEKLAB, INC. FIELD INFORMATION FORM

SITE NAME: CWLP

SAMPLE COLLECTOR: Jordan Evans

QUARTER/YEAR: Q3 2020

SAMPLING POINT: AP6 (GP6)

Well Dry

PURGE DATE	START PURGE TIME	ELAPSED HOURS	WATER VOL. IN CASING (gallons)	ACTUAL VOL. PURGED (gallons)
8/5/20	1230		4.9	6.0

	YES	NO
Micro Purge		X
Purge Equipment Dedicated		X
Sampling Equipment Dedicated		X

A	Bailer – Teflon	H	Peristaltic Pump
C	Bailer – Polypropylene/Polyethylene	I	Submersible Pump
F	Bailer – Stainless Steel	L	Bladder Pump
Purging Device		I	Sampling Device
			I

A	Teflon	D	Polypropylene
B	Tygon	E	Polyethylene
C	Rope X (Specify)		
Purging Tubing		A	Sampling Tubing
			A

A	Inline Disposable	B	Pressure
Field Filtering	YES	<u>NO</u>	Filtering Device Used
			—

Depth to Water (ft)	9.43	Well Depth (ft)	39.62
----------------------------	------	------------------------	-------

GALLONS	pH (std)	CONDUCTIVITY (um/cm)	TEMP (C)
1.0	7.59	498	13.9
2.0	7.48	490	13.6
3.0	7.46	478	13.8
4.0	7.45	469	14.0

APPEARANCE	SL Cloudy	ODOR	None
COLOR	None	TURBIDITY	Mod

Comments: _____

TEKLAB, INC. FIELD INFORMATION FORM

SITE NAME: CWLP

SAMPLE COLLECTOR: Jordan Evans

QUARTER/YEAR: Q3 2020

SAMPLING POINT: AP 7

Well Dry

PURGE DATE	START PURGE TIME	ELAPSED HOURS	WATER VOL. IN CASING (gallons)	ACTUAL VOL. PURGED (gallons)
8/5/20	1420			6.0

	YES	NO
Micro Purge		X
Purge Equipment Dedicated		X
Sampling Equipment Dedicated		X

A	Bailer – Teflon	H	Peristaltic Pump
C	Bailer – Polypropylene/Polyethylene	I	Submersible Pump
F	Bailer – Stainless Steel	L	Bladder Pump
Purging Device		I	Sampling Device
			I

A	Teflon	D	Polypropylene
B	Tygon	E	Polyethylene
C	Rope X (Specify)		
Purging Tubing		A	Sampling Tubing
			A

A	Inline Disposable	B	Pressure
Field Filtering	YES	NO	Filtering Device Used
			—

Depth to Water (ft)	11.36	Well Depth (ft)	42.52
---------------------	-------	-----------------	-------

GALLONS	pH (std)	CONDUCTIVITY (um/cm)	TEMP (C)
2.0	7.30	809	13.7
3.0	7.30	799	13.2
4.0	7.30	796	13.6

APPEARANCE	Clear	ODOR	None
COLOR	None	TURBIDITY	None

Comments: _____

August 27, 2020

Ms. Shelly Hennessy
Teklab Inc.
5445 Horseshoe Lake Road
Collinsville, IL 62234

RE: Project: 20071643
Pace Project No.: 30376688

Dear Ms. Hennessy:

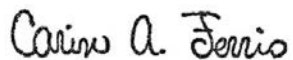
Enclosed are the analytical results for sample(s) received by the laboratory on August 10, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Carin Ferris
carin.ferris@pacelabs.com
724-850-5615
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 20071643

Pace Project No.: 30376688

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 9526

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 20071643

Pace Project No.: 30376688

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30376688001	20071643-001	Water	08/05/20 11:00	08/10/20 09:15
30376688002	20071643-002	Water	08/05/20 12:53	08/10/20 09:15
30376688003	20071643-003	Water	08/05/20 13:10	08/10/20 09:15
30376688004	20071643-004	Water	08/05/20 13:26	08/10/20 09:15
30376688005	20071643-005	Water	08/06/20 09:10	08/10/20 09:15
30376688006	20071643-006	Water	08/06/20 09:35	08/10/20 09:15
30376688007	20071643-007	Water	08/05/20 12:30	08/10/20 09:15
30376688008	20071643-008	Water	08/05/20 14:20	08/10/20 09:15

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 20071643
Pace Project No.: 30376688

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30376688001	20071643-001	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
30376688002	20071643-002	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
30376688003	20071643-003	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
30376688004	20071643-004	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
30376688005	20071643-005	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
30376688006	20071643-006	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
30376688007	20071643-007	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
30376688008	20071643-008	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 20071643

Pace Project No.: 30376688

Method: EPA 903.1

Description: 903.1 Radium 226

Client: Teklab Inc.

Date: August 27, 2020

General Information:

8 samples were analyzed for EPA 903.1 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 20071643
Pace Project No.: 30376688

Method: EPA 904.0
Description: 904.0 Radium 228
Client: Teklab Inc.
Date: August 27, 2020

General Information:

8 samples were analyzed for EPA 904.0 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 20071643

Pace Project No.: 30376688

Method: Total Radium Calculation

Description: Total Radium 228+226

Client: Teklab Inc.

Date: August 27, 2020

General Information:

8 samples were analyzed for Total Radium Calculation by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 20071643

Pace Project No.: 30376688

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: 20071643-001 Lab ID: 30376688001 Collected: 08/05/20 11:00 Received: 08/10/20 09:15 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	1.16 ± 0.770 (0.349) C:NA T:87%	pCi/L	08/26/20 16:16	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	2.65 ± 0.966 (1.41) C:71% T:89%	pCi/L	08/21/20 11:55	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	3.81 ± 1.74 (1.76)	pCi/L	08/27/20 09:35	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 20071643

Pace Project No.: 30376688

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: 20071643-002 Lab ID: 30376688002 Collected: 08/05/20 12:53 Received: 08/10/20 09:15 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.964 ± 0.578 (0.765) C:NA T:89%	pCi/L	08/26/20 16:16	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	1.90 ± 0.752 (1.18) C:65% T:88%	pCi/L	08/21/20 15:15	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	2.86 ± 1.33 (1.95)	pCi/L	08/27/20 09:35	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 20071643

Pace Project No.: 30376688

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: 20071643-003 Lab ID: 30376688003 Collected: 08/05/20 13:10 Received: 08/10/20 09:15 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	-0.102 ± 0.246 (0.615) C:NA T:92%	pCi/L	08/26/20 16:16	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	1.73 ± 0.636 (0.972) C:70% T:85%	pCi/L	08/21/20 15:15	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.73 ± 0.882 (1.59)	pCi/L	08/27/20 09:35	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 20071643

Pace Project No.: 30376688

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: 20071643-004 Lab ID: 30376688004 Collected: 08/05/20 13:26 Received: 08/10/20 09:15 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.139 ± 0.273 (0.499) C:NA T:97%	pCi/L	08/26/20 16:16	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.0462 ± 0.381 (0.875) C:71% T:86%	pCi/L	08/21/20 15:15	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.185 ± 0.654 (1.37)	pCi/L	08/27/20 09:35	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 20071643
Pace Project No.: 30376688

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.763 ± 0.572 (0.818) C:NA T:90%	pCi/L	08/26/20 16:16	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	1.20 ± 0.539 (0.909) C:67% T:86%	pCi/L	08/21/20 15:15	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.96 ± 1.11 (1.73)	pCi/L	08/27/20 09:35	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 20071643

Pace Project No.: 30376688

Sample: 20071643-006 **Lab ID: 30376688006** Collected: 08/06/20 09:35 Received: 08/10/20 09:15 Matrix: Water

PWS: Site ID: Sample Type:

Comments: • Upon receipt at the laboratory, 2.5 mls of nitric acid were added to the sample to meet the sample preservation requirement of pH <2 for radiochemistry analysis.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	1.61 ± 1.00 (0.986) C:NA T:87%	pCi/L	08/26/20 16:16	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	4.26 ± 1.55 (2.24) C:69% T:59%	pCi/L	08/21/20 15:15	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	5.87 ± 2.55 (3.23)	pCi/L	08/27/20 09:35	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 20071643

Pace Project No.: 30376688

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: 20071643-007 Lab ID: 30376688007 Collected: 08/05/20 12:30 Received: 08/10/20 09:15 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.440 ± 0.671 (1.08) C:NA T:85%	pCi/L	08/26/20 16:16	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	2.59 ± 1.25 (2.26) C:72% T:80%	pCi/L	08/21/20 15:20	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	3.03 ± 1.92 (3.34)	pCi/L	08/27/20 09:35	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 20071643

Pace Project No.: 30376688

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: 20071643-008 Lab ID: 30376688008 Collected: 08/05/20 14:20 Received: 08/10/20 09:15 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.0480 ± 0.312 (0.630) C:NA T:94%	pCi/L	08/26/20 16:29	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	1.02 ± 0.550 (1.02) C:70% T:87%	pCi/L	08/21/20 15:20	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.07 ± 0.862 (1.65)	pCi/L	08/27/20 09:35	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 20071643

Pace Project No.: 30376688

QC Batch: 409045

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30376688001, 30376688002, 30376688003, 30376688004, 30376688005, 30376688006, 30376688007, 30376688008

METHOD BLANK: 1979797

Matrix: Water

Associated Lab Samples: 30376688001, 30376688002, 30376688003, 30376688004, 30376688005, 30376688006, 30376688007, 30376688008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.985 ± 0.512 (0.905) C:74% T:73%	pCi/L	08/21/20 11:29	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 20071643
Pace Project No.: 30376688

QC Batch:	409046	Analysis Method:	EPA 903.1
QC Batch Method:	EPA 903.1	Analysis Description:	903.1 Radium-226
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 30376688001, 30376688002, 30376688003, 30376688004, 30376688005, 30376688006, 30376688007, 30376688008

METHOD BLANK: 1979799 Matrix: Water

Associated Lab Samples: 30376688001, 30376688002, 30376688003, 30376688004, 30376688005, 30376688006, 30376688007, 30376688008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0781 ± 0.306 (0.586) C:NA T:91%	pCi/L	08/26/20 15:30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 20071643
Pace Project No.: 30376688

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.

Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

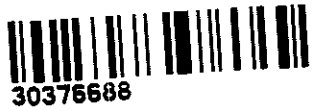
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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WO#: 30376688



TEKLAB, INC. Chain of Custody

ake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES NO With: Ice Blue Ice Preserved in: Lab Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: Sampler: Jordan Evans QC Level: 2

Project#: 20071643

Comments: Please Issue reports and invoices via email only

Please analyze for Radium (226, 228, and combined) by method EPA903.0/904.0 on your standard turnaround time.

Batch QC and CCR EDD are required with the report. Receipt summary requested.

Changes to analysis/methods must be approved by Teklab, Inc.

Contact: Shelly Hennessy
Requested Due Date: 20 business days or less

Email: shennessy@teklabinc.com
Billing/PO: 30073

Phone: (618) 344-1004 ext. 36

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Table with columns: Lab Use, Sample ID, Sample Date/Time, Preservative, Matrix, Radium 226, Radium 228, Combined Radium, and 10 empty columns. Rows include samples 001 through 008 and Unpres Aqueous samples.

Table with columns: *Relinquished By, Date/Time, Received By, Date/Time. Includes handwritten entries for FedEx and a signature.

Resp. to Reports, S&Ppl. #5
CWLP - 30436

Pittsburgh Lab Sample Condition Upon Receipt



Client Name: Teklab

Project # 30376688

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: 1821 4511 5740

Label	JSM
LIMS Login	JSM

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Thermometer Used _____ Type of Ice: Wet Blue None

Cooler Temperature _____ Observed Temp _____ °C Correction Factor: _____ °C Final Temp: _____ °C

Temp should be above freezing to 6°C

Comments:	Yes	No	N/A	pH paper Lot#	Date and Initials of person examining contents:
				10DS191	JSM 8/11/2000
Chain of Custody Present:	/			1.	
Chain of Custody Filled Out:	/			2.	
Chain of Custody Relinquished:	/			3.	
Sampler Name & Signature on COC:	/			4.	
Sample Labels match COC:	/			5.	
-Includes date/time/ID Matrix: <u>WT</u>					
Samples Arrived within Hold Time:	/			6.	
Short Hold Time Analysis (<72hr remaining):	/			7.	
Rush Turn Around Time Requested:	/			8.	
Sufficient Volume:	/			9.	
Correct Containers Used:	/			10.	
-Pace Containers Used:	/				
Containers Intact:	/			11.	
Orthophosphate field filtered			/	12.	
Hex Cr Aqueous sample field filtered			/	13.	
Organic Samples checked for dechlorination:			/	14.	
Filtered volume received for Dissolved tests			/	15.	
All containers have been checked for preservation.	/			16.	
exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix					
All containers meet method preservation requirements.				Initial when completed	JSM
				Date/time of preservation	8/11/2000 0945
				Lot # of added preservative	DL20-0730
Headspace in VOA Vials (>6mm):				17.	
Trip Blank Present:				18.	
Trip Blank Custody Seals Present					
Rad Samples Screened < 0.5 mrem/hr				Initial when completed:	Date:

PHK 2 2.5 ml HNO3 added to sample 20071643-008

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

A check in this box indicates that additional information has been stored in ereports.

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

March 16, 2022

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615



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

RE: Ash Pond Monitoring Wells

WorkOrder: 22011434

Dear Eric Staley:

TEKLAB, INC received 15 samples on 2/17/2022 6:23:00 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,



Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com



Report Contents

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

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 22011434
Report Date: 16-Mar-22

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	22
Chain of Custody	Appended

Client: City Water, Light & Power

Work Order: 22011434

Client Project: Ash Pond Monitoring Wells

Report Date: 16-Mar-22

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: City Water, Light & Power

Work Order: 22011434

Client Project: Ash Pond Monitoring Wells

Report Date: 16-Mar-22

Qualifiers

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



Case Narrative

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

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 22011434
Report Date: 16-Mar-22

Cooler Receipt Temp: 2.8 °C

An employee of Teklab, Inc. collected the sample(s). AP-10 could not be collected; the sampling point was frozen.

Radium-226 and Radium-228 analysis was performed by Summit Environmental Technologies, Inc. See attached report for results.

Locations

Collinsville

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

Collinsville Air

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

Springfield

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

Chicago

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

Kansas City

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



Accreditations

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

Client: City Water, Light & Power

Work Order: 22011434

Client Project: Ash Pond Monitoring Wells

Report Date: 16-Mar-22

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2023	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2022	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2022	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2022	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2022	Collinsville
Arkansas	ADEQ	88-0966		3/14/2023	Collinsville
Illinois	IDPH	17584		5/31/2023	Collinsville
Kentucky	UST	0073		1/31/2023	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 22011434-001
 Matrix: GROUNDWATER

Work Order: 22011434
 Report Date: 16-Mar-22

Client Sample ID: RW-3

Collection Date: 02/16/2022 13:34

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		495.49	ft	1	02/16/2022 13:34	R307535
Depth to water	*	-5.00		7.16	ft	1	02/16/2022 13:34	R307535
Depth to water from measuring point	*	0		9.86	ft	1	02/16/2022 13:34	R307535
Elevation of groundwater surface	*	0		529.64	ft	1	02/16/2022 13:34	R307535
Measuring Point Elevation	*	0		539.50	ft	1	02/16/2022 13:34	R307535
Measuring Point Height Above Land Surface	*	0		2.70	ft	1	02/16/2022 13:34	R307535
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		5.6	NTU	1	02/16/2022 13:34	R307535
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		55.4	°F	1	02/16/2022 13:34	R307535
SW-846 9040B								
pH, Field	*	1.00		7.27		1	02/16/2022 13:34	R307535
SW-846 9050A								
Spec. Conductance, Field	*	1.00		1090	µmhos/cm @25C	1	02/16/2022 13:34	R307535
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		408	mg/L	1	02/17/2022 12:54	R307297
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		10	mg/L	1	02/22/2022 19:39	R307405
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.47	mg/L	1	02/17/2022 9:55	R307231
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		29	mg/L	1	02/22/2022 19:39	R307406
<i>Sample result exceeds 10 times the CCB contamination. Data is reportable per the TNI Standard.</i>								
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		0.178	mg/L	1	02/18/2022 15:35	187816
Barium	NELAP	0.0025		0.154	mg/L	1	02/18/2022 15:35	187816
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	02/18/2022 15:35	187816
Boron	NELAP	0.0200		0.179	mg/L	1	02/18/2022 15:35	187816
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	02/18/2022 15:35	187816
Calcium	NELAP	0.100		72.7	mg/L	1	02/18/2022 15:35	187816
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	02/18/2022 15:35	187816
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	02/18/2022 15:35	187816
Lead	NELAP	0.0150		< 0.0150	mg/L	1	02/18/2022 15:35	187816
Lithium	NELAP	0.0050		0.0066	mg/L	1	02/18/2022 15:35	187816
Molybdenum	NELAP	0.0100		0.0103	mg/L	1	02/18/2022 15:35	187816
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	03/05/2022 3:09	187816
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	02/25/2022 2:56	187816
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	02/25/2022 2:56	187816
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	02/17/2022 14:07	187817
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	03/03/2022 0:00	R308076
Radium-228	*	0		See attached	pci/L	1	03/03/2022 0:00	R308076



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 22011434-002
 Matrix: GROUNDWATER

Work Order: 22011434
 Report Date: 16-Mar-22

Client Sample ID: AP-1

Collection Date: 02/15/2022 11:55

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		504.29	ft	1	02/15/2022 11:55	R307535
Depth to water	*	-5.00		7.05	ft	1	02/15/2022 11:55	R307535
Depth to water from measuring point	*	0		9.32	ft	1	02/15/2022 11:55	R307535
Elevation of groundwater surface	*	0		526.05	ft	1	02/15/2022 11:55	R307535
Measuring Point Elevation	*	0		535.37	ft	1	02/15/2022 11:55	R307535
Measuring Point Height Above Land Surface	*	0		2.27	ft	1	02/15/2022 11:55	R307535
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		3.4	NTU	1	02/15/2022 11:55	R307535
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		57.2	°F	1	02/15/2022 11:55	R307535
SW-846 9040B								
pH, Field	*	1.00		6.57		1	02/15/2022 11:55	R307535
SW-846 9050A								
Spec. Conductance, Field	*	1.00		2580	µmhos/cm @25C	1	02/15/2022 11:55	R307535
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		1490	mg/L	1	02/17/2022 12:55	R307297
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		732	mg/L	20	02/22/2022 19:48	R307405
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.20	mg/L	1	02/17/2022 9:56	R307231
SW-846 9251 (TOTAL)								
Chloride	NELAP	2		55	mg/L	2	02/22/2022 19:41	R307406
<i>Sample result exceeds 10 times the CCB contamination. Data is reportable per the TNI Standard.</i>								
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	02/18/2022 15:36	187816
Barium	NELAP	0.0025		0.277	mg/L	1	02/18/2022 15:36	187816
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	02/18/2022 15:36	187816
Boron	NELAP	0.0400		22.3	mg/L	2	02/22/2022 15:38	187816
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	02/18/2022 15:36	187816
Calcium	NELAP	0.100		245	mg/L	1	02/18/2022 15:36	187816
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	02/18/2022 15:36	187816
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	02/18/2022 15:36	187816
Lead	NELAP	0.0150		< 0.0150	mg/L	1	02/18/2022 15:36	187816
Lithium	NELAP	0.0050		0.0098	mg/L	1	02/18/2022 15:36	187816
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	02/18/2022 15:36	187816
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	03/05/2022 3:16	187816
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	02/25/2022 3:03	187816
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	02/25/2022 3:03	187816
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	02/17/2022 14:10	187817
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	03/03/2022 0:00	R308076
Radium-228	*	0		See attached	pci/L	1	03/03/2022 0:00	R308076



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 22011434-003
 Matrix: GROUNDWATER

Work Order: 22011434
 Report Date: 16-Mar-22

Client Sample ID: AP-2

Collection Date: 02/15/2022 11:31

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		514.77	ft	1	02/15/2022 11:31	R307535
Depth to water	*	-5.00		3.71	ft	1	02/15/2022 11:31	R307535
Depth to water from measuring point	*	0		6.21	ft	1	02/15/2022 11:31	R307535
Elevation of groundwater surface	*	0		529.89	ft	1	02/15/2022 11:31	R307535
Measuring Point Elevation	*	0		536.10	ft	1	02/15/2022 11:31	R307535
Measuring Point Height Above Land Surface	*	0		2.50	ft	1	02/15/2022 11:31	R307535
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		5.9	NTU	1	02/15/2022 11:31	R307535
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		55.2	°F	1	02/15/2022 11:31	R307535
SW-846 9040B								
pH, Field	*	1.00		6.43		1	02/15/2022 11:31	R307535
SW-846 9050A								
Spec. Conductance, Field	*	1.00		2320	µmhos/cm @25C	1	02/15/2022 11:31	R307535
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		1310	mg/L	1	02/17/2022 12:56	R307297
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		583	mg/L	20	02/22/2022 19:56	R307405
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.24	mg/L	1	02/17/2022 9:58	R307231
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		36	mg/L	1	02/22/2022 19:49	R307406
<i>Sample result exceeds 10 times the CCB contamination. Data is reportable per the TNI Standard.</i>								
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	02/18/2022 15:38	187816
Barium	NELAP	0.0025		0.0721	mg/L	1	02/18/2022 15:38	187816
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	02/18/2022 15:38	187816
Boron	NELAP	0.0200		4.68	mg/L	1	02/18/2022 15:38	187816
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	02/18/2022 15:38	187816
Calcium	NELAP	0.100		265	mg/L	1	02/18/2022 15:38	187816
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	02/18/2022 15:38	187816
Cobalt	NELAP	0.0050		0.0102	mg/L	1	02/18/2022 15:38	187816
Lead	NELAP	0.0150		< 0.0150	mg/L	1	02/18/2022 15:38	187816
Lithium	NELAP	0.0050		0.0057	mg/L	1	02/18/2022 15:38	187816
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	02/18/2022 15:38	187816
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	03/05/2022 3:23	187816
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	02/25/2022 3:11	187816
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	02/25/2022 3:11	187816
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	02/17/2022 14:12	187817
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	03/03/2022 0:00	R308076
Radium-228	*	0		See attached	pci/L	1	03/03/2022 0:00	R308076



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 22011434-004
 Matrix: GROUNDWATER

Work Order: 22011434
 Report Date: 16-Mar-22

Client Sample ID: AP-3

Collection Date: 02/15/2022 11:08

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		514.45	ft	1	02/15/2022 11:08	R307535
Depth to water	*	-5.00		6.72	ft	1	02/15/2022 11:08	R307535
Depth to water from measuring point	*	0		8.42	ft	1	02/15/2022 11:08	R307535
Elevation of groundwater surface	*	0		526.98	ft	1	02/15/2022 11:08	R307535
Measuring Point Elevation	*	0		535.40	ft	1	02/15/2022 11:08	R307535
Measuring Point Height Above Land Surface	*	0		1.70	ft	1	02/15/2022 11:08	R307535
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		8.3	NTU	1	02/15/2022 11:08	R307535
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		55.2	°F	1	02/15/2022 11:08	R307535
SW-846 9040B								
pH, Field	*	1.00		6.60		1	02/15/2022 11:08	R307535
SW-846 9050A								
Spec. Conductance, Field	*	1.00		1590	µmhos/cm @25C	1	02/15/2022 11:08	R307535
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		882	mg/L	1	02/17/2022 12:57	R307297
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		410	mg/L	10	02/22/2022 20:02	R307405
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.21	mg/L	1	02/17/2022 10:00	R307231
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		42	mg/L	1	02/22/2022 19:57	R307406
<i>Sample result exceeds 10 times the CCB contamination. Data is reportable per the TNI Standard.</i>								
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	02/18/2022 15:40	187816
Barium	NELAP	0.0025		0.0802	mg/L	1	02/18/2022 15:40	187816
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	02/18/2022 15:40	187816
Boron	NELAP	0.0200		15.8	mg/L	1	02/18/2022 15:40	187816
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	02/18/2022 15:40	187816
Calcium	NELAP	0.100		150	mg/L	1	02/18/2022 15:40	187816
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	02/18/2022 15:40	187816
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	02/18/2022 15:40	187816
Lead	NELAP	0.0150		< 0.0150	mg/L	1	02/18/2022 15:40	187816
Lithium	NELAP	0.0050		0.0053	mg/L	1	02/18/2022 15:40	187816
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	02/18/2022 15:40	187816
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	03/05/2022 3:29	187816
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	02/25/2022 3:19	187816
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	02/25/2022 3:19	187816
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	02/17/2022 14:14	187817
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	03/03/2022 0:00	R308076
Radium-228	*	0		See attached	pci/L	1	03/03/2022 0:00	R308076



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 22011434-005
 Matrix: GROUNDWATER

Work Order: 22011434
 Report Date: 16-Mar-22

Client Sample ID: AP-4

Collection Date: 02/16/2022 10:05

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		498.79	ft	1	02/16/2022 10:05	R307535
Depth to water	*	-5.00		3.12	ft	1	02/16/2022 10:05	R307535
Depth to water from measuring point	*	0		8.42	ft	1	02/16/2022 10:05	R307535
Elevation of groundwater surface	*	0		550.78	ft	1	02/16/2022 10:05	R307535
Measuring Point Elevation	*	0		559.20	ft	1	02/16/2022 10:05	R307535
Measuring Point Height Above Land Surface	*	0		5.30	ft	1	02/16/2022 10:05	R307535
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		49	NTU	1	02/16/2022 10:05	R307535
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		57.0	°F	1	02/16/2022 10:05	R307535
SW-846 9040B								
pH, Field	*	1.00		6.92		1	02/16/2022 10:05	R307535
SW-846 9050A								
Spec. Conductance, Field	*	1.00		1350	µmhos/cm @25C	1	02/16/2022 10:05	R307535
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		496	mg/L	1	02/17/2022 12:58	R307297
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		< 10	mg/L	1	02/22/2022 20:05	R307405
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.14	mg/L	1	02/17/2022 10:01	R307231
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		12	mg/L	1	02/23/2022 13:44	R307435
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		0.0306	mg/L	1	02/18/2022 15:54	187816
Barium	NELAP	0.0025		0.413	mg/L	1	02/18/2022 15:54	187816
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	02/18/2022 15:54	187816
Boron	NELAP	0.0200		0.0954	mg/L	1	02/18/2022 15:54	187816
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	02/18/2022 15:54	187816
Calcium	NELAP	0.100		123	mg/L	1	02/18/2022 15:54	187816
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	02/18/2022 15:54	187816
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	02/18/2022 15:54	187816
Lead	NELAP	0.0150		< 0.0150	mg/L	1	02/18/2022 15:54	187816
Lithium	NELAP	0.0050		0.0092	mg/L	1	02/18/2022 15:54	187816
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	02/18/2022 15:54	187816
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	03/05/2022 3:36	187816
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	02/25/2022 3:26	187816
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	02/25/2022 3:26	187816
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	02/17/2022 14:26	187817
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	03/03/2022 0:00	R308076
Radium-228	*	0		See attached	pci/L	1	03/03/2022 0:00	R308076



Laboratory Results

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Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 22011434-006
 Matrix: GROUNDWATER

Work Order: 22011434
 Report Date: 16-Mar-22

Client Sample ID: AP-5

Collection Date: 02/16/2022 10:37

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		552.63	ft	1	02/16/2022 10:37	R307535
Depth to water	*	-5.00		10.11	ft	1	02/16/2022 10:37	R307535
Depth to water from measuring point	*	0		12.41	ft	1	02/16/2022 10:37	R307535
Elevation of groundwater surface	*	0		571.49	ft	1	02/16/2022 10:37	R307535
Measuring Point Elevation	*	0		583.90	ft	1	02/16/2022 10:37	R307535
Measuring Point Height Above Land Surface	*	0		2.30	ft	1	02/16/2022 10:37	R307535
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		3.4	NTU	1	02/16/2022 10:37	R307535
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		54.7	°F	1	02/16/2022 10:37	R307535
SW-846 9040B								
pH, Field	*	1.00		7.01		1	02/16/2022 10:37	R307535
SW-846 9050A								
Spec. Conductance, Field	*	1.00		1010	µmhos/cm @25C	1	02/16/2022 10:37	R307535
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		406	mg/L	1	02/17/2022 12:58	R307297
SW-846 9036 (TOTAL)								
Sulfate	NELAP	20		57	mg/L	2	02/22/2022 20:35	R307405
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.33	mg/L	1	02/17/2022 10:03	R307231
SW-846 9251 (TOTAL)								
Chloride	NELAP	4		< 4	mg/L	1	02/23/2022 13:55	R307435
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	02/18/2022 15:56	187816
Barium	NELAP	0.0025		0.0505	mg/L	1	02/18/2022 15:56	187816
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	02/18/2022 15:56	187816
Boron	NELAP	0.0200		< 0.0200	mg/L	1	02/18/2022 15:56	187816
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	02/18/2022 15:56	187816
Calcium	NELAP	0.100		87.2	mg/L	1	02/18/2022 15:56	187816
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	02/18/2022 15:56	187816
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	02/18/2022 15:56	187816
Lead	NELAP	0.0150		< 0.0150	mg/L	1	02/18/2022 15:56	187816
Lithium	NELAP	0.0050		0.0053	mg/L	1	02/18/2022 15:56	187816
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	02/18/2022 15:56	187816
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	03/05/2022 3:42	187816
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	02/25/2022 3:34	187816
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	02/25/2022 3:34	187816
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	02/17/2022 14:29	187817
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	03/03/2022 0:00	R308076
Radium-228	*	0		See attached	pci/L	1	03/03/2022 0:00	R308076



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 22011434-007
 Matrix: GROUNDWATER

Work Order: 22011434
 Report Date: 16-Mar-22

Client Sample ID: AP-6

Collection Date: 02/15/2022 13:46

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		498.20	ft	1	02/15/2022 13:46	R307535
Depth to water	*	-5.00		5.36	ft	1	02/15/2022 13:46	R307535
Depth to water from measuring point	*	0		7.78	ft	1	02/15/2022 13:46	R307535
Elevation of groundwater surface	*	0		530.04	ft	1	02/15/2022 13:46	R307535
Measuring Point Elevation	*	0		537.82	ft	1	02/15/2022 13:46	R307535
Measuring Point Height Above Land Surface	*	0		2.42	ft	1	02/15/2022 13:46	R307535
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		7.8	NTU	1	02/15/2022 13:46	R307535
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		54.3	°F	1	02/15/2022 13:46	R307535
SW-846 9040B								
pH, Field	*	1.00		7.18		1	02/15/2022 13:46	R307535
SW-846 9050A								
Spec. Conductance, Field	*	1.00		992	µmhos/cm @25C	1	02/15/2022 13:46	R307535
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		374	mg/L	1	02/21/2022 14:43	R307467
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		< 10	mg/L	1	02/22/2022 20:38	R307405
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.49	mg/L	1	02/17/2022 10:05	R307231
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		35	mg/L	1	02/22/2022 20:37	R307406
<i>Sample result exceeds 10 times the CCB contamination. Data is reportable per the TNI Standard.</i>								
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	02/18/2022 15:57	187816
Barium	NELAP	0.0025		0.119	mg/L	1	02/18/2022 15:57	187816
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	02/18/2022 15:57	187816
Boron	NELAP	0.0200		0.247	mg/L	1	02/18/2022 15:57	187816
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	02/18/2022 15:57	187816
Calcium	NELAP	0.100		69.2	mg/L	1	02/18/2022 15:57	187816
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	02/18/2022 15:57	187816
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	02/18/2022 15:57	187816
Lead	NELAP	0.0150		< 0.0150	mg/L	1	02/18/2022 15:57	187816
Lithium	NELAP	0.0050		0.0071	mg/L	1	02/18/2022 15:57	187816
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	02/18/2022 15:57	187816
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	03/05/2022 3:49	187816
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	02/25/2022 3:41	187816
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	02/25/2022 3:41	187816
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	02/17/2022 14:31	187817
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	03/03/2022 0:00	R308076
Radium-228	*	0		See attached	pci/L	1	03/03/2022 0:00	R308076



Laboratory Results

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Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 22011434-008
 Matrix: GROUNDWATER

Work Order: 22011434
 Report Date: 16-Mar-22

Client Sample ID: AP-7

Collection Date: 02/15/2022 14:33

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		496.50	ft	1	02/15/2022 14:33	R307535
Depth to water	*	-5.00		8.23	ft	1	02/15/2022 14:33	R307535
Depth to water from measuring point	*	0		10.89	ft	1	02/15/2022 14:33	R307535
Elevation of groundwater surface	*	0		528.13	ft	1	02/15/2022 14:33	R307535
Measuring Point Elevation	*	0		539.02	ft	1	02/15/2022 14:33	R307535
Measuring Point Height Above Land Surface	*	0		2.66	ft	1	02/15/2022 14:33	R307535
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		6.1	NTU	1	02/15/2022 14:33	R307535
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		54.1	°F	1	02/15/2022 14:33	R307535
SW-846 9040B								
pH, Field	*	1.00		7.20		1	02/15/2022 14:33	R307535
SW-846 9050A								
Spec. Conductance, Field	*	1.00		1140	µmhos/cm @25C	1	02/15/2022 14:33	R307535
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		440	mg/L	1	02/21/2022 14:46	R307467
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		< 10	mg/L	1	02/22/2022 20:40	R307405
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.55	mg/L	1	02/17/2022 10:07	R307231
SW-846 9251 (TOTAL)								
Chloride	NELAP	2		64	mg/L	2	02/22/2022 20:45	R307406
<i>Sample result exceeds 10 times the CCB contamination. Data is reportable per the TNI Standard.</i>								
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	02/18/2022 15:59	187816
Barium	NELAP	0.0025		0.125	mg/L	1	02/18/2022 15:59	187816
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	02/18/2022 15:59	187816
Boron	NELAP	0.0200		0.381	mg/L	1	02/18/2022 15:59	187816
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	02/18/2022 15:59	187816
Calcium	NELAP	0.100		62.9	mg/L	1	02/18/2022 15:59	187816
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	02/18/2022 15:59	187816
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	02/18/2022 15:59	187816
Lead	NELAP	0.0150		< 0.0150	mg/L	1	02/18/2022 15:59	187816
Lithium	NELAP	0.0050		0.0090	mg/L	1	02/18/2022 15:59	187816
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	02/18/2022 15:59	187816
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	03/05/2022 3:56	187816
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	02/25/2022 4:34	187816
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	02/25/2022 4:34	187816
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	02/17/2022 14:33	187817
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	03/03/2022 0:00	R308076
Radium-228	*	0		See attached	pci/L	1	03/03/2022 0:00	R308076



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 22011434-009
 Matrix: GROUNDWATER

Work Order: 22011434
 Report Date: 16-Mar-22

Client Sample ID: AP-8

Collection Date: 02/15/2022 13:12

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		497.60	ft	1	02/15/2022 13:12	R307535
Depth to water	*	-5.00		3.51	ft	1	02/15/2022 13:12	R307535
Depth to water from measuring point	*	0		6.41	ft	1	02/15/2022 13:12	R307535
Elevation of groundwater surface	*	0		530.79	ft	1	02/15/2022 13:12	R307535
Measuring Point Elevation	*	0		537.20	ft	1	02/15/2022 13:12	R307535
Measuring Point Height Above Land Surface	*	0		2.90	ft	1	02/15/2022 13:12	R307535
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		8.0	NTU	1	02/15/2022 13:12	R307535
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		56.1	°F	1	02/15/2022 13:12	R307535
SW-846 9040B								
pH, Field	*	1.00		6.91		1	02/15/2022 13:12	R307535
SW-846 9050A								
Spec. Conductance, Field	*	1.00		1320	µmhos/cm @25C	1	02/15/2022 13:12	R307535
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		502	mg/L	1	02/21/2022 14:59	R307467
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		< 10	mg/L	1	02/22/2022 20:48	R307405
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.29	mg/L	1	02/17/2022 10:30	R307231
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		26	mg/L	1	02/22/2022 20:48	R307406
<i>Sample result exceeds 10 times the CCB contamination. Data is reportable per the TNI Standard.</i>								
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		0.0319	mg/L	1	02/18/2022 16:21	187816
Barium	NELAP	0.0025		0.355	mg/L	1	02/18/2022 16:21	187816
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	02/18/2022 16:21	187816
Boron	NELAP	0.0200		0.125	mg/L	1	02/18/2022 16:21	187816
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	02/18/2022 16:21	187816
Calcium	NELAP	0.100	S	100	mg/L	1	02/18/2022 16:21	187816
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	02/18/2022 16:21	187816
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	02/18/2022 16:21	187816
Lead	NELAP	0.0150		< 0.0150	mg/L	1	02/18/2022 16:21	187816
Lithium	NELAP	0.0050		0.0068	mg/L	1	02/18/2022 16:21	187816
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	02/18/2022 16:21	187816
<i>Matrix spike control limits for Ca are not applicable due to high sample/spike ratio.</i>								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	03/05/2022 4:02	187816
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	02/25/2022 4:41	187816
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	02/25/2022 4:41	187816
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	02/17/2022 14:35	187817
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	03/03/2022 0:00	R308076



Laboratory Results

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Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells
Lab ID: 22011434-009
Matrix: GROUNDWATER

Work Order: 22011434
Report Date: 16-Mar-22
Client Sample ID: AP-8
Collection Date: 02/15/2022 13:12

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228	*	0		See attached	pci/L	1	03/03/2022 0:00	R308076



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 22011434-010
 Matrix: GROUNDWATER

Work Order: 22011434
 Report Date: 16-Mar-22

Client Sample ID: AP-9

Collection Date: 02/15/2022 15:01

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		501.80	ft	1	02/15/2022 15:01	R307535
Depth to water	*	-5.00		7.80	ft	1	02/15/2022 15:01	R307535
Depth to water from measuring point	*	0		10.90	ft	1	02/15/2022 15:01	R307535
Elevation of groundwater surface	*	0		529.40	ft	1	02/15/2022 15:01	R307535
Measuring Point Elevation	*	0		540.30	ft	1	02/15/2022 15:01	R307535
Measuring Point Height Above Land Surface	*	0		3.10	ft	1	02/15/2022 15:01	R307535
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		6.7	NTU	1	02/15/2022 15:01	R307535
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		53.2	°F	1	02/15/2022 15:01	R307535
SW-846 9040B								
pH, Field	*	1.00		7.47		1	02/15/2022 15:01	R307535
SW-846 9050A								
Spec. Conductance, Field	*	1.00		590	µmhos/cm @25C	1	02/15/2022 15:01	R307535
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		224	mg/L	1	02/21/2022 15:28	R307467
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		23	mg/L	1	02/22/2022 20:54	R307405
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.25	mg/L	1	02/17/2022 10:32	R307231
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		24	mg/L	1	02/22/2022 20:53	R307406
<i>Sample result exceeds 10 times the CCB contamination. Data is reportable per the TNI Standard.</i>								
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	02/18/2022 16:01	187816
Barium	NELAP	0.0025		0.114	mg/L	1	02/18/2022 16:01	187816
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	02/18/2022 16:01	187816
Boron	NELAP	0.0200		0.0491	mg/L	1	02/18/2022 16:01	187816
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	02/18/2022 16:01	187816
Calcium	NELAP	0.100		46.5	mg/L	1	02/18/2022 16:01	187816
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	02/18/2022 16:01	187816
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	02/18/2022 16:01	187816
Lead	NELAP	0.0150		< 0.0150	mg/L	1	02/18/2022 16:01	187816
Lithium	NELAP	0.0050		< 0.0050	mg/L	1	02/18/2022 16:01	187816
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	02/18/2022 16:01	187816
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		0.0025	mg/L	5	03/05/2022 4:49	187816
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	02/25/2022 5:04	187816
Thallium	NELAP	0.0020		0.0032	mg/L	5	02/25/2022 5:04	187816
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	02/17/2022 14:38	187817
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	03/03/2022 0:00	R308076
Radium-228	*	0		See attached	pci/L	1	03/03/2022 0:00	R308076



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 22011434-012
 Matrix: GROUNDWATER

Work Order: 22011434
 Report Date: 16-Mar-22

Client Sample ID: AP-11

Collection Date: 02/16/2022 12:51

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		515.15	ft	1	02/16/2022 12:51	R307535
Depth to water	*	-5.00		8.41	ft	1	02/16/2022 12:51	R307535
Depth to water from measuring point	*	0		11.21	ft	1	02/16/2022 12:51	R307535
Elevation of groundwater surface	*	0		526.89	ft	1	02/16/2022 12:51	R307535
Measuring Point Elevation	*	0		538.10	ft	1	02/16/2022 12:51	R307535
Measuring Point Height Above Land Surface	*	0		2.80	ft	1	02/16/2022 12:51	R307535
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		9.8	NTU	1	02/16/2022 12:51	R307535
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		54.5	°F	1	02/16/2022 12:51	R307535
SW-846 9040B								
pH, Field	*	1.00		6.57		1	02/16/2022 12:51	R307535
SW-846 9050A								
Spec. Conductance, Field	*	1.00		1660	µmhos/cm @25C	1	02/16/2022 12:51	R307535
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		606	mg/L	1	02/21/2022 15:29	R307467
SW-846 9036 (TOTAL)								
Sulfate	NELAP	50		67	mg/L	5	02/22/2022 21:02	R307405
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.21	mg/L	1	02/17/2022 10:34	R307231
SW-846 9251 (TOTAL)								
Chloride	NELAP	5		83	mg/L	5	02/22/2022 21:01	R307406
<i>Sample result exceeds 10 times the CCB contamination. Data is reportable per the TNI Standard.</i>								
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	02/18/2022 16:02	187816
Barium	NELAP	0.0025		0.108	mg/L	1	02/18/2022 16:02	187816
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	02/18/2022 16:02	187816
Boron	NELAP	0.0200		0.276	mg/L	1	02/18/2022 16:02	187816
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	02/18/2022 16:02	187816
Calcium	NELAP	0.100		127	mg/L	1	02/18/2022 16:02	187816
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	02/18/2022 16:02	187816
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	02/18/2022 16:02	187816
Lead	NELAP	0.0150		< 0.0150	mg/L	1	02/18/2022 16:02	187816
Lithium	NELAP	0.0050		< 0.0050	mg/L	1	02/18/2022 16:02	187816
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	02/18/2022 16:02	187816
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	03/05/2022 4:56	187816
Selenium	NELAP	0.0010		0.0056	mg/L	5	02/25/2022 5:11	187816
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	02/25/2022 5:11	187816
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	02/17/2022 14:40	187817
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	03/03/2022 0:00	R308076
Radium-228	*	0		See attached	pci/L	1	03/03/2022 0:00	R308076



Laboratory Results

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Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 22011434-013
 Matrix: GROUNDWATER

Work Order: 22011434
 Report Date: 16-Mar-22

Client Sample ID: AP-12

Collection Date: 02/16/2022 12:17

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		510.30	ft	1	02/16/2022 12:17	R307535
Depth to water	*	-5.00		11.28	ft	1	02/16/2022 12:17	R307535
Depth to water from measuring point	*	0		14.18	ft	1	02/16/2022 12:17	R307535
Elevation of groundwater surface	*	0		526.52	ft	1	02/16/2022 12:17	R307535
Measuring Point Elevation	*	0		540.70	ft	1	02/16/2022 12:17	R307535
Measuring Point Height Above Land Surface	*	0		2.90	ft	1	02/16/2022 12:17	R307535
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		240	NTU	1	02/16/2022 12:17	R307535
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		57.6	°F	1	02/16/2022 12:17	R307535
SW-846 9040B								
pH, Field	*	1.00		6.53		1	02/16/2022 12:17	R307535
SW-846 9050A								
Spec. Conductance, Field	*	1.00		2260	µmhos/cm @25C	1	02/16/2022 12:17	R307535
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		998	mg/L	1	02/21/2022 15:29	R307467
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		402	mg/L	20	02/23/2022 13:57	R307431
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.17	mg/L	1	02/17/2022 10:35	R307231
SW-846 9251 (TOTAL)								
Chloride	NELAP	5		113	mg/L	5	02/22/2022 21:04	R307406
<i>Sample result exceeds 10 times the CCB contamination. Data is reportable per the TNI Standard.</i>								
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	02/18/2022 16:04	187816
Barium	NELAP	0.0025		0.171	mg/L	1	02/18/2022 16:04	187816
Beryllium	NELAP	0.0005		0.0010	mg/L	1	02/18/2022 16:04	187816
Boron	NELAP	0.0200		0.0244	mg/L	1	02/18/2022 16:04	187816
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	02/18/2022 16:04	187816
Calcium	NELAP	0.100		201	mg/L	1	02/18/2022 16:04	187816
Chromium	NELAP	0.0050		0.0253	mg/L	1	02/18/2022 16:04	187816
Cobalt	NELAP	0.0050		0.0143	mg/L	1	02/18/2022 16:04	187816
Lead	NELAP	0.0150		0.0225	mg/L	1	02/18/2022 16:04	187816
Lithium	NELAP	0.0050		0.0257	mg/L	1	02/18/2022 16:04	187816
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	02/18/2022 16:04	187816
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	03/05/2022 5:02	187816
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	02/25/2022 5:19	187816
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	02/25/2022 5:19	187816
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	02/17/2022 14:42	187817
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	03/03/2022 0:00	R308076
Radium-228	*	0		See attached	pci/L	1	03/03/2022 0:00	R308076



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 22011434-014
 Matrix: GROUNDWATER

Work Order: 22011434
 Report Date: 16-Mar-22

Client Sample ID: AP-13

Collection Date: 02/16/2022 11:34

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		511.00	ft	1	02/16/2022 11:34	R307535
Depth to water	*	-5.00		10.92	ft	1	02/16/2022 11:34	R307535
Depth to water from measuring point	*	0		14.32	ft	1	02/16/2022 11:34	R307535
Elevation of groundwater surface	*	0		527.68	ft	1	02/16/2022 11:34	R307535
Measuring Point Elevation	*	0		542.00	ft	1	02/16/2022 11:34	R307535
Measuring Point Height Above Land Surface	*	0		3.40	ft	1	02/16/2022 11:34	R307535
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		530	NTU	1	02/16/2022 11:34	R307535
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		55.9	°F	1	02/16/2022 11:34	R307535
SW-846 9040B								
pH, Field	*	1.00		6.71		1	02/16/2022 11:34	R307535
SW-846 9050A								
Spec. Conductance, Field	*	1.00		1230	µmhos/cm @25C	1	02/16/2022 11:34	R307535
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		486	mg/L	1	02/21/2022 15:30	R307467
SW-846 9036 (TOTAL)								
Sulfate	NELAP	50		134	mg/L	5	02/22/2022 21:23	R307405
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.23	mg/L	1	02/17/2022 10:37	R307231
SW-846 9251 (TOTAL)								
Chloride	NELAP	5		35	mg/L	5	02/22/2022 21:23	R307406
<i>Sample result exceeds 10 times the CCB contamination. Data is reportable per the TNI Standard.</i>								
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	02/18/2022 16:18	187816
Barium	NELAP	0.0025		0.119	mg/L	1	02/18/2022 16:18	187816
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	02/18/2022 16:18	187816
Boron	NELAP	0.0200		0.0403	mg/L	1	02/18/2022 16:18	187816
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	02/18/2022 16:18	187816
Calcium	NELAP	0.100		106	mg/L	1	02/18/2022 16:18	187816
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	02/18/2022 16:18	187816
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	02/18/2022 16:18	187816
Lead	NELAP	0.0150		< 0.0150	mg/L	1	02/18/2022 16:18	187816
Lithium	NELAP	0.0050		0.0134	mg/L	1	02/18/2022 16:18	187816
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	02/18/2022 16:18	187816
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	03/05/2022 5:09	187816
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	02/25/2022 5:26	187816
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	02/25/2022 5:26	187816
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	02/17/2022 14:44	187817
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	03/04/2022 0:00	R308076
Radium-228	*	0		See attached	pci/L	1	03/04/2022 0:00	R308076



Laboratory Results

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Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 22011434-015
 Matrix: GROUNDWATER

Work Order: 22011434
 Report Date: 16-Mar-22

Client Sample ID: AP-14

Collection Date: 02/16/2022 9:34

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		508.40	ft	1	02/16/2022 9:34	R307535
Depth to water	*	-5.00		-1.37	ft	1	02/16/2022 9:34	R307535
Depth to water from measuring point	*	0		1.43	ft	1	02/16/2022 9:34	R307535
Elevation of groundwater surface	*	0		538.17	ft	1	02/16/2022 9:34	R307535
Measuring Point Elevation	*	0		539.60	ft	1	02/16/2022 9:34	R307535
Measuring Point Height Above Land Surface	*	0		2.80	ft	1	02/16/2022 9:34	R307535
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		25	NTU	1	02/16/2022 9:34	R307535
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		55.2	°F	1	02/16/2022 9:34	R307535
SW-846 9040B								
pH, Field	*	1.00		6.93		1	02/16/2022 9:34	R307535
SW-846 9050A								
Spec. Conductance, Field	*	1.00		2300	µmhos/cm @25C	1	02/16/2022 9:34	R307535
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		1240	mg/L	1	02/21/2022 15:37	R307467
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		670	mg/L	20	02/23/2022 14:03	R307431
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.28	mg/L	1	02/17/2022 10:39	R307231
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		49	mg/L	1	02/22/2022 21:31	R307406
<i>Sample result exceeds 10 times the CCB contamination. Data is reportable per the TNI Standard.</i>								
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	02/18/2022 16:20	187816
Barium	NELAP	0.0025		0.0411	mg/L	1	02/18/2022 16:20	187816
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	02/18/2022 16:20	187816
Boron	NELAP	0.0400		23.1	mg/L	2	02/22/2022 15:40	187816
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	02/18/2022 16:20	187816
Calcium	NELAP	0.100		225	mg/L	1	02/18/2022 16:20	187816
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	02/18/2022 16:20	187816
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	02/18/2022 16:20	187816
Lead	NELAP	0.0150		< 0.0150	mg/L	1	02/18/2022 16:20	187816
Lithium	NELAP	0.0050		0.0074	mg/L	1	02/18/2022 16:20	187816
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	02/18/2022 16:20	187816
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	03/05/2022 5:16	187816
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	02/25/2022 6:04	187816
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	02/25/2022 6:04	187816
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	02/17/2022 14:56	187817
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	03/04/2022 0:00	R308076
Radium-228	*	0		See attached	pci/L	1	03/04/2022 0:00	R308076



Receiving Check List

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

Client: City Water, Light & Power

Work Order: 22011434

Client Project: Ash Pond Monitoring Wells

Report Date: 16-Mar-22

Carrier: Joe Riley

Received By: EAH

Completed by:

Mary E. Kemp

Reviewed by:

Elizabeth A. Hurley

On:

17-Feb-22

Mary E. Kemp

On:

17-Feb-22

Elizabeth A. Hurley

Pages to follow: Chain of custody

Extra pages included

- Shipping container/cooler in good condition? Yes No Not Present Temp °C **2.8**
- 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.

pH strip #78011. - PRY/MKemp - 2/17/2022 8:32:35 AM

Additional nitric acid (80456) was needed for one container each in AP-4, AP-13, and AP-14 upon arrival at the laboratory. - MKemp - 2/17/2022 8:32:57 AM

CHAIN OF CUSTODY

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

Client: <u>City Water, Light & Power</u> Address: <u>3100 Stevenson Drive, 2nd Floor Maintenance Building</u> City/State/Zip: <u>Springfield IL 62712</u> Contact: <u>Eric Staley</u> Phone: <u>(217) 757-8610</u> Email: <u>eric.staley@cwlp.com</u> Fax:	Samples on: <input checked="" type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input type="checkbox"/> NO ICE <u>2.8 °CL TO</u> Preserved in: <input type="checkbox"/> LAB <input checked="" type="checkbox"/> FIELD <u>FOR LAB USE ONLY</u> <u>1</u> LAB NOTES: <u>PHV 7800. PRT 2/17/22</u> <u>Additional HNO3 (80456) to lot 2 AP-4, AP-13, AP-14 MEK 211722</u> Client Comments: <u>AP10-IE stuck near top; Needs to thaw</u>
--	---

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

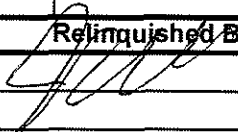
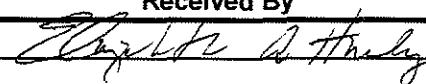
PROJECT NAME/NUMBER <u>Ash Pond Monitoring Wells</u>	SAMPLE COLLECTOR'S NAME <u>J. RILEY A. BRIDGES</u>	# and Type of Containers	INDICATE ANALYSIS REQUESTED
RESULTS REQUESTED <input checked="" type="checkbox"/> Standard <input type="checkbox"/> 1-2 Day (100% Surcharge) <input type="checkbox"/> Other <input type="checkbox"/> 3 Day (50% Surcharge)	BILLING INSTRUCTIONS	UNP HNO3 NaOH H2SO4 HCL MeOH NaHSO4 TSP Other	Field parameters* Cl F SO4 TDS (T) Metals (T)** Radium-226 Radium-228 Field Turbidity

Lab Use Only	Sample ID	Date/Time Sampled	Matrix	UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
<u>32011434</u>	<u>001</u>	<u>RW-3</u>	<u>Groundwater</u>	<u>1</u>	<u>3</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>002</u>	<u>AP-1-</u>	<u>Groundwater</u>	<u>1</u>	<u>3</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>003</u>	<u>AP-2 -</u>	<u>Groundwater</u>	<u>1</u>	<u>3</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>004</u>	<u>AP-3-</u>	<u>Groundwater</u>	<u>1</u>	<u>3</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>005</u>	<u>AP-4</u>	<u>Groundwater</u>	<u>1</u>	<u>3</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>006</u>	<u>AP-5</u>	<u>Groundwater</u>	<u>1</u>	<u>3</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>007</u>	<u>AP-6</u>	<u>Groundwater</u>	<u>1</u>	<u>3</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>008</u>	<u>AP-7</u>	<u>Groundwater</u>	<u>1</u>	<u>3</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>009</u>	<u>AP-8-</u>	<u>Groundwater</u>	<u>1</u>	<u>3</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>010</u>	<u>AP-9</u>	<u>Groundwater</u>	<u>1</u>	<u>3</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<u>011</u>	<u>AP-10</u>	<u>Groundwater</u>	<u>1</u>	<u>3</u>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Relinquished By 	Date/Time <u>02/17/22 0623</u>	Received By 	Date/Time <u>2/17/22 0623</u>
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CHAIN OF CUSTODY

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

Client: <u>City Water, Light & Power</u> Address: <u>3100 Stevenson Drive, 2nd Floor Maintenance Building</u> City/State/Zip: <u>Springfield IL 62712</u> Contact: <u>Eric Staley</u> Phone: <u>(217) 757-8610</u> Email: <u>eric.staley@cwlp.com</u> Fax: _____				Samples on: <input type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input type="checkbox"/> NO ICE _____ °C Preserved in: <input type="checkbox"/> LAB <input type="checkbox"/> FIELD <u>FOR LAB USE ONLY</u> LAB NOTES: _____															
Are these samples known to be involved in litigation? If yes, a surcharge will apply: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are these samples known to be hazardous? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Permit on file				Client Comments: *elevations, pH, conductivity, temperature **Sb Se TI (ICPMS) As Ba Be B Cd Ca Cr Co Pb Li Hg Mo Quarterly monitoring															
PROJECT NAME/NUMBER <u>Ash Pond Monitoring Wells</u>		SAMPLE COLLECTOR'S NAME _____		# and Type of Containers UNP HNO3 NaOH H2SO4 HCL MeOH NaHSO4 TSP Other		INDICATE ANALYSIS REQUESTED Field parameters* Cl F SO4 TDS (T) Metals (T)** Radium-226 Radium-228 Field Turbidity													
RESULTS REQUESTED <input checked="" type="checkbox"/> Standard <input type="checkbox"/> 1-2 Day (100% Surcharge) <input type="checkbox"/> Other _____ <input type="checkbox"/> 3 Day (50% Surcharge)		BILLING INSTRUCTIONS _____																	
Lab Use Only <u>22011434-012</u>	Sample ID <u>AP-11</u>	Date/Time Sampled <u>02/16/22 1251</u>	Matrix <u>Groundwater</u>	UNP 1	HNO3 3	NaOH <input type="checkbox"/>	H2SO4 <input type="checkbox"/>	HCL <input type="checkbox"/>	MeOH <input type="checkbox"/>	NaHSO4 <input type="checkbox"/>	TSP <input type="checkbox"/>	Other <input type="checkbox"/>	Field parameters* <input checked="" type="checkbox"/>	Cl F SO4 TDS (T) <input checked="" type="checkbox"/>	Metals (T)** <input checked="" type="checkbox"/>	Radium-226 <input checked="" type="checkbox"/>	Radium-228 <input checked="" type="checkbox"/>	Field Turbidity <input checked="" type="checkbox"/>	
<u>013</u>	<u>AP-12</u>	<u>02/16/22 1207</u>	<u>Groundwater</u>	1	3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<u>014</u>	<u>AP-13</u>	<u>02/16/22 1134</u>	<u>Groundwater</u>	1	3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<u>015</u>	<u>AP-14</u>	<u>02/16/22 0934</u>	<u>Groundwater</u>	1	3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Relinquished By 		Date/Time <u>02/17/22 0623</u>		Received By 				Date/Time <u>2/17/22 0623</u>											

*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

Well ID						Final	Units
RW3	DTW	9.86	14.98	16.05	17.05	9.86	ft
	DTB						ft
	MP Elev						ft
	Time	1313	1328	1331	1334	1334	
	Temp		13.1	13	13	13	C
	D.O.		0.49	0.74	0.72	0.72	Mg/l
	Cond		1087	1090	1094	1094	uS/cm
	pH		7.28	7.28	7.27	7.27	
	Orp		-136.2	-138	-140.2	-140.2	mV
	Turbidity		9.99	6.96	5.63	5.63	NTU
	Drawdn		5.12	1.07	1	1	ft
	Volume		0.65	0.78	0.91	0.91	Gallon

CLEAR Field Filtered
NO COLOR
NO ODOR

Bladder Pump

Well ID						Final	Units
AP1	DTW	9.32	9.32	9.32	9.32	9.32	ft
	DTB						ft
	MP Elev						ft
	Time	1140	1149	1152	1155	1155	
	Temp		14	14	14	14	C
	D.O.		0.33	0.26	0.22	0.22	Mg/l
	Cond		2578	2581	2583	2583	uS/cm
	pH		6.6	6.58	6.57	6.57	
	Orp		-76	-87.9	-94.2	-94.2	mV
	Turbidity		13.74	5.92	3.43	3.43	NTU
	Drawdn		0	0	0	0	ft
	Volume		0.39	0.52	0.65	0.65	Gallon

CLEAR
NO COLOR
NO ODOR

Bladder Pump

Well ID						Final	Units
AP2	DTW	6.21	6.85	6.85	6.85	6.85	ft
	DTB						ft
	MP Elev						ft
	Time	1116	1125	1128	1131	1131	
	Temp		12.8	12.9	12.9	12.9	C
	D.O.		0.26	0.21	0.18	0.18	Mg/l
	Cond		2241	2281	2319	2319	uS/cm
	pH		6.45	6.45	6.43	6.43	
	Orp		-5.6	-11.1	-13.5	-13.5	mV
	Turbidity		6.78	3.55	5.92	5.92	NTU
	Drawdn		0.64	0	0	0	ft
	Volume		0.39	0.52	0.65	0.65	Gallon

CLEAR
NO COLOR
NO ODOR

Bladder Pump

Well ID						Final	Units
AP3	DTW	8.42	8.42	8.42	8.42	8.42	ft
	DTB						ft
	MP Elev						ft
	Time	1044	1102	1105	1108	1108	
	Temp		12.8	12.4	12.9	12.9	C
	D.O.		0.43	0.46	0.41	0.41	Mg/l
	Cond		1595	1597	1594	1594	uS/cm
	pH		6.62	6.62	6.6	6.6	
	Orp		-53.9	-58.4	-61.5	-61.5	mV
	Turbidity		13.76	13.98	8.29	8.29	NTU
	Drawdn		0	0	0	0	ft
	Volume		0.78	0.91	1.04	1.04	Gallon

CLEAR
NO COLOR
NO ODOR

Bladder Pump

Well ID							Final	Units
AP4	DTW	8.42	8.42	8.42	8.42	8.42	8.42	ft
	DTB							ft
	MP Elev							ft
	Time	941	956	959	1002	1005	1005	
	Temp		13.8	13.8	13.9	13.9	13.9	C
	D.O.		0.44	0.38	0.32	0.29	0.29	Mg/l
	Cond		1348	1349	1348	1348	1348	uS/cm
	pH		6.9	6.91	6.91	6.92	6.92	
	Orp		-111.2	-117.8	-123.8	-127.5	-127.5	mV
	Turbidity		40.18	44.94	42.38	49.06	49.06	NTU
	Drawdn		0	0	0	0	0	ft
	Volume		0.65	0.78	0.91	1.04	1.04	Gallon

SLIGHT CLOUDY
NO COLOR
NO ODOR

Bladder Pump

Well ID						Final	Units
AP5	DTW	12.41	14.51	14.51	14.51	12.41	ft
	DTB						ft
	MP Elev						ft
	Time	1025	1031	1034	1037	1037	
	Temp		12.5	12.7	12.6	12.6	C
	D.O.		3.81	3.26	3.15	3.15	Mg/l
	Cond		999	1009	1010	1010	uS/cm
	pH		7.08	7.02	7.01	7.01	
	Orp		-20.4	-13	-5.9	-5.9	mV
	Turbidity		0.92	1.61	3.39	3.39	NTU
	Drawdn		2.1	0	0	0	ft
	Volume		0.26	0.39	0.52	0.52	Gallon

CLEAR
NO COLOR
NO ODOR

Well ID								Final	Units
AP6	DTW	7.78	13.09	13.35	13.74	14.35	14.35	14.35	ft
	DTB								ft
	MP Elev								ft
	Time	1328	1334	1337	1340	1343	1346	1346	
	Temp		12.3	12.3	12	12.1	12.4	12.4	C
	D.O.		5.84	5.71	5.45	4.65	4.77	4.77	Mg/l
	Cond		990	992	990	994	992	992	uS/cm
	pH		7.32	7.27	7.23	7.17	7.18	7.18	
	Orp		-57	-44.9	-37.6	-31.6	-27.9	-27.9	mV
	Turbidity		4.12	4.14	5.81	14.68	7.8	7.8	NTU
	Drawdn		5.31	0.26	0.39	0.61	0	0	ft
	Volume		0.26	0.39	0.52	0.65	0.78	0.78	Gallon

CLEAR
NO COLOR
NO ODOR

Bladder Pump

Well ID						Final	Units
AP7	DTW	10.89	14.32	15.35	16.2	16.2	ft
	DTB						ft
	MP Elev						ft
	Time	1421	1427	1430	1433	1433	
	Temp		12.1	12.2	12.3	12.3	C
	D.O.		0.5	0.38	0.31	0.31	Mg/l
	Cond		1131	1134	1136	1136	uS/cm
	pH		7.23	7.21	7.2	7.2	
	Orp		-53.8	-72.1	-84	-84	mV
	Turbidity		8.11	7.23	6.13	6.13	NTU
	Drawdn		3.43	1.03	0.85	0.85	ft
	Volume		0.26	0.39	0.52	0.52	Gallon

CLEAR
NO COLOR
NO ODOR

Sub Pump

Well ID						Final	Units
AP8	DTW	6.41	9.89	9.89	9.89	9.89	ft
	DTB						ft
	MP Elev						ft
	Time	1254	1306	1309	1312	1312	
	Temp		13.4	13.4	13.4	13.4	C
	D.O.		0.19	0.16	0.14	0.14	Mg/l
	Cond		1321	1321	1322	1322	uS/cm
	pH		6.92	6.91	6.91	6.91	
	Orp		-108.2	-115.4	-119.9	-119.9	mV
	Turbidity		10.87	12.9	8.01	8.01	NTU
	Drawdn		3.48	0	0	0	ft
	Volume		0.52	0.65	0.78	0.78	Gallon

CLEAR
NO COLOR
NO ODOR
Bladder Pump

Well ID					Final	Units
AP9	DTW	10.9			10.9	ft
	DTB					ft
	MP Elev					ft
	Time	1452	1455	1458	1501	1501
	Temp		11.8	11.9	11.8	11.8 C
	D.O.		8.25	8.23	8.39	8.39 Mg/l
	Cond		598	590	590	590 uS/cm
	pH		7.56	7.49	7.47	7.47
	Orp		-16.6	-13	-9.4	-9.4 mV
	Turbidity		4.04	1.77	6.69	6.69 NTU
	Drawdn					ft
	Volume		0.13	0.26	0.39	0.39 Gallon

BAILER

CLEAR
NO COLOR
NO ODOR

Well ID								Final	Units
AP11	DTW	11.21							ft
	DTB								ft
	MP Elev								ft
	Time	1224	1236	1239	1242	1245	1248	1251	
	Temp		12.7	12.9	12.7	12.6	12.6	12.5	C
	D.O.		3.44	3.07	3.56	4.16	4.32	4.65	Mg/l
	Cond		1776	1772	1741	1694	1676	1658	uS/cm
	pH		6.55	6.54	6.56	6.57	6.57	6.57	
	Orp		45	47	49.5	55.4	60.1	64.4	mV
	Turbidity		185.78	111.09	60.52	20.76	19.32	9.78	NTU
	Drawdn								ft
	Volume		0.52	0.65	0.78	0.91	1.04	1.17	Gallon

WELL GOING DRY

CLEAR
NO COLOR
NO ODOR
SUB

Well ID										Final	Units
AP12	DTW	14.18								14.18	ft
	DTB										ft
	MP Elev										ft
	Time	1144	1156	1159	1202	1205	1208	1211	1214	1217	
	Temp		13.8	13.6	13.7	14	14.1	14.1	14.1	14.2	C
	D.O.		1.88	1.3	0.71	0.5	0.37	0.28	0.25	0.24	Mg/l
	Cond		2311	2318	2294	2275	2264	2262	2259	2255	uS/cm
	pH		6.56	6.55	6.52	6.53	6.53	6.53	6.53	6.53	
	Orp		21	2	-5	-13.8	-20.5	-25.7	-28.9	-31.6	mV
	Turbidity		3237	3063	980	558	331.68	214.5	157.44	236.32	NTU
	Drawdn										ft
	Volume		0.52	0.65	0.78	0.91	1.04	1.17	1.3	1.43	Gallon

WELL GOES DRY FAST

CLOUDY
SLIGHT ODOR
LIGHT BROWN

SUB PUMP

Well ID						Final	Units
AP13	DTW	14.32				14.32	ft
	DTB						ft
	MP Elev						ft
	Time	1104	1125	1128	1131	1134	1134
	Temp		13.3	13.5	13.4	13.3	13.3 C
	D.O.		3.78	4.02	4.32	4.28	4.28 Mg/l
	Cond		1223	1223	1222	1226	1226 uS/cm
	pH		6.71	6.71	6.7	6.71	6.71
	Orp		24.3	25	26	26.7	26.7 mV
	Turbidity		558.92	393.6	445.78	532.98	532.98 NTU
	Drawdn						ft
	Volume		0.91	1.04	1.17	1.3	1.3 Gallon

WELL GOING DRY/ RECHARGING
CLOUDY
BROWNISH
NO ODOR

SUB PUMP

Well ID						Final	Units
AP14	DTW	1.43				1.43	ft
	DTB						ft
	MP Elev						ft
	Time	901	925	928	931	934	934
	Temp		12.9	12.9	12.9	12.9	12.9 C
	D.O.		4.53	3.29	4.79	3.66	3.66 Mg/l
	Cond		2321	2315	2317	2304	2304 uS/cm
	pH		6.92	6.92	6.93	6.93	6.93
	Orp		52.1	38.8	41	29.4	29.4 mV
	Turbidity		31.53	24.91	30.05	24.67	24.67 NTU
	Drawdn						ft
	Volume		1.04	1.17	1.3	1.43	1.43 Gallon

WELL GOES DRY
SUB PUMP
SLIGHT CLOUDY
NO COLOR
NO ODOR



Summit Environmental Technologies, Inc.
3310 Win St.
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Website: <http://www.settek.com>

March 09, 2022

Shelly Hennessy
TEKLAB Inc,
5445 Horseshoe lake Road
Collinsville, IL 62234
TEL:
FAX:
RE: 22011434

Order No.: 22021386

Dear Shelly Hennessy:

Summit Environmental Technologies, Inc. received 14 sample(s) on 2/21/2022 for the analyses presented in the following report.

Jennifer Woolf
Project Manager
3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 011, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C



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Case Narrative

WO#: 22021386
Date: 3/9/2022

CLIENT: TEKLAB Inc,
Project: 22011434

WorkOrder Narrative:

22021386: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

Sample Notes:

22011434-014: One sample matrix is clear, the other sample has a "dirty" appearance through the bottle . The ID numbers on the the bottles both indicate 22011434-014B and both lids indicate "AP-13". Composite both bottles per client.

Original

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	RL	Reporting Limit
QC	Quality Control	MDL	Method Detection Limit
MB	Method Blank	LOD	Level of Detection
LCS	Laboratory Control Sample	LOQ	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	PQL	Practical Quantitation Limit
QCS	Quality Control Sample	CRQL	Contract Required Quantitation Limit
DUP	Duplicate	PL	Permit Limit
MS	Matrix Spike	RegLvl	Regulatory Limit
MSD	Matrix Spike Duplicate	MCL	Maximum Contamination Limit
RPD	Relative Percent Different	MinCL	Minimum Compound Limit
ICV	Initial Calibration Verification	RA	Reanalysis
ICB	Initial Calibration Blank	RE	Reextraction
CCV	Continuing Calibration Verification	TIC	Tentatively Identified Compound
CCB	Continuing Calibration Blank	RT	Retention Time
RLC	Reporting Limit Check	CF	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.



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Workorder Sample Summary

WO#: 22021386

09-Mar-22

CLIENT: TEKLAB Inc,
Project: 22011434

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
22021386-001	22011434-001		2/16/2022 1:34:00 PM	2/21/2022 1:15:00 PM	Non-Potable Water
22021386-002	22011434-002		2/15/2022 11:55:00 AM	2/21/2022 1:15:00 PM	Non-Potable Water
22021386-003	22011434-003		2/15/2022 11:31:00 AM	2/21/2022 1:15:00 PM	Non-Potable Water
22021386-004	22011434-004		2/15/2022 11:08:00 AM	2/21/2022 1:15:00 PM	Non-Potable Water
22021386-005	22011434-005		2/16/2022 10:05:00 AM	2/21/2022 1:15:00 PM	Non-Potable Water
22021386-006	22011434-006		2/16/2022 10:37:00 AM	2/21/2022 1:15:00 PM	Non-Potable Water
22021386-007	22011434-007		2/15/2022 1:46:00 PM	2/21/2022 1:15:00 PM	Non-Potable Water
22021386-008	22011434-008		2/15/2022 2:33:00 PM	2/21/2022 1:15:00 PM	Non-Potable Water
22021386-009	22011434-009		2/15/2022 1:12:00 PM	2/21/2022 1:15:00 PM	Non-Potable Water
22021386-010	22011434-010		2/15/2022 3:01:00 PM	2/21/2022 1:15:00 PM	Non-Potable Water
22021386-011	22011434-012		2/16/2022 12:51:00 PM	2/21/2022 1:15:00 PM	Non-Potable Water
22021386-012	22011434-013		2/16/2022 12:17:00 PM	2/21/2022 1:15:00 PM	Non-Potable Water
22021386-013	22011434-014		2/16/2022 11:34:00 AM	2/21/2022 1:15:00 PM	Non-Potable Water
22021386-014	22011434-015		2/16/2022 9:34:00 AM	2/21/2022 1:15:00 PM	Non-Potable Water



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DATES REPORT

WO#: **22021386**
09-Mar-22

Client: TEKLAB Inc,
Project: 22011434

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
22021386-001A	22011434-001	2/16/2022 1:34:00 PM	Non-Potable Water	Radium-226 (EPA 903.0)		2/24/2022 12:36:54 PM	3/3/2022 1:27:09 PM
				Radium-228 (EPA 904.0)		2/24/2022 12:36:54 PM	3/3/2022 1:07:31 PM
22021386-002A	22011434-002	2/15/2022 11:55:00 AM		Radium-226 (EPA 903.0)		2/24/2022 12:36:54 PM	3/3/2022 1:27:09 PM
				Radium-228 (EPA 904.0)		2/24/2022 12:36:54 PM	3/3/2022 1:07:31 PM
22021386-003A	22011434-003	2/15/2022 11:31:00 AM		Radium-226 (EPA 903.0)		2/24/2022 12:36:54 PM	3/3/2022 1:27:09 PM
				Radium-228 (EPA 904.0)		2/24/2022 12:36:54 PM	3/3/2022 1:07:31 PM
22021386-004A	22011434-004	2/15/2022 11:08:00 AM		Radium-226 (EPA 903.0)		2/24/2022 12:36:54 PM	3/3/2022 1:27:09 PM
				Radium-228 (EPA 904.0)		2/24/2022 12:36:54 PM	3/3/2022 1:07:31 PM
22021386-005A	22011434-005	2/16/2022 10:05:00 AM		Radium-226 (EPA 903.0)		2/24/2022 12:36:54 PM	3/3/2022 1:27:09 PM
				Radium-228 (EPA 904.0)		2/24/2022 12:36:54 PM	3/3/2022 1:07:31 PM
22021386-006A	22011434-006	2/16/2022 10:37:00 AM		Radium-226 (EPA 903.0)		2/24/2022 12:36:54 PM	3/3/2022 1:27:09 PM
				Radium-228 (EPA 904.0)		2/24/2022 12:36:54 PM	3/3/2022 1:07:31 PM
				Radium-228 (EPA 904.0)		3/7/2022 1:09:18 PM	3/8/2022 4:26:09 PM
22021386-007A	22011434-007	2/15/2022 1:46:00 PM		Radium-226 (EPA 903.0)		2/24/2022 12:36:54 PM	3/3/2022 1:27:09 PM
				Radium-228 (EPA 904.0)		2/24/2022 12:36:54 PM	3/3/2022 1:07:31 PM
22021386-008A	22011434-008	2/15/2022 2:33:00 PM		Radium-226 (EPA 903.0)		2/24/2022 12:36:54 PM	3/3/2022 1:27:09 PM
				Radium-228 (EPA 904.0)		2/24/2022 12:36:54 PM	3/3/2022 1:07:31 PM
22021386-009A	22011434-009	2/15/2022 1:12:00 PM		Radium-226 (EPA 903.0)		2/24/2022 12:36:54 PM	3/3/2022 1:27:09 PM
				Radium-228 (EPA 904.0)		2/24/2022 12:36:54 PM	3/3/2022 1:07:31 PM
22021386-010A	22011434-010	2/15/2022 3:01:00 PM		Radium-226 (EPA 903.0)		2/24/2022 12:36:54 PM	3/3/2022 1:27:09 PM
				Radium-228 (EPA 904.0)		2/24/2022 12:36:54 PM	3/3/2022 1:07:31 PM
22021386-011A	22011434-012	2/16/2022 12:51:00 PM		Radium-226 (EPA 903.0)		2/24/2022 12:36:54 PM	3/3/2022 1:27:09 PM
				Radium-228 (EPA 904.0)		2/24/2022 12:36:54 PM	3/3/2022 1:07:31 PM

Original



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 Website: <http://www.settek.com>

DATES REPORT

WO#: 22021386
 09-Mar-22

Client: TEKLAB Inc,
Project: 22011434

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
22021386-012A	22011434-013	2/16/2022 12:17:00 PM	Non-Potable Water	Radium-226 (EPA 903.0)		2/24/2022 12:36:54 PM	3/3/2022 1:27:09 PM
				Radium-228 (EPA 904.0)		2/24/2022 12:36:54 PM	3/3/2022 1:07:31 PM
22021386-013A	22011434-014	2/16/2022 11:34:00 AM		Radium-226 (EPA 903.0)		2/25/2022 12:41:09 PM	3/4/2022 3:02:37 PM
				Radium-228 (EPA 904.0)		2/25/2022 12:41:09 PM	3/4/2022 2:38:33 PM
22021386-014A	22011434-015	2/16/2022 9:34:00 AM		Radium-226 (EPA 903.0)		2/25/2022 12:41:09 PM	3/4/2022 3:02:37 PM
				Radium-228 (EPA 904.0)		2/25/2022 12:41:09 PM	3/4/2022 2:38:33 PM

Original



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Analytical Report

(consolidated)

WO#: 22021386

Date Reported: 3/9/2022

CLIENT: TEKLAB Inc,
Project: 22011434
Lab ID: 22021386-001
Client Sample ID: 22011434-001

Collection Date: 2/16/2022 1:34:00 PM

Matrix: NON-POTABLE WATER

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					E903.0	E903-904	Analyst: JEB
Radium-226	ND	1.00		pCi/L	± 0.13	1	3/3/2022 1:27:09 PM
Yield	0.880					1	3/3/2022 1:27:09 PM
RADIUM-228 (EPA 904.0)					E904.0	E903-904	Analyst: JEB
Radium-228	ND	1.00		pCi/L	± 0.84	1	3/3/2022 1:07:31 PM
Yield	0.990					1	3/3/2022 1:07:31 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
	ND	Not Detected	OG1	
	P	Second column confirmation exceeds	PL	Permit Limit



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Analytical Report

(consolidated)

WO#: 22021386

Date Reported: 3/9/2022

CLIENT: TEKLAB Inc, **Collection Date:** 2/15/2022 11:55:00 AM
Project: 22011434
Lab ID: 22021386-002 **Matrix:** NON-POTABLE WATER
Client Sample ID: 22011434-002

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					E903.0	E903-904	Analyst: JEB
Radium-226	ND	1.00		pCi/L	± 0.18	1	3/3/2022 1:27:09 PM
Yield	0.860					1	3/3/2022 1:27:09 PM
RADIUM-228 (EPA 904.0)					E904.0	E903-904	Analyst: JEB
Radium-228	1.36	1.00		pCi/L	± 1.07	1	3/3/2022 1:07:31 PM
Yield	0.850					1	3/3/2022 1:07:31 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected	OG1	
P	Second column confirmation exceeds	PL	Permit Limit



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Analytical Report

(consolidated)

WO#: 22021386

Date Reported: 3/9/2022

CLIENT: TEKLAB Inc,
Project: 22011434
Lab ID: 22021386-003
Client Sample ID: 22011434-003

Collection Date: 2/15/2022 11:31:00 AM

Matrix: NON-POTABLE WATER

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					E903.0	E903-904	Analyst: JEB
Radium-226	ND	1.00		pCi/L	± 0.14	1	3/3/2022 1:27:09 PM
Yield	0.970					1	3/3/2022 1:27:09 PM
RADIUM-228 (EPA 904.0)					E904.0	E903-904	Analyst: JEB
Radium-228	ND	1.00		pCi/L	± 0.8	1	3/3/2022 1:07:31 PM
Yield	0.990					1	3/3/2022 1:07:31 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
	ND	Not Detected	OG1	
	P	Second column confirmation exceeds	PL	Permit Limit



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Analytical Report

(consolidated)

WO#: 22021386

Date Reported: 3/9/2022

CLIENT: TEKLAB Inc,
Project: 22011434
Lab ID: 22021386-004
Client Sample ID: 22011434-004

Collection Date: 2/15/2022 11:08:00 AM

Matrix: NON-POTABLE WATER

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)				E903.0	E903-904	Analyst: JEB	
Radium-226	ND	1.00		pCi/L	± 0.08	1	3/3/2022 1:27:09 PM
Yield	0.910					1	3/3/2022 1:27:09 PM
RADIUM-228 (EPA 904.0)				E904.0	E903-904	Analyst: JEB	
Radium-228	ND	1.00		pCi/L	± 0.83	1	3/3/2022 1:07:31 PM
Yield	0.880					1	3/3/2022 1:07:31 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
	ND	Not Detected	OG1	
	P	Second column confirmation exceeds	PL	Permit Limit



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Analytical Report

(consolidated)

WO#: 22021386

Date Reported: 3/9/2022

CLIENT: TEKLAB Inc,
Project: 22011434
Lab ID: 22021386-005
Client Sample ID: 22011434-005

Collection Date: 2/16/2022 10:05:00 AM

Matrix: NON-POTABLE WATER

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					E903.0	E903-904	Analyst: JEB
Radium-226	ND	1.00		pCi/L	± 0.14	1	3/3/2022 1:27:09 PM
Yield	0.960					1	3/3/2022 1:27:09 PM
RADIUM-228 (EPA 904.0)					E904.0	E903-904	Analyst: JEB
Radium-228	1.93	1.00		pCi/L	± 1.02	1	3/3/2022 1:07:31 PM
Yield	1.00					1	3/3/2022 1:07:31 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
	ND	Not Detected	OG1	
	P	Second column confirmation exceeds	PL	Permit Limit



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Analytical Report

(consolidated)

WO#: 22021386

Date Reported: 3/9/2022

CLIENT: TEKLAB Inc,
Project: 22011434
Lab ID: 22021386-006
Client Sample ID: 22011434-006

Collection Date: 2/16/2022 10:37:00 AM

Matrix: NON-POTABLE WATER

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					E903.0	E903-904	Analyst: JEB
Radium-226	ND	1.00		pCi/L	± 0.15	1	3/3/2022 1:27:09 PM
Yield	0.890					1	3/3/2022 1:27:09 PM
RADIUM-228 (EPA 904.0)					E904.0	E903-904	Analyst: JEB
Radium-228	ND	1.00		pCi/L	± 0.57	1	3/8/2022 4:26:09 PM
Yield	1.00					1	3/8/2022 4:26:09 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
	ND	Not Detected	OG1	
	P	Second column confirmation exceeds	PL	Permit Limit



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Analytical Report

(consolidated)

WO#: 22021386

Date Reported: 3/9/2022

CLIENT: TEKLAB Inc,
Project: 22011434
Lab ID: 22021386-007
Client Sample ID: 22011434-007

Collection Date: 2/15/2022 1:46:00 PM

Matrix: NON-POTABLE WATER

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					E903.0	E903-904	Analyst: JEB
Radium-226	ND	1.00		pCi/L	± 0.1	1	3/3/2022 1:27:09 PM
Yield	1.00					1	3/3/2022 1:27:09 PM
RADIUM-228 (EPA 904.0)					E904.0	E903-904	Analyst: JEB
Radium-228	ND	1.00		pCi/L	± 0.84	1	3/3/2022 1:07:31 PM
Yield	1.00					1	3/3/2022 1:07:31 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
	ND	Not Detected	OG1	
	P	Second column confirmation exceeds	PL	Permit Limit



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Analytical Report

(consolidated)

WO#: 22021386

Date Reported: 3/9/2022

CLIENT: TEKLAB Inc,
Project: 22011434
Lab ID: 22021386-008
Client Sample ID: 22011434-008

Collection Date: 2/15/2022 2:33:00 PM

Matrix: NON-POTABLE WATER

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					E903.0	E903-904	Analyst: JEB
Radium-226	ND	1.00		pCi/L	± 0.19	1	3/3/2022 1:27:09 PM
Yield	0.650					1	3/3/2022 1:27:09 PM
RADIUM-228 (EPA 904.0)					E904.0	E903-904	Analyst: JEB
Radium-228	ND	1.00		pCi/L	± 1.16	1	3/3/2022 1:07:31 PM
Yield	0.640					1	3/3/2022 1:07:31 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected	OG1	
P	Second column confirmation exceeds	PL	Permit Limit



Summit Environmental Technologies, Inc.
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 Website: <http://www.settek.com>

Analytical Report

(consolidated)

WO#: 22021386

Date Reported: 3/9/2022

CLIENT: TEKLAB Inc,
Project: 22011434
Lab ID: 22021386-009
Client Sample ID: 22011434-009

Collection Date: 2/15/2022 1:12:00 PM

Matrix: NON-POTABLE WATER

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					E903.0	E903-904	Analyst: JEB
Radium-226	ND	1.00		pCi/L	± 0.19	1	3/3/2022 1:27:09 PM
Yield	0.640					1	3/3/2022 1:27:09 PM
RADIUM-228 (EPA 904.0)					E904.0	E903-904	Analyst: JEB
Radium-228	ND	1.00		pCi/L	± 1	1	3/3/2022 1:07:31 PM
Yield	0.720					1	3/3/2022 1:07:31 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
	ND	Not Detected	OG1	
	P	Second column confirmation exceeds	PL	Permit Limit



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Analytical Report

(consolidated)

WO#: 22021386

Date Reported: 3/9/2022

CLIENT: TEKLAB Inc,
Project: 22011434
Lab ID: 22021386-010
Client Sample ID: 22011434-010

Collection Date: 2/15/2022 3:01:00 PM

Matrix: NON-POTABLE WATER

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					E903.0	E903-904	Analyst: JEB
Radium-226	ND	1.00		pCi/L	± 0.11	1	3/3/2022 1:27:09 PM
Yield	0.920					1	3/3/2022 1:27:09 PM
RADIUM-228 (EPA 904.0)					E904.0	E903-904	Analyst: JEB
Radium-228	ND	1.00		pCi/L	± 0.76	1	3/3/2022 1:07:31 PM
Yield	0.890					1	3/3/2022 1:07:31 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected	OG1	
P	Second column confirmation exceeds	PL	Permit Limit



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Analytical Report

(consolidated)

WO#: 22021386

Date Reported: 3/9/2022

CLIENT: TEKLAB Inc,
Project: 22011434
Lab ID: 22021386-011
Client Sample ID: 22011434-012

Collection Date: 2/16/2022 12:51:00 PM

Matrix: NON-POTABLE WATER

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)				E903.0	E903-904	Analyst: JEB	
Radium-226	ND	1.00		pCi/L	± 0.24	1	3/3/2022 1:27:09 PM
Yield	0.650					1	3/3/2022 1:27:09 PM
RADIUM-228 (EPA 904.0)				E904.0	E903-904	Analyst: JEB	
Radium-228	ND	1.00		pCi/L	± 1.3	1	3/3/2022 1:07:31 PM
Yield	0.650					1	3/3/2022 1:07:31 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
	ND	Not Detected	OG1	
	P	Second column confirmation exceeds	PL	Permit Limit



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Analytical Report

(consolidated)

WO#: 22021386

Date Reported: 3/9/2022

CLIENT: TEKLAB Inc,
Project: 22011434
Lab ID: 22021386-012
Client Sample ID: 22011434-013

Collection Date: 2/16/2022 12:17:00 PM

Matrix: NON-POTABLE WATER

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					E903.0	E903-904	Analyst: JEB
Radium-226	ND	1.00		pCi/L	± 0.16	1	3/3/2022 1:27:09 PM
Yield	0.940					1	3/3/2022 1:27:09 PM
RADIUM-228 (EPA 904.0)					E904.0	E903-904	Analyst: JEB
Radium-228	ND	1.00		pCi/L	± 0.71	1	3/3/2022 1:07:31 PM
Yield	1.00					1	3/3/2022 1:07:31 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected	OG1	
P	Second column confirmation exceeds	PL	Permit Limit



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Analytical Report

(consolidated)

WO#: 22021386

Date Reported: 3/9/2022

CLIENT: TEKLAB Inc,
Project: 22011434
Lab ID: 22021386-013
Client Sample ID: 22011434-014

Collection Date: 2/16/2022 11:34:00 AM

Matrix: NON-POTABLE WATER

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					E903.0	E903-904	Analyst: JEB
Radium-226	ND	1.00		pCi/L	± 0.09	1	3/4/2022 3:02:37 PM
Yield	0.950					1	3/4/2022 3:02:37 PM
RADIUM-228 (EPA 904.0)					E904.0	E903-904	Analyst: JEB
Radium-228	ND	1.00		pCi/L	± 0.47	1	3/4/2022 2:38:33 PM
Yield	1.00					1	3/4/2022 2:38:33 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected	OG1	
P	Second column confirmation exceeds	PL	Permit Limit



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Analytical Report

(consolidated)

WO#: 22021386

Date Reported: 3/9/2022

CLIENT: TEKLAB Inc,
Project: 22011434
Lab ID: 22021386-014
Client Sample ID: 22011434-015

Collection Date: 2/16/2022 9:34:00 AM

Matrix: NON-POTABLE WATER

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					E903.0	E903-904	Analyst: JEB
Radium-226	ND	1.00		pCi/L	± 0.13	1	3/4/2022 3:02:37 PM
Yield	0.900					1	3/4/2022 3:02:37 PM
RADIUM-228 (EPA 904.0)					E904.0	E903-904	Analyst: JEB
Radium-228	ND	1.00		pCi/L	± 0.5	1	3/4/2022 2:38:33 PM
Yield	1.00					1	3/4/2022 2:38:33 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
	ND	Not Detected	OG1	
	P	Second column confirmation exceeds	PL	Permit Limit



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QC SUMMARY REPORT

WO#: 22021386
 09-Mar-22

Client: TEKLAB Inc,
Project: 22011434

BatchID: 55267

Sample ID: 22021386-004ADUP	SampType: DUP	TestCode: Radium-228_	Units: pCi/L	Prep Date: 2/24/2022	RunNo: 140953						
Client ID: 22011434-004	Batch ID: 55267	TestNo: E904.0	E903-904	Analysis Date: 3/3/2022	SeqNo: 3717136						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.01	1.00		0	0			0.7900	24.4	30	
Yield	0.940			0	0			0.8800	6.59		

Sample ID: 22021386-003AMS	SampType: MS	TestCode: Radium-228_	Units: pCi/L	Prep Date: 2/24/2022	RunNo: 140953						
Client ID: 22011434-003	Batch ID: 55267	TestNo: E904.0	E903-904	Analysis Date: 3/3/2022	SeqNo: 3717146						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	6.13	1.00	5.000	0	123	70	130				
Yield	0.740			0.9900	0						

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range	H Holding times for preparation or analy
	J Analyte detected below quantitation limits	M Manual Integration used to determine area response	MC Value is below Minimum Compound
	ND Not Detected	OG1	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Original



Summit Environmental Technologies, Inc.
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QC SUMMARY REPORT

WO#: 22021386
 09-Mar-22

Client: TEKLAB Inc,
Project: 22011434

BatchID: 55267

Sample ID: MB-55267	SampType: MBLK	TestCode: Radium-228_	Units: pCi/L	Prep Date: 2/24/2022	RunNo: 140953						
Client ID: PBW	Batch ID: 55267	TestNo: E904.0	E903-904	Analysis Date: 3/3/2022	SeqNo: 3717126						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: LCS-55267	SampType: LCS	TestCode: Radium-228_	Units: pCi/L	Prep Date: 2/24/2022	RunNo: 140953						
Client ID: LCSW	Batch ID: 55267	TestNo: E904.0	E903-904	Analysis Date: 3/3/2022	SeqNo: 3717127						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.81	1.00	5.000	0	76.2	70	130				QLR
Yield	1.00			0	0						

Sample ID: LCSD-55267	SampType: LCSD	TestCode: Radium-228_	Units: pCi/L	Prep Date: 2/24/2022	RunNo: 140953						
Client ID: LCSS02	Batch ID: 55267	TestNo: E904.0	E903-904	Analysis Date: 3/3/2022	SeqNo: 3717128						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	5.57	1.00	5.000	0	111	70	130	3.810	37.5	20	R
Yield	0.910			0	0			1.000	9.42		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original



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QC SUMMARY REPORT

WO#: 22021386
 09-Mar-22

Client: TEKLAB Inc,
Project: 22011434

BatchID: 55267

Sample ID: RLC-55267	SampType: RLC	TestCode: Radium-228_	Units: pCi/L	Prep Date: 2/24/2022	RunNo: 140953						
Client ID: BatchQC	Batch ID: 55267	TestNo: E904.0	E903-904	Analysis Date: 3/3/2022	SeqNo: 3717147						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.33	1.00	1.000	0	133	50	150				
Yield	1.00			0	0						

Sample ID: RLCD-55267	SampType: RLC	TestCode: Radium-228_	Units: pCi/L	Prep Date: 2/24/2022	RunNo: 140953						
Client ID: BatchQC	Batch ID: 55267	TestNo: E904.0	E903-904	Analysis Date: 3/3/2022	SeqNo: 3717148						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.12	1.00	1.000	0	112	50	150				
Yield	1.00			0	0						

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range	H Holding times for preparation or analy
	J Analyte detected below quantitation limits	M Manual Integration used to determine area response	MC Value is below Minimum Compound
	ND Not Detected	OG1	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Original



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QC SUMMARY REPORT

WO#: **22021386**
09-Mar-22

Client: TEKLAB Inc,
Project: 22011434

BatchID: 55267

Sample ID: 22021386-003AMS	SampType: MS	TestCode: Radium-226_	Units: pCi/L	Prep Date: 2/24/2022	RunNo: 140954						
Client ID: 22011434-003	Batch ID: 55267	TestNo: E903.0	E903-904	Analysis Date: 3/3/2022	SeqNo: 3717156						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.95	1.00	5.000	0	99.0	70	130				

Sample ID: 22021386-004ADUP	SampType: DUP	TestCode: Radium-226_	Units: pCi/L	Prep Date: 2/24/2022	RunNo: 140954						
Client ID: 22011434-004	Batch ID: 55267	TestNo: E903.0	E903-904	Analysis Date: 3/3/2022	SeqNo: 3717164						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	30	
Yield	0.870							0.9100	4.49	0	

Sample ID: 22021386-006ADUP	SampType: DUP	TestCode: Radium-226_	Units: pCi/L	Prep Date: 2/24/2022	RunNo: 140954						
Client ID: 22011434-006	Batch ID: 55267	TestNo: E903.0	E903-904	Analysis Date: 3/3/2022	SeqNo: 3717167						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	30	
Yield	0.990							0.8900	10.6	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original



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QC SUMMARY REPORT

WO#: 22021386
 09-Mar-22

Client: TEKLAB Inc,
Project: 22011434

BatchID: 55267

Sample ID: MB-55267	SampType: MBLK	TestCode: Radium-226_	Units: pCi/L	Prep Date: 2/24/2022	RunNo: 140954
Client ID: PBW	Batch ID: 55267	TestNo: E903.0	E903-904	Analysis Date: 3/3/2022	SeqNo: 3717150
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Radium-226	ND	1.00			
Yield	1.00				

Sample ID: LCS-55267	SampType: LCS	TestCode: Radium-226_	Units: pCi/L	Prep Date: 2/24/2022	RunNo: 140954
Client ID: LCSW	Batch ID: 55267	TestNo: E903.0	E903-904	Analysis Date: 3/3/2022	SeqNo: 3717151
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Radium-226	5.03	1.00	5.000	0	101 70 130

Sample ID: LCSD-55267	SampType: LCSD	TestCode: Radium-226_	Units: pCi/L	Prep Date: 2/24/2022	RunNo: 140954
Client ID: LCSS02	Batch ID: 55267	TestNo: E903.0	E903-904	Analysis Date: 3/3/2022	SeqNo: 3717152
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Radium-226	5.90	1.00	5.000	0	118 70 130 5.030 15.9 20

Sample ID: RLC-55267	SampType: RLC	TestCode: Radium-226_	Units: pCi/L	Prep Date: 2/24/2022	RunNo: 140954
Client ID: BatchQC	Batch ID: 55267	TestNo: E903.0	E903-904	Analysis Date: 3/3/2022	SeqNo: 3717154
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Qualifiers:

B Analyte detected in the associated Method Blank	E Value above quantitation range	H Holding times for preparation or analy
J Analyte detected below quantitation limits	M Manual Integration used to determine area response	MC Value is below Minimum Compound
ND Not Detected	OG1	P Second column confirmation exceeds
PL Permit Limit	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Original



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QC SUMMARY REPORT

WO#: 22021386
 09-Mar-22

Client: TEKLAB Inc,
Project: 22011434

BatchID: 55267

Sample ID: RLC-55267	SampType: RLC	TestCode: Radium-226_	Units: pCi/L	Prep Date: 2/24/2022	RunNo: 140954						
Client ID: BatchQC	Batch ID: 55267	TestNo: E903.0	E903-904	Analysis Date: 3/3/2022	SeqNo: 3717154						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	1.20	1.00	1.000	0	120	50	150				

Sample ID: RLCD-55267	SampType: RLC	TestCode: Radium-226_	Units: pCi/L	Prep Date: 2/24/2022	RunNo: 140954						
Client ID: BatchQC	Batch ID: 55267	TestNo: E903.0	E903-904	Analysis Date: 3/3/2022	SeqNo: 3717155						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	1.02	1.00	1.000	0	102	50	150				

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range	H Holding times for preparation or analy
	J Analyte detected below quantitation limits	M Manual Integration used to determine area response	MC Value is below Minimum Compound
	ND Not Detected	OG1	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Original



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QC SUMMARY REPORT

WO#: 22021386
 09-Mar-22

Client: TEKLAB Inc,
Project: 22011434

BatchID: 55268

Sample ID: MB-55268	SampType: MBLK	TestCode: Radium-228_	Units: pCi/L	Prep Date: 2/25/2022	RunNo: 141026						
Client ID: PBW	Batch ID: 55268	TestNo: E904.0	E903-904	Analysis Date: 3/4/2022	SeqNo: 3718896						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: LCS-55268	SampType: LCS	TestCode: Radium-228_	Units: pCi/L	Prep Date: 2/25/2022	RunNo: 141026						
Client ID: LCSW	Batch ID: 55268	TestNo: E904.0	E903-904	Analysis Date: 3/4/2022	SeqNo: 3718897						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	4.87	1.00	5.000	0	97.4	70	130				QLR
Yield	1.00			0	0						

Sample ID: LCSD-55268	SampType: LCSD	TestCode: Radium-228_	Units: pCi/L	Prep Date: 2/25/2022	RunNo: 141026						
Client ID: LCSS02	Batch ID: 55268	TestNo: E904.0	E903-904	Analysis Date: 3/4/2022	SeqNo: 3718898						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.85	1.00	5.000	0	77.0	70	130	4.870	23.4	20	R
Yield	0.960			0	0			1.000	4.08		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original



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QC SUMMARY REPORT

WO#: 22021386
 09-Mar-22

Client: TEKLAB Inc,
Project: 22011434

BatchID: 55268

Sample ID: RLCD-55268	SampType: RLC	TestCode: Radium-228_	Units: pCi/L	Prep Date: 2/25/2022	RunNo: 141026						
Client ID: BatchQC	Batch ID: 55268	TestNo: E904.0	E903-904	Analysis Date: 3/4/2022	SeqNo: 3718900						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00	1.000	0	92.0	50	150				

Sample ID: RLC-55268	SampType: RLC	TestCode: Radium-228_	Units: pCi/L	Prep Date: 2/25/2022	RunNo: 141026						
Client ID: BatchQC	Batch ID: 55268	TestNo: E904.0	E903-904	Analysis Date: 3/4/2022	SeqNo: 3718919						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00	1.000	0	78.0	50	150				

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range	H Holding times for preparation or analy
	J Analyte detected below quantitation limits	M Manual Integration used to determine area response	MC Value is below Minimum Compound
	ND Not Detected	OG1	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Original



Summit Environmental Technologies, Inc.
 3310 Win St.
 Cuyahoga Falls, Ohio 44223
 TEL: (330) 253-8211 FAX: (330) 253-4489
 Website: <http://www.settek.com>

QC SUMMARY REPORT

WO#: 22021386
 09-Mar-22

Client: TEKLAB Inc,
Project: 22011434

BatchID: 55268

Sample ID: 22021112-001ADUP	SampType: DUP	TestCode: Radium-228_	Units: pCi/L	Prep Date: 2/25/2022	RunNo: 141026						
Client ID: BatchQC	Batch ID: 55268	TestNo: E904.0	E903-904	Analysis Date: 3/4/2022	SeqNo: 3718904						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	
Yield	1.00			0	0			1.000	0		

Sample ID: 22021114-001ADUP	SampType: DUP	TestCode: Radium-228_	Units: pCi/L	Prep Date: 2/25/2022	RunNo: 141026						
Client ID: BatchQC	Batch ID: 55268	TestNo: E904.0	E903-904	Analysis Date: 3/4/2022	SeqNo: 3718906						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	
Yield	1.00			0	0			0.8900	11.6		

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range	H Holding times for preparation or analy
	J Analyte detected below quantitation limits	M Manual Integration used to determine area response	MC Value is below Minimum Compound
	ND Not Detected	OG1	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Original



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QC SUMMARY REPORT

WO#: 22021386
 09-Mar-22

Client: TEKLAB Inc,
Project: 22011434

BatchID: 55268

Sample ID: MB-55268	SampType: MBLK	TestCode: Radium-226_	Units: pCi/L	Prep Date: 2/25/2022	RunNo: 141033						
Client ID: PBW	Batch ID: 55268	TestNo: E903.0	E903-904	Analysis Date: 3/4/2022	SeqNo: 3718970						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: LCS-55268	SampType: LCS	TestCode: Radium-226_	Units: pCi/L	Prep Date: 2/25/2022	RunNo: 141033						
Client ID: LCSW	Batch ID: 55268	TestNo: E903.0	E903-904	Analysis Date: 3/4/2022	SeqNo: 3718971						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.26	1.00	5.000	0	85.2	70	130				

Sample ID: LCSD-55268	SampType: LCSD	TestCode: Radium-226_	Units: pCi/L	Prep Date: 2/25/2022	RunNo: 141033						
Client ID: LCSS02	Batch ID: 55268	TestNo: E903.0	E903-904	Analysis Date: 3/4/2022	SeqNo: 3718972						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.14	1.00	5.000	0	103	70	130	4.260	18.7	20	

Sample ID: RLC-55268	SampType: RLC	TestCode: Radium-226_	Units: pCi/L	Prep Date: 2/25/2022	RunNo: 141033						
Client ID: BatchQC	Batch ID: 55268	TestNo: E903.0	E903-904	Analysis Date: 3/4/2022	SeqNo: 3718974						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original



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 Website: <http://www.settek.com>

QC SUMMARY REPORT

WO#: 22021386
 09-Mar-22

Client: TEKLAB Inc,
Project: 22011434

BatchID: 55268

Sample ID: RLC-55268	SampType: RLC	TestCode: Radium-226_	Units: pCi/L	Prep Date: 2/25/2022	RunNo: 141033						
Client ID: BatchQC	Batch ID: 55268	TestNo: E903.0	E903-904	Analysis Date: 3/4/2022	SeqNo: 3718974						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00	1.000	0	67.0	50	150				

Sample ID: RLCD-55268	SampType: RLC	TestCode: Radium-226_	Units: pCi/L	Prep Date: 2/25/2022	RunNo: 141033						
Client ID: BatchQC	Batch ID: 55268	TestNo: E903.0	E903-904	Analysis Date: 3/4/2022	SeqNo: 3719007						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00	1.000	0	61.0	50	150				

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range	H Holding times for preparation or analy
	J Analyte detected below quantitation limits	M Manual Integration used to determine area response	MC Value is below Minimum Compound
	ND Not Detected	OG1	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Original



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 Cuyahoga Falls, Ohio 44223
 TEL: (330) 253-8211 FAX: (330) 253-4489
 Website: <http://www.settek.com>

QC SUMMARY REPORT

WO#: 22021386
 09-Mar-22

Client: TEKLAB Inc,
Project: 22011434

BatchID: 55391

Sample ID: RLCD-55391	SampType: RLC	TestCode: Radium-228_	Units: pCi/L	Prep Date: 3/7/2022	RunNo: 141176						
Client ID: BatchQC	Batch ID: 55391	TestNo: E904.0	E903-904	Analysis Date: 3/8/2022	SeqNo: 3722587						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.06	1.00	1.000	0	106	50	150				
Yield	1.00			0	0						

Sample ID: 22021558-001AMS	SampType: MS	TestCode: Radium-228_	Units: pCi/L	Prep Date: 3/7/2022	RunNo: 141176						
Client ID: BatchQC	Batch ID: 55391	TestNo: E904.0	E903-904	Analysis Date: 3/8/2022	SeqNo: 3722588						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	5.63	1.00	5.000	0.8400	95.8	70	130				
Yield	1.00			1.000	0						

Sample ID: 22021789-001ADUP	SampType: DUP	TestCode: Radium-228_	Units: pCi/L	Prep Date: 3/7/2022	RunNo: 141176						
Client ID: BatchQC	Batch ID: 55391	TestNo: E904.0	E903-904	Analysis Date: 3/8/2022	SeqNo: 3722594						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.05	1.00		0	0			0.9300	12.1	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original



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 Cuyahoga Falls, Ohio 44223
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QC SUMMARY REPORT

WO#: 22021386
 09-Mar-22

Client: TEKLAB Inc,
Project: 22011434

BatchID: 55391

Sample ID: 22030062-003ADUP	SampType: DUP	TestCode: Radium-228_	Units: pCi/L	Prep Date: 3/7/2022	RunNo: 141176						
Client ID: BatchQC	Batch ID: 55391	TestNo: E904.0	E903-904	Analysis Date: 3/8/2022	SeqNo: 3722596						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	R
Yield	1.00			0	0			1.000	0		

Sample ID: MB-55391	SampType: MBLK	TestCode: Radium-228_	Units: pCi/L	Prep Date: 3/7/2022	RunNo: 141176						
Client ID: PBW	Batch ID: 55391	TestNo: E904.0	E903-904	Analysis Date: 3/8/2022	SeqNo: 3722603						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	0.940			0	0						

Sample ID: LCS-55391	SampType: LCS	TestCode: Radium-228_	Units: pCi/L	Prep Date: 3/7/2022	RunNo: 141176						
Client ID: LCSW	Batch ID: 55391	TestNo: E904.0	E903-904	Analysis Date: 3/8/2022	SeqNo: 3722604						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	4.99	1.00	5.000	0	99.8	70	130				
Yield	1.00			0	0						

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

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QC SUMMARY REPORT

WO#: 22021386
09-Mar-22

Client: TEKLAB Inc,
Project: 22011434

BatchID: 55391

Sample ID: RLC-55391	SampType: RLC	TestCode: Radium-228_	Units: pCi/L	Prep Date: 3/7/2022	RunNo: 141176						
Client ID: BatchQC	Batch ID: 55391	TestNo: E904.0	E903-904	Analysis Date: 3/8/2022	SeqNo: 3722605						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.41	1.00	1.000	0	141	50	150				
Yield	0.910			0	0						

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range	H Holding times for preparation or analy
	J Analyte detected below quantitation limits	M Manual Integration used to determine area response	MC Value is below Minimum Compound
	ND Not Detected	OG1	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Original

TEKLAB, INC. Chain of Custody

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

2202-1386

Are the samples chilled? YES NO With: Ice Blute-Ice Lab Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Project# 22011434

Cooler Temp: [] Sampler: J.Riley/A Bridges QC Level: 2

Contact: Shelly A. Hennessy Email: shennessy@teklabinc.com
Requested Due Date: STD TAT Billing/PO: 32473

Phone: (618) 344-1004 ext 36

Comments: Please issue reports and invoices via email only
Please analyze for Radium 226/228 by EPA 903.0/904.0 on your standard turn around time.

Batch QC is required for all analyses requested.
Any changes to analysis/methods must be approved by Teklab, Inc.

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix
-	22011434-001	2/16/22 1334	HNO3	Groundwater
-	22011434-002	2/15/22 1155	HNO3	Groundwater
	22011434-003	2/15/22 1131	HNO3	Groundwater
	22011434-004	2/15/22 1108	HNO3	Groundwater
	22011434-005	2/16/22 1005	HNO3	Groundwater
	22011434-006	2/16/22 1037	HNO3	Groundwater
	22011434-007	2/15/22 1346	HNO3	Groundwater
	22011434-008	2/15/22 1433	HNO3	Groundwater
	22011434-009	2/15/22 1312	HNO3	Groundwater
	22011434-010	2/15/22 1501	HNO3	Groundwater
	22011434-012	2/16/22 1251	HNO3	Groundwater

*Relinquished By: *Mary Karp* Date/Time: 2/17/22 1000

Received By: *J. Riley* Date/Time: 2/22/22 1315

13.4-10E12.4c #1
6.7-10E5.7c #2
4.5-10E3.5c #3
8.0-1.0E7.0c #4

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization, and proprietary rights, and proprietary rights, SubCode (VA) 3/2016

Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

TEKLAB, INC. Chain of Custody

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

22021386

Are the samples chilled? YES NO With: Ice Blue Ice Preserved in: Lab Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: Sampler: QC Level:

Project#

Contact: Email:

Requested Due Date: Billing/PO:

Comments: **Please issue reports and invoices via email only**
Please analyze for Radium 22/228 by EPA 903.0/904.0 on your standard turn around time.
Batch QC is required for all analyses requested.
Any changes to analysis/methods must be approved by Teklab, Inc.
Phone:

PLEASE NOTE:

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Ra226/228														
	22011434-013	2/16/22 1217	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	22011434-014	2/16/22 1134	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	22011434-015	2/16/22 0934	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			HNO3	Groundwater	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			HNO3	Groundwater	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			HNO3	Groundwater	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			HNO3	Groundwater	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			HNO3	Groundwater	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			HNO3	Groundwater	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			HNO3	Groundwater	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Con 30.33 pH 7.1
Con 16.6 pH 7.1
Con 30.40 pH 7.1

*Relinquished By	Date/Time	Received By	Date/Time
<i>Mary Kemp</i>	2/17/22 1600	<i>J. Riley</i>	2/21/22 13.15

13.4-1.0=12.4°C #1
6.7-1.0=5.7°C #2
4.5-1.0=3.5°C #3
8.0-1.0=7.0°C #4

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SubCodRev 3/2/2016 #4

Resp. to 1st RTG Suppl #5
CMLP - 30511



Summit Environmental Technologies, Inc.
 3310 Win St.
 Cuyahoga Falls, Ohio 44223
 TEL: (330) 253-8211 FAX: (330) 253-4489
 Website: <http://www.settek.com>

Sample Log-In Check List

Client Name: **TEK-IL-62234-A**

Work Order Number: **22021386**

RcptNo: **1**

Logged by:	John T. Woolf	2/21/2022 1:15:00 PM	<i>John T. Woolf</i>
Completed By:	John T. Woolf	2/21/2022 4:04:18 PM	<i>John T. Woolf</i>
Reviewed By:	Jennifer Woolf	2/21/2022 4:27:41 PM	<i>Jennifer Woolf</i>

Chain of Custody

- Were seals intact? Yes No Not Present
- Is Chain of Custody complete? Yes No Not Present
- How was the sample delivered? FedEx

Log In

- Coolers are present? Yes No NA
- Was an attempt made to cool the samples? Yes No NA
- Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
- Sample(s) in proper container(s)? Yes No
- Sufficient sample volume for indicated test(s)? Yes No
- Are samples (except VOA and ONG) properly preserved? Yes No
- Was preservative added to bottles? Yes No NA
- Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes No No VOA Vials
- Were any sample containers received broken? Yes No
- Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes No
- Are matrices correctly identified on Chain of Custody? Yes No
- Is it clear what analyses were requested? Yes No
- Were all holding times able to be met?
(If no, notify customer for authorization.) Yes No

Special Handling (if applicable)

- Was client notified of all discrepancies with this order? Yes No NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

- Additional remarks:

no
 project address not included
 combined?

Cooler Information



Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: <http://www.settek.com>

Sample Log-In Check List

Client Name: **TEK-IL-62234-A**

Work Order Number: **22021386**

RcptNo: 1

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
2	5.7	Good	Not Present			
3	3.5	Good	Not Present			
4	7.0	Good	Not Present			
cooler	12.4	Good	Not Present			

April 12, 2022

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615



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

RE: Ash Pond Monitoring Wells

WorkOrder: 22031261

Dear Eric Staley:

TEKLAB, INC received 1 sample on 3/18/2022 12:30:00 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,



Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com



Report Contents

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

Client: City Water, Light & Power

Work Order: 22031261

Client Project: Ash Pond Monitoring Wells

Report Date: 12-Apr-22

This reporting package includes the following:

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

Client: City Water, Light & Power

Work Order: 22031261

Client Project: Ash Pond Monitoring Wells

Report Date: 12-Apr-22

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: City Water, Light & Power

Work Order: 22031261

Client Project: Ash Pond Monitoring Wells

Report Date: 12-Apr-22

Qualifiers

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



Case Narrative

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

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 22031261
Report Date: 12-Apr-22

Cooler Receipt Temp: 11.0 °C

An employee of Teklab, Inc. collected the sample(s).

Radium-226 and Radium-228 analysis was performed by Summit Environmental Technologies, Inc. See attached report for results.

Locations

Collinsville

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

Collinsville Air

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

Springfield

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

Chicago

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

Kansas City

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



Accreditations

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

Client: City Water, Light & Power

Work Order: 22031261

Client Project: Ash Pond Monitoring Wells

Report Date: 12-Apr-22

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2023	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2022	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2022	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2022	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2022	Collinsville
Arkansas	ADEQ	88-0966		3/14/2023	Collinsville
Illinois	IDPH	17584		5/31/2023	Collinsville
Kentucky	UST	0073		1/31/2023	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 22031261-001
 Matrix: GROUNDWATER

Work Order: 22031261
 Report Date: 12-Apr-22

Client Sample ID: AP-10

Collection Date: 03/18/2022 10:46

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		499.43	ft	1	03/18/2022 10:46	R308763
Depth to water	*	-5.00		1.51	ft	1	03/18/2022 10:46	R308763
Depth to water from measuring point	*	0		4.61	ft	1	03/18/2022 10:46	R308763
Elevation of groundwater surface	*	0		532.89	ft	1	03/18/2022 10:46	R308763
Measuring Point Elevation	*	0		537.50	ft	1	03/18/2022 10:46	R308763
Measuring Point Height Above Land Surface	*	0		3.10	ft	1	03/18/2022 10:46	R308763
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		9.0	NTU	1	03/18/2022 10:46	R308763
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		55.6	°F	1	03/18/2022 10:46	R308763
SW-846 9040B								
pH, Field	*	1.00		6.54		1	03/18/2022 10:46	R308763
SW-846 9050A								
Spec. Conductance, Field	*	1.00		1770	µmhos/cm @25C	1	03/18/2022 10:46	R308763
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	50		740	mg/L	2.5	03/24/2022 8:05	R308809
SW-846 9036 (TOTAL)								
Sulfate	NELAP	50		86	mg/L	5	03/21/2022 23:05	R308553
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.34	mg/L	1	03/22/2022 7:59	R308531
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		28	mg/L	1	03/21/2022 23:00	R308507
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	03/23/2022 17:39	188826
Barium	NELAP	0.0025		0.583	mg/L	1	03/23/2022 17:39	188826
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	03/23/2022 17:39	188826
Boron	NELAP	0.0200		3.51	mg/L	1	03/23/2022 17:39	188826
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	03/23/2022 17:39	188826
Calcium	NELAP	0.100	S	143	mg/L	1	03/23/2022 17:39	188826
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	03/23/2022 17:39	188826
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	03/23/2022 17:39	188826
Lead	NELAP	0.0150		< 0.0150	mg/L	1	03/23/2022 17:39	188826
Lithium	NELAP	0.0050		0.0094	mg/L	1	03/24/2022 14:19	188826
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	03/23/2022 17:39	188826
<i>Matrix spike control limits for Ca are not applicable due to high sample/spike ratio.</i>								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	03/23/2022 19:29	188826
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	03/23/2022 19:29	188826
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	03/23/2022 21:56	188826
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	03/23/2022 18:06	188829
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	04/08/2022 0:00	R309468
Radium-228	*	0		See attached	pci/L	1	04/08/2022 0:00	R309468



Receiving Check List

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

Client: City Water, Light & Power

Work Order: 22031261

Client Project: Ash Pond Monitoring Wells

Report Date: 12-Apr-22

Carrier: Joe Riley

Received By: PWR

Completed by:

Mary E. Kemp

Reviewed by:

Shelly A. Hennessy

On:

18-Mar-22

Mary E. Kemp

On:

18-Mar-22

Shelly A. Hennessy

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 11.0 |
| Type of thermal preservation? | None <input type="checkbox"/> | Ice <input checked="" 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 checked="" type="checkbox"/> | Lab <input type="checkbox"/> | NA <input 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 type="checkbox"/> | No <input checked="" 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.

pH strip #78011. - MKemp - 3/18/2022 12:43:03 PM

Additional nitric acid (80810) was needed upon arrival at the laboratory. - MKemp - 3/18/2022 12:43:10 PM

CHAIN OF CUSTODY

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

Client: City Water, Light & Power
Address: 3100 Stevenson Drive, 2nd Floor Maintenance Building
City/State/Zip: Springfield IL 62712
Contact: Eric Staley Phone: (217) 757-8610
Email: eric.staley@cwlp.com Fax:

Samples on: [X] ICE [] BLUE ICE [] NO ICE 11.0 °C
Preserved in: [X] LAB [] FIELD FOR LAB USE ONLY LTG-S
LAB NOTES: 78011, additional HNO3 (80810) m/c 3/18/22
Resample - well was frozen during Feb sampling 3/18/22

Are these samples known to be involved in litigation? If yes, a surcharge will apply: [] Yes [X] No
Are these samples known to be hazardous? [] Yes [X] No
Are there any required reporting limits to be met on the requested analysis? If yes, please provide limits in the comment section: [X] Yes [X] No Permit on file

Client Comments:
*elevations, pH, conductivity, temperature
**Sb Se Tl (ICPMS) As Ba Be B Cd Ca Cr Co Pb Li Hg Mo
Quarterly monitoring

PROJECT NAME/NUMBER: Ash Pond Monitoring Wells
SAMPLE COLLECTOR'S NAME: J. RILEY
RESULTS REQUESTED: [X] Standard [] 12 Day (100% Surcharge) [] Other [] 3 Day (50% Surcharge)
BILLING INSTRUCTIONS:

Table with columns for # and Type of Containers (UNP, HNO3, NaOH, H2SO4, HCL, MeOH, NaHSO4, TSP, Other) and INDICATE ANALYSIS REQUESTED (Field parameters, Cl F SO4 TDS, Metals, Radium-226, Radium-228, Field Turbidity).

Table with columns: Lab Use Only, Sample ID (RW-3 to AP-10), Date/Time Sampled, Matrix (Groundwater).

Relinquished By: [Signature] Date/Time: 03/18/22 12:30

Received By: [Signature] Date/Time: 3/18/22 12:30

*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



Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: <http://www.settek.com>

April 11, 2022

Shelly Hennessy
TEKLAB Inc,
5445 Horseshoe lake Road
Collinsville, IL 62234
TEL:
FAX:
RE: 22031261-001

Order No.: 22031526

Dear Shelly Hennessy:

Summit Environmental Technologies, Inc. received 1 sample(s) on 3/22/2022 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

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

Sincerely,

Jennifer Woolf
Project Manager
3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 011, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C



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Case Narrative

WO#: 22031526
Date: 4/11/2022

CLIENT: TEKLAB Inc,
Project: 22031261-001

WorkOrder Narrative:

22031526: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

Original

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	RL	Reporting Limit
QC	Quality Control	MDL	Method Detection Limit
MB	Method Blank	LOD	Level of Detection
LCS	Laboratory Control Sample	LOQ	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	PQL	Practical Quantitation Limit
QCS	Quality Control Sample	CRQL	Contract Required Quantitation Limit
DUP	Duplicate	PL	Permit Limit
MS	Matrix Spike	RegLvl	Regulatory Limit
MSD	Matrix Spike Duplicate	MCL	Maximum Contamination Limit
RPD	Relative Percent Different	MinCL	Minimum Compound Limit
ICV	Initial Calibration Verification	RA	Reanalysis
ICB	Initial Calibration Blank	RE	Reextraction
CCV	Continuing Calibration Verification	TIC	Tentatively Identified Compound
CCB	Continuing Calibration Blank	RT	Retention Time
RLC	Reporting Limit Check	CF	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.



Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: <http://www.settek.com>

Workorder
Sample Summary
WO#: 22031526
11-Apr-22

CLIENT: TEKLAB Inc,
Project: 22031261-001

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
22031526-001	22031261-001B		3/18/2022 10:46:00 AM	3/22/2022 11:30:00 AM	Groundwater



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DATES REPORT

WO#: 22031526
11-Apr-22

Client: TEKLAB Inc,
Project: 22031261-001

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
22031526-001A	22031261-001B	3/18/2022 10:46:00 AM	Groundwater	Radium-226 (EPA 903.0)		4/1/2022 11:05:00 AM	4/11/2022 10:10:00 AM
				Radium-228 (EPA 904.0)		4/1/2022 11:05:00 AM	4/8/2022 6:30:00 PM

Original



Summit Environmental Technologies, Inc.
 3310 Win St.
 Cuyahoga Falls, Ohio 44223
 TEL: (330) 253-8211 FAX: (330) 253-4489
 Website: <http://www.settek.com>

Analytical Report

(consolidated)

WO#: 22031526

Date Reported: 4/11/2022

CLIENT: TEKLAB Inc,
Project: 22031261-001
Lab ID: 22031526-001
Client Sample ID: 22031261-001B

Collection Date: 3/18/2022 10:46:00 AM

Matrix: GROUNDWATER

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (EPA 903.0)					E903.0	E903-904	Analyst: HDJ
Radium-226	ND	1.00		pCi/L	± 0.24	1	4/11/2022 10:10:00 AM
Yield	1.00					1	4/11/2022 10:10:00 AM
RADIUM-228 (EPA 904.0)					E904.0	E903-904	Analyst: HDJ
Radium-228	ND	1.00		pCi/L	± 0.86	1	4/8/2022 6:30:00 PM
Yield	1.00					1	4/8/2022 6:30:00 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
	ND	Not Detected	OG1	
	P	Second column confirmation exceeds	PL	Permit Limit



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QC SUMMARY REPORT

WO#: 22031526
 11-Apr-22

Client: TEKLAB Inc,
Project: 22031261-001

BatchID: 55953

Sample ID: MB-55953	SampType: MBLK	TestCode: Radium-228_	Units: pCi/L	Prep Date: 4/1/2022	RunNo: 142688						
Client ID: PBW	Batch ID: 55953	TestNo: E904.0	E903-904	Analysis Date: 4/8/2022	SeqNo: 3762873						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	1.00			0	0						

Sample ID: LCS-55953	SampType: LCS	TestCode: Radium-228_	Units: pCi/L	Prep Date: 4/1/2022	RunNo: 142688						
Client ID: LCSW	Batch ID: 55953	TestNo: E904.0	E903-904	Analysis Date: 4/8/2022	SeqNo: 3762874						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.61	1.00	5.000	0	72.2	70	130				
Yield	1.00			0	0						

Sample ID: LCSD-55953	SampType: LCSD	TestCode: Radium-228_	Units: pCi/L	Prep Date: 4/1/2022	RunNo: 142688						
Client ID: LCSS02	Batch ID: 55953	TestNo: E904.0	E903-904	Analysis Date: 4/8/2022	SeqNo: 3762875						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.50	1.00	5.000	0	70.0	70	130	3.610	3.09	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original



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QC SUMMARY REPORT

WO#: 22031526

11-Apr-22

Client: TEKLAB Inc,
Project: 22031261-001

BatchID: 55953

Sample ID: RLCD-55953	SampType: RLC	TestCode: Radium-228_ Units: pCi/L				Prep Date: 4/1/2022	RunNo: 142688				
Client ID: BatchQC	Batch ID: 55953	TestNo: E904.0		E903-904	Analysis Date: 4/8/2022	SeqNo: 3762878					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00	1.000	0	68.0	50	150				
Yield	1.00			0	0						

Sample ID: 22031321-005AMS	SampType: MS	TestCode: Radium-228_ Units: pCi/L				Prep Date: 4/1/2022	RunNo: 142688				
Client ID: BatchQC	Batch ID: 55953	TestNo: E904.0		E903-904	Analysis Date: 4/8/2022	SeqNo: 3762879					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.92	1.00	5.000	0	78.4	70	130				
Yield	1.00			1.000	0						

Sample ID: 22031321-006ADUP	SampType: DUP	TestCode: Radium-228_ Units: pCi/L				Prep Date: 4/1/2022	RunNo: 142688				
Client ID: BatchQC	Batch ID: 55953	TestNo: E904.0		E903-904	Analysis Date: 4/8/2022	SeqNo: 3762882					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	R
Yield	1.00			0	0			1.000	0		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original



Summit Environmental Technologies, Inc.
 3310 Win St.
 Cuyahoga Falls, Ohio 44223
 TEL: (330) 253-8211 FAX: (330) 253-4489
 Website: <http://www.settek.com>

QC SUMMARY REPORT

WO#: 22031526
 11-Apr-22

Client: TEKLAB Inc,
Project: 22031261-001

BatchID: 55953

Sample ID: 22031321-007ADUP	SampType: DUP	TestCode: Radium-228_	Units: pCi/L	Prep Date: 4/1/2022	RunNo: 142688						
Client ID: BatchQC	Batch ID: 55953	TestNo: E904.0	E903-904	Analysis Date: 4/8/2022	SeqNo: 3762884						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	
Yield	1.00			0	0			1.000	0		

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range	H Holding times for preparation or analy
	J Analyte detected below quantitation limits	M Manual Integration used to determine area response	MC Value is below Minimum Compound
	ND Not Detected	OG1	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Original



Summit Environmental Technologies, Inc.
 3310 Win St.
 Cuyahoga Falls, Ohio 44223
 TEL: (330) 253-8211 FAX: (330) 253-4489
 Website: <http://www.settek.com>

QC SUMMARY REPORT

WO#: 22031526
 11-Apr-22

Client: TEKLAB Inc,
Project: 22031261-001

BatchID: 55953

Sample ID: MB-55953	SampType: MBLK	TestCode: Radium-226_	Units: pCi/L	Prep Date: 4/1/2022	RunNo: 142690						
Client ID: PBW	Batch ID: 55953	TestNo: E903.0	E903-904	Analysis Date: 4/11/2022	SeqNo: 3762932						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	1.00										

Sample ID: LCS-55953	SampType: LCS	TestCode: Radium-226_	Units: pCi/L	Prep Date: 4/1/2022	RunNo: 142690						
Client ID: LCSW	Batch ID: 55953	TestNo: E903.0	E903-904	Analysis Date: 4/11/2022	SeqNo: 3762933						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.40	1.00	5.000	0	88.0	70	130				

Sample ID: LCSD-55953	SampType: LCSD	TestCode: Radium-226_	Units: pCi/L	Prep Date: 4/1/2022	RunNo: 142690						
Client ID: LCSS02	Batch ID: 55953	TestNo: E903.0	E903-904	Analysis Date: 4/11/2022	SeqNo: 3762934						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.04	1.00	5.000	0	80.8	70	130	4.400	8.53	20	

Sample ID: RLC-55953	SampType: RLC	TestCode: Radium-226_	Units: pCi/L	Prep Date: 4/1/2022	RunNo: 142690						
Client ID: BatchQC	Batch ID: 55953	TestNo: E903.0	E903-904	Analysis Date: 4/11/2022	SeqNo: 3762936						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original



Summit Environmental Technologies, Inc.
 3310 Win St.
 Cuyahoga Falls, Ohio 44223
 TEL: (330) 253-8211 FAX: (330) 253-4489
 Website: <http://www.settek.com>

QC SUMMARY REPORT

WO#: 22031526
 11-Apr-22

Client: TEKLAB Inc,
Project: 22031261-001

BatchID: 55953

Sample ID: RLC-55953	SampType: RLC	TestCode: Radium-226_	Units: pCi/L	Prep Date: 4/1/2022	RunNo: 142690						
Client ID: BatchQC	Batch ID: 55953	TestNo: E903.0	E903-904	Analysis Date: 4/11/2022	SeqNo: 3762936						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00	1.000	0	74.0	50	150				

Sample ID: RLCD-55953	SampType: RLC	TestCode: Radium-226_	Units: pCi/L	Prep Date: 4/1/2022	RunNo: 142690						
Client ID: BatchQC	Batch ID: 55953	TestNo: E903.0	E903-904	Analysis Date: 4/11/2022	SeqNo: 3762937						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	1.07	1.00	1.000	0	107	50	150				

Sample ID: 22031321-006ADUP	SampType: DUP	TestCode: Radium-226_	Units: pCi/L	Prep Date: 4/1/2022	RunNo: 142690						
Client ID: BatchQC	Batch ID: 55953	TestNo: E903.0	E903-904	Analysis Date: 4/11/2022	SeqNo: 3762939						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	
Yield	1.00							1.000	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

Pg. ___ of ___

TEKLAB, INC. Chain of Custody

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

22031261

Are the samples chilled? YES NO With: Ice Blue Ice Preserved In: Lab Field

QC Level: 1 2

Sampler: J. Riley

Comments: **Please issue reports and invoices via email only**
 Please analyze for Radium 226 and Radium 228 by EPA 903.0/904.0 on your
 standard turn around time.
 Batch QC is required for all analyses requested.

Project#: 22031261
 Cooler Temp: 13.7
 13.8-0.1

Contact: Shelly A. Hennessy
 Email: shennessy@teklabinc.com
 Billing/PO: STD TAT
 Requested Due Date:

Phone: (618) 344-1004 ext 36
 Feder, no ice,
 cooler

PLEASE NOTE:
 NELAP accreditation is required on the requested analytes and must be documented as such on the final report.
 If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes,
 please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any
 analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium-226	Radium-228														
	22031261-001B	3/18/22 1046	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>														
			Unpres	Drinking Water	<input type="checkbox"/>	<input type="checkbox"/>														
			Unpres	Drinking Water	<input type="checkbox"/>	<input type="checkbox"/>														
			Unpres	Drinking Water	<input type="checkbox"/>	<input type="checkbox"/>														
			Unpres	Drinking Water	<input type="checkbox"/>	<input type="checkbox"/>														
			Unpres	Drinking Water	<input type="checkbox"/>	<input type="checkbox"/>														
			Unpres	Drinking Water	<input type="checkbox"/>	<input type="checkbox"/>														
			Unpres	Drinking Water	<input type="checkbox"/>	<input type="checkbox"/>														
			Unpres	Drinking Water	<input type="checkbox"/>	<input type="checkbox"/>														
			Unpres	Drinking Water	<input type="checkbox"/>	<input type="checkbox"/>														
			Unpres	Drinking Water	<input type="checkbox"/>	<input type="checkbox"/>														
			Unpres	Drinking Water	<input type="checkbox"/>	<input type="checkbox"/>														

Relinquished By <i>Mary Kemp</i>	Date/Time	Received By <i>Steph Peckhardt</i>	Date/Time
			3/22/22 11:30

Teklab maintains a strict policy of client confidentiality and as such does not provide client/sampler information without proper authorization, and proprietary rights.
 Teklab, Inc. protects clients' confidential information as directed by local, state or federal laws. (Teklab QAM Section 9.1, TNI V1 M2 Section 4.1.5 c)

Sub-CorRevA
 3/2/2016



Sample Log-In Check List

Client Name: **TEK-IL-62234-A**

Work Order Number: **22031526**

RcptNo: **1**

Logged by:	Tegan A. Richards	3/22/2022 11:30:00 AM	<i>Tegan Richards</i>
Completed By:	Tegan A. Richards	3/23/2022 2:08:01 PM	<i>Tegan Richards</i>
Reviewed By:	Jennifer Woolf	3/23/2022 3:56:32 PM	<i>Jennifer Woolf</i>

Chain of Custody

- Were seals intact? Yes No Not Present
- Is Chain of Custody complete? Yes No Not Present
- How was the sample delivered? FedEx

Log In

- Coolers are present? Yes No NA
- Was an attempt made to cool the samples? Yes No NA
- Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
- Sample(s) in proper container(s)? Yes No
- Sufficient sample volume for indicated test(s)? Yes No
- Are samples (except VOA and ONG) properly preserved? Yes No
- Was preservative added to bottles? Yes No NA
- Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes No No VOA Vials
- Were any sample containers received broken? Yes No
- Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes No
- Are matrices correctly identified on Chain of Custody? Yes No
- Is it clear what analyses were requested? Yes No
- Were all holding times able to be met?
(If no, notify customer for authorization.) Yes No

Special Handling (if applicable)

- Was client notified of all discrepancies with this order? Yes No NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

- Additional remarks:
 IL per email
 project state not included

Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
box	13.7	Good	Not Present			

**City Water, Light & Power
Coal Combustion Residuals Surface Impoundments**

**Annual Groundwater Monitoring and
Corrective Action Report
Year Ending December 31, 2019**

January 2020



Prepared for:
City Water, Light & Power
201 E. Lake Shore Drive
Springfield, Illinois



3300 Ginger Creek Drive, Springfield, IL 62711 | 217.787.2334

ILLINOIS | MISSOURI | INDIANA

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1. INTRODUCTION

In accordance with 40 CFR 257.90(e), provided herein is the Annual Groundwater Monitoring and Corrective Action Report for year ending December 31, 2019.

City Water, Light and Power (CWLP) owns and operates two (2) existing coal combustion residual (CCR) surface impoundments. The CWLP CCR surface impoundments are located north and east of the former Lakeside Power Generating Station and Dallman Power Generating Station in the Eastern ½ of Section 12, Township 15 North, Range 5 West, in Springfield, Illinois (see Figure 1). These CCR surface impoundments are identified as the Lakeside Ash Pond and the Dallman Ash Pond (see Figure 2).

The former Lakeside Power Generating Station and Dallman Power Generating Station are situated on the northwestern bank of Lake Springfield in Springfield, Illinois. The Lakeside Ash Pond is immediately north of Spaulding Dam at the northern end of Lake Springfield. The Dallman Ash Pond is immediately northwest of the Lakeside Ash Pond. Placed into service prior to 1958, the Lakeside Ash Pond is primarily a diked embankment. The Lakeside Ash Pond consists of four separate ponds (i.e., three lime softening ponds and a settling pond) totaling approximately 35.0 acres. The Lakeside Ash Pond ceased receiving ash in 2009. The Dallman Ash Pond was placed into service in approximately 1976 and is also a diked embankment. The Dallman Ash Pond is approximately 34.5 acres. Fly ash and bottom ash are sluiced to the Dallman Ash Pond with raw lake water.

2. GROUNDWATER MONITORING PROGRAM

As required by §257.90(b), CWLP prepared and placed into the facility record a Groundwater Monitoring Program for the CCR surface impoundments in October 2017. The current monitoring network includes two upgradient wells (wells AP-4 and AP-5) and four downgradient wells (AP-1, AP-2, AP-3, and RW-3). The well locations are depicted in Figure 2.

Due to a potential integrity issue at Well AW-3, the well was replaced and the new well RW-3 implemented in the monitor well system prior to the sampling event in May, 2018. Replacement of the well occurred to ensure compliance with §257.91(c). The Groundwater Monitoring Program was revised to address the well replacement, placed in the site record and uploaded to the CWLP website. A Groundwater Monitoring System Certification was provided for the revised Groundwater Monitoring Program, also placed in the site record and uploaded to the aforementioned website.

The following sections of the report address the annual groundwater monitoring and corrective action report requirements outlined in 40 CFR 257.90(e).

3. 40 CFR 257.90(E): KEY ACTIONS, PROBLEMS ENCOUNTERED, AND KEY ACTIVITIES FOR 2019

3.1 Key Actions

The following items identify key actions that occurred in 2019 specifically related to the Groundwater Monitoring Program.

3.1.1 Assessment Monitoring

The first sampling event for routine detection monitoring occurred in November, 2017, which indicated statistically significant increase (SSI) over background levels for 40 CFR Part 257 Appendix III parameters boron, calcium, chloride, pH, sulfate, and total dissolved solids (TDS). In accordance with 40 CFR 257.95, an Assessment Monitoring Program was implemented in February 2018. Pursuant to §257.95(b), the Assessment Monitoring Program requires groundwater monitoring for all constituents listed in Appendix III and Appendix IV be monitored until detection monitoring resumes. Notification that an Assessment Monitoring Program had been established occurred in February, 2018. Groundwater protection standards were established for the detected Appendix IV parameters in July, 2018.

Assessment monitoring, which includes both Appendix III and IV List parameters, continued throughout 2019 for all wells in the monitor well network. The monitoring data is provided in Table 1. It must be noted that compliance with the groundwater protection standards established under §257.95(h) was achieved as no Appendix IV parameter exceeded a groundwater protection standard during the August 1, 2019 semi-annual sampling event. Therefore, assessment monitoring will continue pursuant to §257.95(f).

3.1.2 Assessment Monitoring Investigation

Subsequent to verification of the SSI of arsenic in well RW-3, an alternate source demonstration evaluation was conducted pursuant to §257.95(g)(3)(ii), from September to October 2018. The evaluation included advancement of three borings in the immediate vicinity of RW-3. Soil samples were obtained at multiple depths within the borings and analyzed for four indicator parameters. Additionally, discreet groundwater samples were collected from each boring at a depth consistent with the screened interval of RW-3. The soils and groundwater analyses were conducted to evaluate whether the arsenic present in RW-3 was naturally occurring in the geologic deposits, as is typical in unconsolidated deposits within Illinois. Additionally, trace CCR material had been detected in at least one subsurface boring on the hydraulically downgradient periphery of the permitted CCR landfill, which is in close proximity to RW-3. It was suspected that the trace CCR material may affect the quality of groundwater at RW-3. The evaluation indicated arsenic in the vicinity of RW-3 was not the result of naturally occurring minerals within the local geologic deposits, or the result of CCR material contained within the peripheral berm. Therefore, pursuant to §257.95(g)(1), an investigation to characterize the nature and extent of arsenic concentrations exceeding the background concentration at RW-3 was devised.

The investigation was implemented in two phases. The first phase (May 2019) included advancement of five direct-push borings (GP-4, GP-5, GP-6, GP-7 and GP-8) extending into the uppermost aquifer. One-inch diameter temporary wells were installed in each of the boreholes except GP-5, allowing the collection of discreet groundwater samples within the uppermost aquifer hydraulically downgradient to the impoundment. Due to the shallow occurrence of the bedrock at GP-5, the borehole was dry; no groundwater sample was available. The temporary wells were abandoned upon completion of the sampling. Due to the nature of the drilling, the samples collected were turbid, which affected the results of total metals; i.e. causes the concentrations to be artificially high due to particulate matter (silt and clay from the geologic deposits) in the sample. This is reflected in the results provided in Table 2 where several parameters exhibited exceedances of background concentrations. The boring locations are shown in Figure 3.

The second phase (July 2019) of the investigation included installation of five new wells; three wells at new locations (GP-1, GP-2 and GP-3) and two at locations sampled during the first phase (GP-6 and GP-7). The wells were advanced using 8.25-inch hollow stem augers and constructed with two-inch diameter pre-packed screens and riser pipe. The well construction significantly decreased the turbidity of the sample, allowing for a more representative sample. This is highlighted by the results comparison between samples collected from the May (one-inch well) and July (two-inch well with pre-packed screens) sampling events at GP-6 and GP-7. It was determined that arsenic was not detected at six of the seven temporary wells (GP-1, GP-3, GP-4, GP-6, GP-7 and GP-8). The concentration at the seventh temporary well (GP-2) was below the background concentration.

The presence of total arsenic in well RW-3 is low with fluctuation around the background concentration. Total arsenic at RW-3 exhibited a decreasing trend over the last three consecutive sampling events and was not detected during the most recent semi-annual sampling event (August 1, 2019). Total arsenic has been only detected in one other well (upgradient well AP-4 during the November 2017 sampling event) since implementation of the monitoring system.

With the lack of an exceedance of a groundwater protection standard, §257.95(f) requires only that the owner or operator must continue assessment monitoring. Further activities, such as characterization of the nature and extent of any applicable parameter, assessment of corrective measures, selection of a remedy, or corrective action are not necessary unless an exceedance of a groundwater protection standard is confirmed.

3.2 Assessment of Corrective Measures

Subsequent to the assessment monitoring investigation, CWLP began assessment of potential corrective action measures, including contaminant transport modeling simulating differing cover designs. Model results show typical final cover designs will reduce surface water infiltration into the ash resulting in reduction of the liquid head levels within the ash, thereby reducing solute movement beneath the impoundments. Computer simulations show the concentrations of constituents (Appendix IV) downgradient to the impoundments respond positively to multiple cover designs.

As discussed above, the facility is currently in assessment monitoring pursuant to §257.95(f). Assessment of corrective measures is not necessary at this time.

3.3 Problems Encountered

All activities which occurred in 2019 are discussed in Section 3.1 and 3.2 above. No problems were encountered.

3.4 Key Activities for Upcoming Year (2020)

Currently there are no groundwater protection standard exceedances requiring assessments or continuation of the assessment of corrective measures process. CWLP will continue with assessment monitoring pursuant to §257.95 at all impoundment wells in 2020.

4. 40 CFR 257.90(E)(1) – (5)

Additional requirements for the Annual Groundwater Monitoring and Corrective Action Report are detailed in 40 CFR 257.90(e)(1)-(5). Each of the requirements is reproduced below along with the response.

- (1) A map, aerial image, or diagram showing the CCR unit and all background (or upgradient) and downgradient monitoring wells, to include the well identification numbers that are part of the groundwater monitoring program for the CCR unit.

A map of the key features required above is provided as Figure 2 to this annual report.

- (2) Identification of any monitoring wells that were installed or decommissioned during the preceding year, along with a narrative description of why those actions were taken.

No wells were installed or decommissioned from the groundwater monitoring system in 2019.

- (3) All data collected as part of the detection or assessment monitoring programs in 2019.

Detection monitoring and assessment monitoring data collected for the period January 1, 2019 through December 31, 2019 is provided in Table 1. The table includes the sample dates and identifies the Appendix III and Appendix IV parameters. Data from the monitoring assessment investigation are provided in Table 2.

- (4) Discussion of any transition between monitoring programs including the dates of the transition and the identification of the constituent(s) that necessitated the initiation of assessment monitoring.

In accordance with §257.95, an Assessment Monitoring Program was implemented in February 2018 in response to the statistically significant increase (SSI) over background levels for one or more parameters listed in 40 CFR Part 257, Appendix III. Assessment monitoring was conducted for wells contained in the groundwater monitoring system in 2019.

- (5) Other information required to be included in the annual report as specified in §§257.90 through 257.98.

- a. Alternative monitoring frequency certification in accordance with §§257.94(d)(3) and 257.95(c)(3).

No alternative monitoring frequency has been implemented at this time. Therefore; no certification is required.

- b. Any alternate source demonstration completed in response to any statistically significant increases completed during the previous year in accordance with §257.94(e)(2) and §257.95(g)(3)(ii).

No alternate source demonstrations were conducted in 2019.

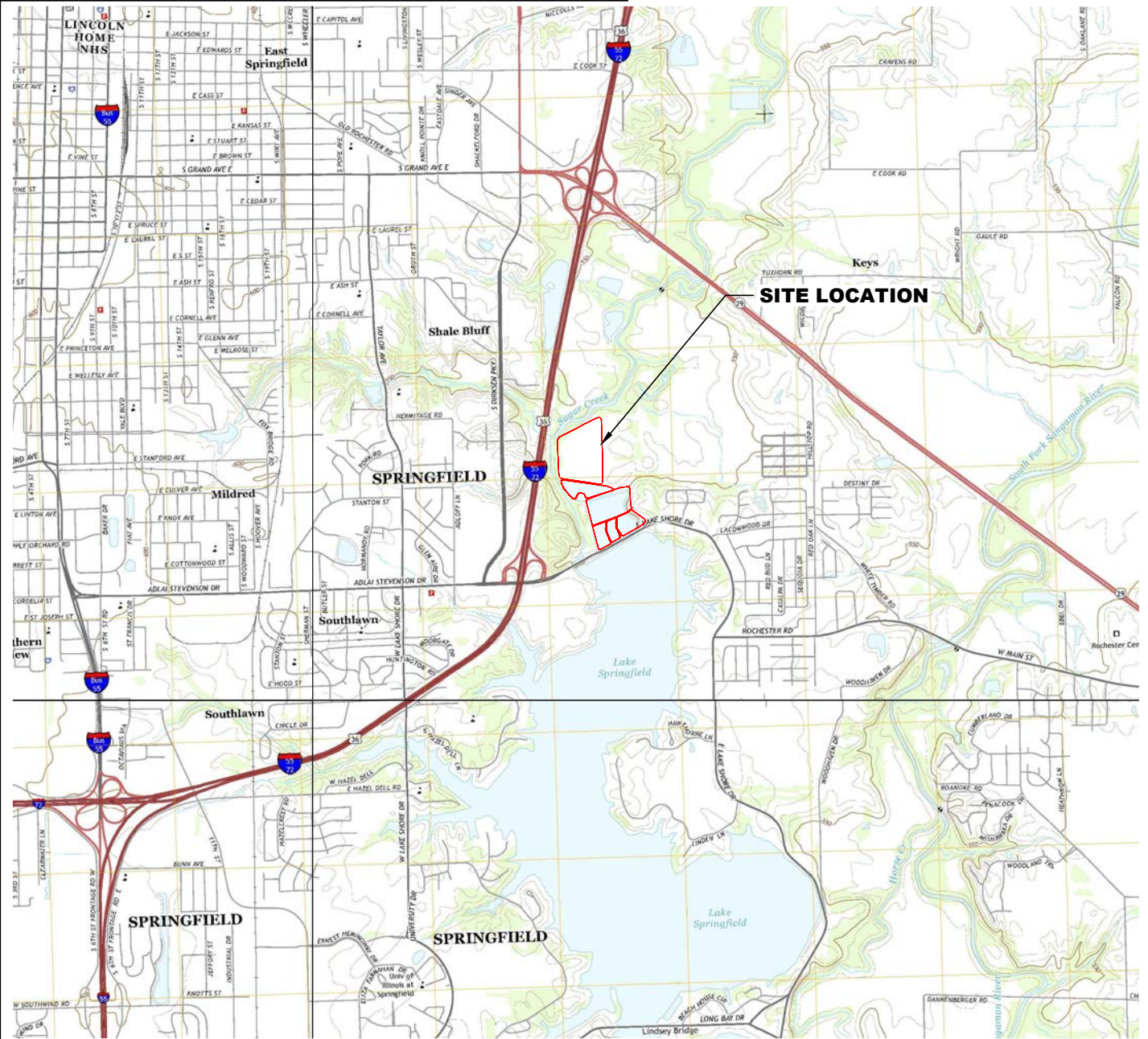
- c. Assessment of corrective measures completed during the previous year in accordance with §257.96(a).

As discussed above, the facility is currently in assessment monitoring pursuant to §257.95(f). Assessment of corrective measures is not necessary at this time. However, CWLP did assess potential corrective measures, including contaminant transport modeling simulating differing cover designs. Model results show typical final cover designs will reduce surface water infiltration into the ash resulting in reduction of the liquid head levels within the ash, thereby reducing solute movement beneath the impoundments. Computer simulations show the concentrations of constituents (Appendix IV) downgradient to the impoundments respond positively to multiple cover designs.

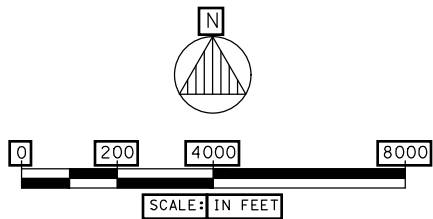
5. CONCLUSION

This annual groundwater monitoring and corrective action report has been provided in accordance with §257.90(e). The annual report for monitoring year 2020 will be provided by January 31, 2021.

FIGURES



NOTE:
BACKGROUND IMAGE COURTESY OF
UNITED STATES GEOLOGICAL SURVEY.



ANDREWS ENGINEERING, INC.
 3300 GINGER CREEK DRIVE
 SPRINGFIELD, ILLINOIS 62711-7233
 PH (217) 787-2334 FAX (217) 787-9495
 PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MD
 PROFESSIONAL DESIGN ENGINEERING AND LAND SURVEYING FIRM #184-001541

APPROVED BY: MTH DESIGNED BY: MTH DRAWN BY: RMC

SITE LOCATION

PLANS PREPARED FOR

CITY, WATER, LIGHT & POWER

SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

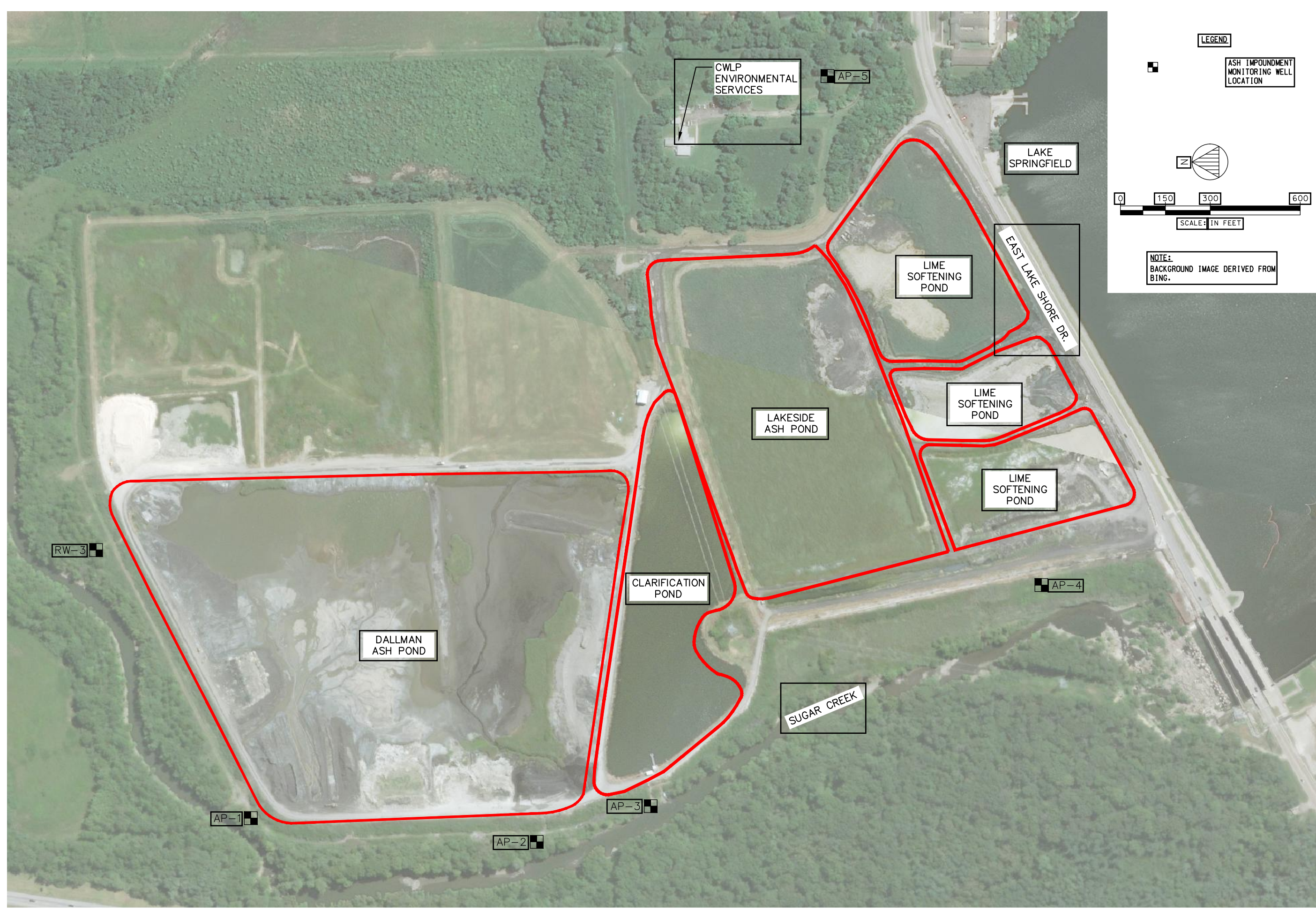
DATE: JANUARY 2020

PROJECT ID: 170306/0001

SHEET NUMBER:

FIGURE 1

\\aseit\jobs\5\Springfield_CWLP\CWLP.dwg\2018\Existing_Groundwater_Monitoring_Network.dwg Tab: FIGURE 3 Last Saved: January 17, 2020, by William Uliewicz Plotted: Friday, January 17, 2020, 1:41:51 PM



LEGEND

ASH IMPOUNDMENT MONITORING WELL LOCATION

SCALE: IN FEET

NOTE: BACKGROUND IMAGE DERIVED FROM BING.

NO.	DATE	REVISIONS DESCRIPTION	BY

ANDREWS ENGINEERING, INC.
 3300 GINGER CREEK DRIVE
 SPRINGFIELD, ILLINOIS 62711-7233
 PH (217) 787-2334 FAX (217) 787-9495
 PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, OR
 PROFESSIONAL DESIGN ENGINEERING AND LAND SURVEYING FIRM # 184-001541
 APPROVED BY: MTH DESIGNED BY: MTH DRAWN BY: BMC

GROUNDWATER MONITORING SYSTEM

PLANS PREPARED FOR

CITY, WATER, LIGHT & POWER

SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

DATE: JANUARY 2018

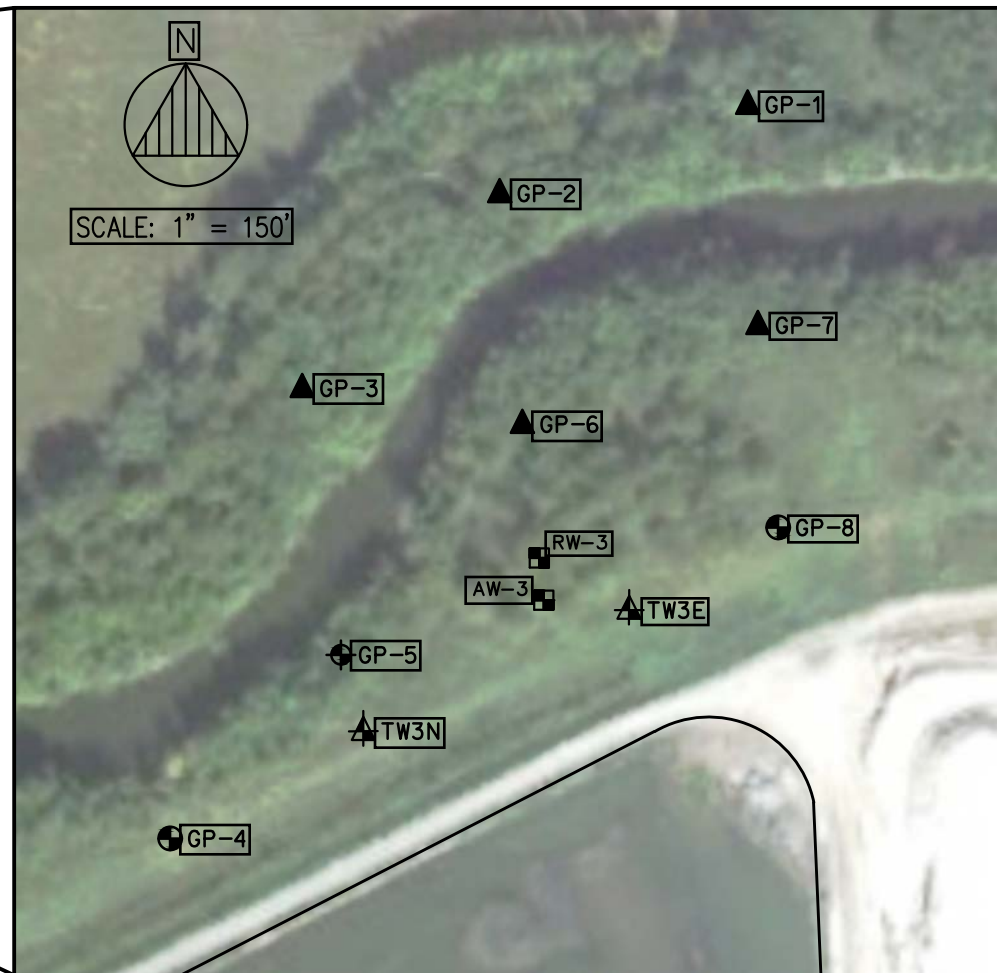
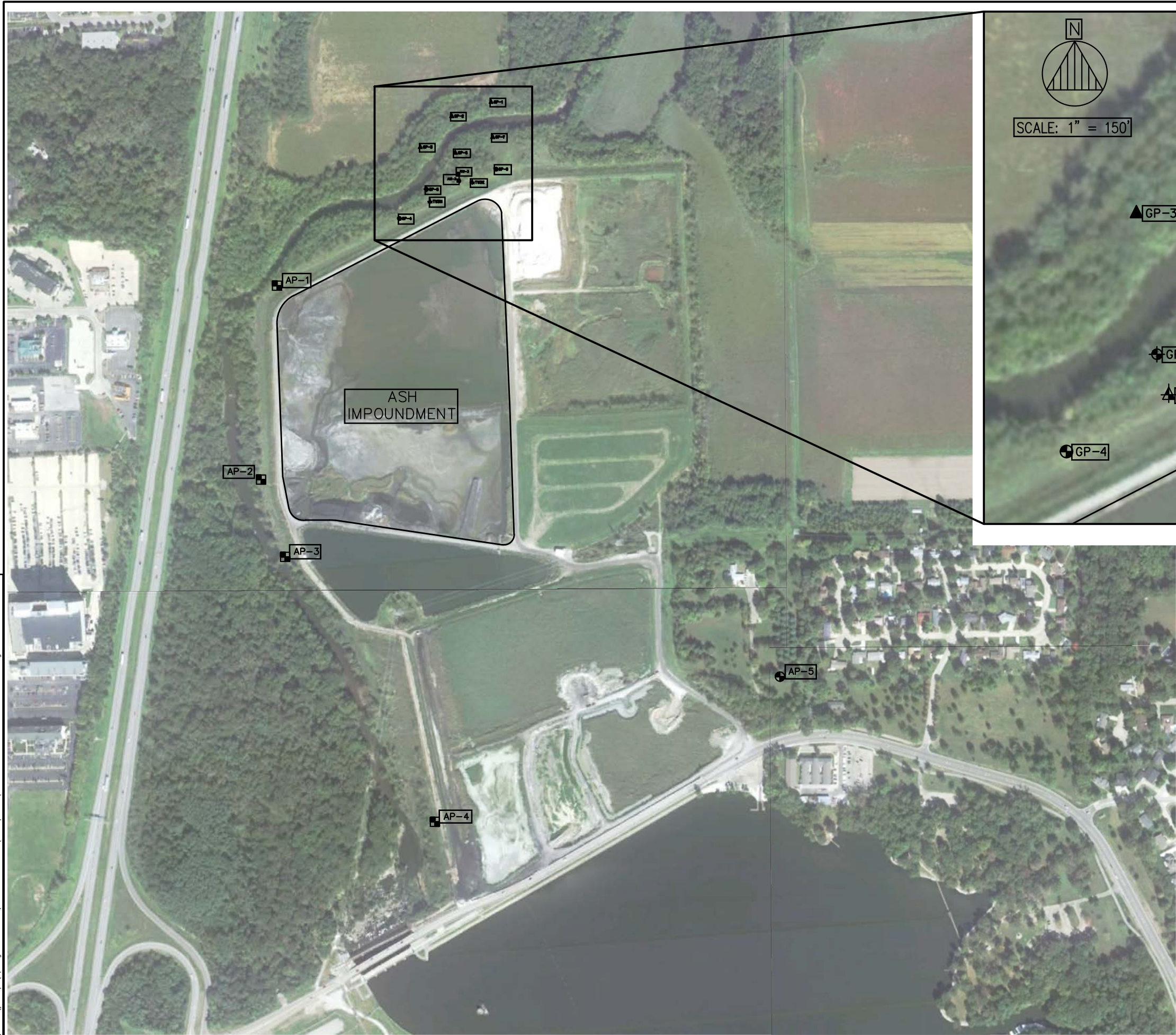
PROJECT ID: 170306/0001

SHEET NUMBER:

FIGURE 2

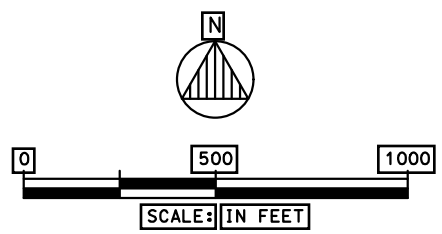
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Tab: Layout1 Last Saved: January 17, 2020, by William Ulewicz Plotted: Friday, January 17, 2020 1:37:17 PM
 \\Aeeit\jobs\S\Springfield\CWLP\Ash Pond\DWG\2020\ASSESSMENT MONITORING PLAN.dwg



- LEGEND:**
- EXISTING MONITORING WELL LOCATION
 - ⊕ GEOPROBE BORING LOCATION
 - ▲ TEMPORARY WELL LOCATION (2018)
 - ⊕ TEMPORARY WELL LOCATION (MAY 2019)
 - ▲ TEMPORARY WELL LOCATION (JULY 2019)

- NOTES**
1. BORINGS GP-6 AND GP-7 CONTAINED TEMPORARY WELLS FROM BOTH THE MAY AND JULY 2019 INVESTIGATION.
 2. AW-3 WAS REPLACED BY RW-3.



 ANDREWS ENGINEERING 3300 GINGER CREEK DRIVE SPRINGFIELD, ILLINOIS 62711-7233 PH (217) 787-2334 WWW.ANDREWS-ENG.COM PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MD		NO.	DATE	REVISION DESCRIPTION	BY
ASSESSMENT MONITORING INVESTIGATION					
PREPARED FOR					
CITY WATER, LIGHT, AND POWER					
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS					
DATE:	JANUARY 2020				
PROJECT ID:	170306/0001				
SHEET NUMBER:					
FIGURE					
3					

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TABLES

Table 1
City Water, Light and Power
Power Plant Ash Impoundment
2019 Detection and Assessment Monitoring Results

Well	Parameter	Units	MCL EPA 40 CFR 141	Background AP-4 & AP-5	2/13/2019	8/1/2019
Appendix III						
AP-1	Boron, total	mg/l	na	0.787	5.03	21
AP-2	Boron, total	mg/l	na	0.787	4.21	5.62
AP-3	Boron, total	mg/l	na	0.787	20.7	18.7
AP-4	Boron, total	mg/l	na	0.787	0.11	0.0677
AP-5	Boron, total	mg/l	na	0.787	0.0275	0.116
RW-3	Boron, total	mg/l	na	0.787	0.191	1.6
AP-1	Calcium, total	mg/l	na	176.63	98.1	243
AP-2	Calcium, total	mg/l	na	176.63	322	335
AP-3	Calcium, total	mg/l	na	176.63	180	166
AP-4	Calcium, total	mg/l	na	176.63	146	97.2
AP-5	Calcium, total	mg/l	na	176.63	95.1	132
RW-3	Calcium, total	mg/l	na	176.63	84.1	175
AP-1	Chloride, total	mg/l	na	24.2	40.9	52.1
AP-2	Chloride, total	mg/l	na	24.2	39.2	37.2
AP-3	Chloride, total	mg/l	na	24.2	36	36.3
AP-4	Chloride, total	mg/l	na	24.2	12.8	1.9
AP-5	Chloride, total	mg/l	na	24.2	4.45	< 12.5
RW-3	Chloride, total	mg/l	na	24.2	28.1	25.5
AP-1	Fluoride, total	mg/l	4	0.62	< 0.25	0.26
AP-2	Fluoride, total	mg/l	4	0.62	< 0.25	0.28
AP-3	Fluoride, total	mg/l	4	0.62	< 0.25	0.28
AP-4	Fluoride, total	mg/l	4	0.62	< 0.25	0.43
AP-5	Fluoride, total	mg/l	4	0.62	0.3	< 0.25
RW-3	Fluoride, total	mg/l	4	0.62	0.54	< 0.25
AP-1	pH (field)	units	na	6.76-7.63	7.07	6.68
AP-2	pH (field)	units	na	6.76-7.63	6.59	6.57
AP-3	pH (field)	units	na	6.76-7.63	6.76	6.77
AP-4	pH (field)	units	na	6.76-7.63	7.01	7.07
AP-5	pH (field)	units	na	6.76-7.63	7.42	7.32
RW-3	pH (field)	units	na	6.76-7.63	7.52	7.34
AP-1	Sulfate, total	mg/l	na	84.5	179	673
AP-2	Sulfate, total	mg/l	na	84.5	725	816
AP-3	Sulfate, total	mg/l	na	84.5	402	354
AP-4	Sulfate, total	mg/l	na	84.5	< 1.5	44.7
AP-5	Sulfate, total	mg/l	na	84.5	60.8	< 1.5
RW-3	Sulfate, total	mg/l	na	84.5	8.45	215
AP-1	Total Dissolved Solids	mg/l	na	597.94	550	1510
AP-2	Total Dissolved Solids	mg/l	na	597.94	1720	1860
AP-3	Total Dissolved Solids	mg/l	na	597.94	1090	913
AP-4	Total Dissolved Solids	mg/l	na	597.94	536	416
AP-5	Total Dissolved Solids	mg/l	na	597.94	420	518
RW-3	Total Dissolved Solids	mg/l	na	597.94	412	871

**City Water, Light and Power
Power Plant Ash Impoundment
2019 Detection and Assessment Monitoring Results**

Well	Parameter	Units	MCL EPA 40 CFR 141	Background AP-4 & AP-5	2/13/2019	8/1/2019
Appendix IV						
AP-1	Antimony, total	mg/l	0.006	0.016	< 0.016	< 0.016
AP-2	Antimony, total	mg/l	0.006	0.016	< 0.016	< 0.016
AP-3	Antimony, total	mg/l	0.006	0.016	< 0.016	< 0.016
AP-4	Antimony, total	mg/l	0.006	0.016	< 0.016	< 0.016
AP-5	Antimony, total	mg/l	0.006	0.016	< 0.016	< 0.016
RW-3	Antimony, total	mg/l	0.006	0.016	< 0.016	< 0.016
AP-1	Arsenic, total	mg/l	0.01	0.0724	< 0.025	< 0.025
AP-2	Arsenic, total	mg/l	0.01	0.0724	< 0.025	< 0.025
AP-3	Arsenic, total	mg/l	0.01	0.0724	< 0.025	< 0.025
AP-4	Arsenic, total	mg/l	0.01	0.0724	< 0.025	< 0.025
AP-5	Arsenic, total	mg/l	0.01	0.0724	< 0.025	< 0.025
RW-3	Arsenic, total	mg/l	0.01	0.0724	0.124	< 0.025
AP-1	Barium, total	mg/l	2	5.24	0.188	0.579
AP-2	Barium, total	mg/l	2	5.24	0.155	0.203
AP-3	Barium, total	mg/l	2	5.24	0.123	0.129
AP-4	Barium, total	mg/l	2	5.24	0.416	0.0842
AP-5	Barium, total	mg/l	2	5.24	0.06	0.428
RW-3	Barium, total	mg/l	2	5.24	0.221	0.3
AP-1	Beryllium, total	mg/l	0.004	0.0164	< 0.0025	< 0.016
AP-2	Beryllium, total	mg/l	0.004	0.0164	< 0.0025	< 0.016
AP-3	Beryllium, total	mg/l	0.004	0.0164	< 0.0025	< 0.016
AP-4	Beryllium, total	mg/l	0.004	0.0164	< 0.0025	< 0.016
AP-5	Beryllium, total	mg/l	0.004	0.0164	< 0.0025	< 0.016
RW-3	Beryllium, total	mg/l	0.004	0.0164	< 0.0025	< 0.016
AP-1	Cadmium, total	mg/l	0.005	0.0128	< 0.0025	< 0.012
AP-2	Cadmium, total	mg/l	0.005	0.0128	< 0.0025	< 0.012
AP-3	Cadmium, total	mg/l	0.005	0.0128	< 0.0025	< 0.012
AP-4	Cadmium, total	mg/l	0.005	0.0128	< 0.0025	< 0.012
AP-5	Cadmium, total	mg/l	0.005	0.0128	< 0.0025	< 0.012
RW-3	Cadmium, total	mg/l	0.005	0.0128	< 0.0025	< 0.012
AP-1	Chromium, total	mg/l	0.1	0.811	< 0.025	< 0.025
AP-2	Chromium, total	mg/l	0.1	0.811	< 0.025	< 0.025
AP-3	Chromium, total	mg/l	0.1	0.811	< 0.025	< 0.025
AP-4	Chromium, total	mg/l	0.1	0.811	< 0.025	< 0.025
AP-5	Chromium, total	mg/l	0.1	0.811	< 0.025	< 0.025
RW-3	Chromium, total	mg/l	0.1	0.811	< 0.025	< 0.025
AP-1	Cobalt, total	mg/l	na	0.297	< 0.025	< 0.025
AP-2	Cobalt, total	mg/l	na	0.297	< 0.025	< 0.025
AP-3	Cobalt, total	mg/l	na	0.297	< 0.025	< 0.025
AP-4	Cobalt, total	mg/l	na	0.297	< 0.025	< 0.025
AP-5	Cobalt, total	mg/l	na	0.297	< 0.025	< 0.025
RW-3	Cobalt, total	mg/l	na	0.297	< 0.025	< 0.025
AP-1	Lead, total	mg/l	na	0.638	< 0.025	< 0.025
AP-2	Lead, total	mg/l	na	0.638	< 0.025	< 0.025
AP-3	Lead, total	mg/l	na	0.638	< 0.025	< 0.025
AP-4	Lead, total	mg/l	na	0.638	< 0.025	< 0.025
AP-5	Lead, total	mg/l	na	0.638	< 0.025	< 0.025
RW-3	Lead, total	mg/l	na	0.638	< 0.025	< 0.025
AP-1	Lithium	mg/l	na	0.05	< 0.05	< 0.05
AP-2	Lithium	mg/l	na	0.05	< 0.05	< 0.05
AP-3	Lithium	mg/l	na	0.05	< 0.05	< 0.05
AP-4	Lithium	mg/l	na	0.05	< 0.05	< 0.05
AP-5	Lithium	mg/l	na	0.05	< 0.05	< 0.05
RW-3	Lithium	mg/l	na	0.05	< 0.05	< 0.05

**City Water, Light and Power
Power Plant Ash Impoundment
2019 Detection and Assessment Monitoring Results**

Well	Parameter	Units	MCL EPA 40 CFR 141	Background AP-4 & AP-5	2/13/2019	8/1/2019
AP-1	Mercury, total	mg/l	0.002	0.0008	< 0.0005	< 0.0005
AP-2	Mercury, total	mg/l	0.002	0.0008	< 0.0005	< 0.0005
AP-3	Mercury, total	mg/l	0.002	0.0008	< 0.0005	< 0.0005
AP-4	Mercury, total	mg/l	0.002	0.0008	< 0.0005	< 0.0005
AP-5	Mercury, total	mg/l	0.002	0.0008	< 0.0005	< 0.0005
RW-3	Mercury, total	mg/l	0.002	0.0008	< 0.0005	< 0.0005
AP-1	Molybdenum	mg/l	na	0.025	< 0.025	< 0.025
AP-2	Molybdenum	mg/l	na	0.025	< 0.025	< 0.025
AP-3	Molybdenum	mg/l	na	0.025	< 0.025	< 0.025
AP-4	Molybdenum	mg/l	na	0.025	< 0.025	< 0.025
AP-5	Molybdenum	mg/l	na	0.025	< 0.025	< 0.025
RW-3	Molybdenum	mg/l	na	0.025	< 0.025	< 0.025
AP-1	Radium-226	pCi/l	Note 2	7.1	0.34	0.3
AP-2	Radium-226	pCi/l	Note 2	7.1	0.91	0.374
AP-3	Radium-226	pCi/l	Note 2	7.1	0.68	0.769
AP-4	Radium-226	pCi/l	Note 2	7.1	0.77	0.39
AP-5	Radium-226	pCi/l	Note 2	7.1	0.29	0.892
RW-3	Radium-226	pCi/l	Note 2	7.1	0.6	0.487
AP-1	Radium-228	pCi/l	Note 2	5.1	0.59	1.55
AP-2	Radium-228	pCi/l	Note 2	5.1	1.7	0.76
AP-3	Radium-228	pCi/l	Note 2	5.1	1.8	0.741
AP-4	Radium-228	pCi/l	Note 2	5.1	1.8	0.2
AP-5	Radium-228	pCi/l	Note 2	5.1	0.54	0.358
RW-3	Radium-228	pCi/l	Note 2	5.1	0.5	0.307
AP-1	Radium-226 + Radium-228	pCi/l	5	Note 2	0.93	1.85
AP-2	Radium-226 + Radium-228	pCi/l	5	Note 2	2.61	1.134
AP-3	Radium-226 + Radium-228	pCi/l	5	Note 2	2.48	1.51
AP-4	Radium-226 + Radium-228	pCi/l	5	Note 2	2.57	0.59
AP-5	Radium-226 + Radium-228	pCi/l	5	Note 2	0.83	1.25
RW-3	Radium-226 + Radium-228	pCi/l	5	Note 2	1.1	0.794
AP-1	Selenium, total	mg/l	0.05	0.0079	< 0.025	< 0.025
AP-2	Selenium, total	mg/l	0.05	0.0079	< 0.025	< 0.025
AP-3	Selenium, total	mg/l	0.05	0.0079	< 0.025	< 0.025
AP-4	Selenium, total	mg/l	0.05	0.0079	< 0.025	< 0.025
AP-5	Selenium, total	mg/l	0.05	0.0079	< 0.025	< 0.025
RW-3	Selenium, total	mg/l	0.05	0.0079	< 0.025	< 0.025
AP-1	Thallium, total	mg/l	0.002	0.00556	< 0.005	< 0.005
AP-2	Thallium, total	mg/l	0.002	0.00556	< 0.005	< 0.005
AP-3	Thallium, total	mg/l	0.002	0.00556	< 0.005	< 0.005
AP-4	Thallium, total	mg/l	0.002	0.00556	< 0.005	< 0.005
AP-5	Thallium, total	mg/l	0.002	0.00556	< 0.005	< 0.005
RW-3	Thallium, total	mg/l	0.002	0.00556	< 0.005	< 0.005

Notes:

1. A yellow shaded value indicates and exceedance of the higher of the MCL or the Background. The comparison value that was used is highlighted grey.
2. The 40 CFR 257 list requires Radium-226 and Radium-228 combined. The established MCL is for the combined parameters. However, these parameters require two separate analysis and have been reported separately by the analytical laboratory. The sum of the values has been provided and compared to the MCL. Background values have been calculated for the individual parameters.

TABLE 2
City Water, Light and Power
Lakeside and Dalman Ash Impoundments
Assessment Investigation Results

Parameter	Units	MCL EPA 40 CFR 141	Background AP-4 & AP-5	GP-8 5/16/2019	GP-7 5/16/2019	GP-6 5/17/2019	GP-4 5/17/2019	GP-1 7/11/2019	GP-2 7/11/2019	GP-3 7/11/2019	GP-7 7/11/2019	GP-6 7/26/2019
Appendix III												
Boron, total	mg/l	na	0.787	0.359	0.949	0.321	1.17	0.34	0.531	0.0686	0.169	0.337
Calcium, total	mg/l	na	176.63	534	1560	275	174	129	63.8	72.6	111	66.1
Chloride, total	mg/l	na	24.2	18.7	30	25.6	24.2	15.2	74.8	2.91	16.2	46.7
Fluoride, total	mg/l	4	0.62	< 0.25	< 0.25	0.32	< 0.25	< 0.2	0.657	< 0.2	< 0.2	0.59
pH (field)	units	na	6.76-7.63	6.49	7.01	6.76	6.84	7.12	7.68	7.43	6.92	6.95
Sulfate, total	mg/l	na	84.5	223	585	57.7	298	12.4	< 1	59	4.56	7.88
Total Dissolved Solids	mg/l	na	597.94	1760	1760	564	910	498	516	223	464	458
Appendix IV												
Antimony, total	mg/l	0.006	0.016	< 0.4	< 0.4	< 0.025	< 0.025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Arsenic, total	mg/l	0.01	0.0724	< 0.4	1.82	0.13	< 0.025	< 0.0025	0.0365	< 0.0025	< 0.0025	< 0.0025
Barium, total	mg/l	2	5.24	1.72	5.75	1.6	0.217	0.25	0.211	0.0605	0.221	0.18
Beryllium, total	mg/l	0.004	0.0164	< 0.04	0.0644	0.0146	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Cadmium, total	mg/l	0.005	0.0128	< 0.04	0.04	0.0053	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chromium, total	mg/l	0.1	0.811	< 0.4	2.42	0.412	< 0.025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Cobalt, total	mg/l	na	0.297	< 0.4	1.41	0.178	< 0.025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Lead, total	mg/l	na	0.638	< 0.4	1.71	0.2	< 0.025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Lithium	mg/l	na	0.05	0.155	1.44	0.271	< 0.05	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Mercury, total	mg/l	0.002	0.0008	0.00062	< 0.0005	< 0.0005	< 0.0005	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004
Molybdenum	mg/l	na	0.025	< 0.4	< 0.4	< 0.025	< 0.025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025
Selenium, total	mg/l	0.05	0.0079	< 0.4	< 0.4	0.0541	< 0.025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Thallium, total	mg/l	0.002	0.00556	< 0.4	< 0.4	< 0.025	< 0.025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
				dilution of 50	dilution of 50	dilution of 5	dilution of 5					

Notes:

1. A yellow shaded value indicates and exceedance of the higher of the MCL or the Background (Groundwater Protection Standard). The comparison value that was used is highlighted grey.
2. A bold and italicized value indicates that the reporting limits was higher than the comparison value.
3. For the Appendix IV parameters, the higher of the MCL or Background Concentration is the Groundwater Protection Standard.
4. 1" dia. Temporary wells (May 2019) and 2" dia. Temporary wells (July 2019) were installed at GP-6 and GP-7 locations.

January 25, 2022

Eric Staley
City Water, Light & Power
3100 Stevenson Drive
2nd Floor Maintenance Building
Springfield, IL 62712
TEL: (217) 757-8610
FAX: (217) 757-8615



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

RE: Ash Pond Monitoring Wells

WorkOrder: 21110022

Dear Eric Staley:

TEKLAB, INC received 11 samples on 11/11/2021 7:45:00 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,



Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com



Report Contents

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

Client: City Water, Light & Power

Work Order: 21110022

Client Project: Ash Pond Monitoring Wells

Report Date: 25-Jan-22

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	20
Chain of Custody	Appended

Client: City Water, Light & Power

Work Order: 21110022

Client Project: Ash Pond Monitoring Wells

Report Date: 25-Jan-22

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: City Water, Light & Power

Work Order: 21110022

Client Project: Ash Pond Monitoring Wells

Report Date: 25-Jan-22

Qualifiers

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

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells

Work Order: 21110022
Report Date: 25-Jan-22

Cooler Receipt Temp: 2.2 °C

An employee of Teklab, Inc. collected the sample(s).

Radium-226 and Radium-228 analysis was performed by Pace Analytical Services, LLC. See attached report for results.

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

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Springfield, IL 62711-9415
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Accreditations

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

Client: City Water, Light & Power

Work Order: 21110022

Client Project: Ash Pond Monitoring Wells

Report Date: 25-Jan-22

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2022	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2022	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2022	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2022	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2022	Collinsville
Arkansas	ADEQ	88-0966		3/14/2022	Collinsville
Illinois	IDPH	17584		5/31/2023	Collinsville
Kentucky	UST	0073		1/31/2022	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21110022-001
 Matrix: GROUNDWATER

Work Order: 21110022
 Report Date: 25-Jan-22

Client Sample ID: RW-3

Collection Date: 11/10/2021 10:10

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		495.49	ft	1	11/10/2021 10:10	R303134
Depth to water	*	-5.00		5.98	ft	1	11/10/2021 10:10	R303134
Depth to water from measuring point	*	0		8.68	ft	1	11/10/2021 10:10	R303134
Elevation of groundwater surface	*	0		530.82	ft	1	11/10/2021 10:10	R303134
Measuring Point Elevation	*	0		539.50	ft	1	11/10/2021 10:10	R303134
Measuring Point Height Above Land Surface	*	0		2.70	ft	1	11/10/2021 10:10	R303134
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		6.2	NTU	1	11/10/2021 10:10	R303134
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		57.0	°F	1	11/10/2021 10:10	R303134
SW-846 9040B								
pH, Field	*	1.00		6.94		1	11/10/2021 10:10	R303134
SW-846 9050A								
Spec. Conductance, Field	*	1.00		795	µmhos/cm @25C	1	11/10/2021 10:10	R303134
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		410	mg/L	1	11/12/2021 15:01	R302666
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		< 10	mg/L	1	11/16/2021 2:02	R302737
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.50	mg/L	1	11/11/2021 10:46	R302521
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		30	mg/L	1	11/16/2021 2:02	R302744
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		0.158	mg/L	1	11/12/2021 20:40	184917
Barium	NELAP	0.0025		0.168	mg/L	1	11/12/2021 20:40	184917
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	11/12/2021 20:40	184917
Boron	NELAP	0.0200		0.181	mg/L	1	11/16/2021 13:10	184917
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	11/12/2021 20:40	184917
Calcium	NELAP	0.100		70.4	mg/L	1	11/12/2021 20:40	184917
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	11/12/2021 20:40	184917
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	11/12/2021 20:40	184917
Lead	NELAP	0.0150		< 0.0150	mg/L	1	11/12/2021 20:40	184917
Lithium	NELAP	0.0050		0.0077	mg/L	1	11/12/2021 20:40	184917
Molybdenum	NELAP	0.0100		0.0128	mg/L	1	11/12/2021 20:40	184917
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	11/18/2021 1:27	184917
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	11/18/2021 1:27	184917
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	11/17/2021 2:36	184917
<i>CCV recovered outside the upper control limits for Se. Sample results are below the reporting limit. Data is reportable per the TNI standard.</i>								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	11/14/2021 15:41	184918
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	01/18/2022 0:00	R306320
Radium-228	*	0		See attached	pci/L	1	01/18/2022 0:00	R306320



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21110022-002
 Matrix: GROUNDWATER

Work Order: 21110022
 Report Date: 25-Jan-22
 Client Sample ID: AP-1
 Collection Date: 11/10/2021 15:31

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		504.29	ft	1	11/09/2021 15:31	R303134
Depth to water	*	-5.00		6.72	ft	1	11/09/2021 15:31	R303134
Depth to water from measuring point	*	0		8.99	ft	1	11/09/2021 15:31	R303134
Elevation of groundwater surface	*	0		526.38	ft	1	11/09/2021 15:31	R303134
Measuring Point Elevation	*	0		535.37	ft	1	11/09/2021 15:31	R303134
Measuring Point Height Above Land Surface	*	0		2.27	ft	1	11/09/2021 15:31	R303134
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		< 1.0	NTU	1	11/09/2021 15:31	R303134
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		57.7	°F	1	11/09/2021 15:31	R303134
SW-846 9040B								
pH, Field	*	1.00		6.49		1	11/09/2021 15:31	R303134
SW-846 9050A								
Spec. Conductance, Field	*	1.00		1800	µmhos/cm @25C	1	11/09/2021 15:31	R303134
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		1480	mg/L	1	11/12/2021 15:01	R302666
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		724	mg/L	20	11/16/2021 2:20	R302737
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.21	mg/L	1	11/11/2021 10:47	R302521
SW-846 9251 (TOTAL)								
Chloride	NELAP	20		51	mg/L	20	11/16/2021 2:21	R302744
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	11/12/2021 20:44	184917
Barium	NELAP	0.0025		0.293	mg/L	1	11/12/2021 20:44	184917
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	11/12/2021 20:44	184917
Boron	NELAP	0.200		22.1	mg/L	10	11/16/2021 14:35	184917
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	11/12/2021 20:44	184917
Calcium	NELAP	0.100		239	mg/L	1	11/12/2021 20:44	184917
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	11/12/2021 20:44	184917
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	11/12/2021 20:44	184917
Lead	NELAP	0.0150		< 0.0150	mg/L	1	11/12/2021 20:44	184917
Lithium	NELAP	0.0050		0.0100	mg/L	1	11/12/2021 20:44	184917
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	11/12/2021 20:44	184917
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	11/18/2021 1:34	184917
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	11/18/2021 1:34	184917
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	11/17/2021 2:42	184917
<i>CCV recovered outside the upper control limits for Se. Sample results are below the reporting limit. Data is reportable per the TNI standard.</i>								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	11/14/2021 15:44	184918
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	01/18/2022 0:00	R306320
Radium-228	*	0		See attached	pci/L	1	01/18/2022 0:00	R306320



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21110022-003
 Matrix: GROUNDWATER

Work Order: 21110022
 Report Date: 25-Jan-22

Client Sample ID: AP-2

Collection Date: 11/09/2021 14:09

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		514.77	ft	1	11/09/2021 14:09	R303134
Depth to water	*	-5.00		4.34	ft	1	11/09/2021 14:09	R303134
Depth to water from measuring point	*	0		6.84	ft	1	11/09/2021 14:09	R303134
Elevation of groundwater surface	*	0		529.26	ft	1	11/09/2021 14:09	R303134
Measuring Point Elevation	*	0		536.10	ft	1	11/09/2021 14:09	R303134
Measuring Point Height Above Land Surface	*	0		2.50	ft	1	11/09/2021 14:09	R303134
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		< 1.0	NTU	1	11/09/2021 14:09	R303134
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		60.4	°F	1	11/09/2021 14:09	R303134
SW-846 9040B								
pH, Field	*	1.00		6.25		1	11/09/2021 14:09	R303134
SW-846 9050A								
Spec. Conductance, Field	*	1.00		1770	µmhos/cm @25C	1	11/09/2021 14:09	R303134
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		1490	mg/L	1	11/12/2021 15:02	R302666
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		742	mg/L	20	11/16/2021 2:29	R302737
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.25	mg/L	1	11/11/2021 10:49	R302521
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		34	mg/L	1	11/16/2021 2:24	R302744
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	11/12/2021 20:47	184917
Barium	NELAP	0.0025		0.0829	mg/L	1	11/12/2021 20:47	184917
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	11/12/2021 20:47	184917
Boron	NELAP	0.0200		5.02	mg/L	1	11/16/2021 15:43	184917
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	11/12/2021 20:47	184917
Calcium	NELAP	0.100		273	mg/L	1	11/12/2021 20:47	184917
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	11/12/2021 20:47	184917
Cobalt	NELAP	0.0050		0.0125	mg/L	1	11/12/2021 20:47	184917
Lead	NELAP	0.0150		< 0.0150	mg/L	1	11/12/2021 20:47	184917
Lithium	NELAP	0.0050		0.0062	mg/L	1	11/12/2021 20:47	184917
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	11/12/2021 20:47	184917
<i>Sample result(s) for B exceed 10 times the CCB. Data is reportable per the TNI Standard.</i>								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	11/18/2021 1:41	184917
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	11/18/2021 1:41	184917
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	11/17/2021 2:49	184917
<i>CCV recovered outside the upper control limits for Se. Sample results are below the reporting limit. Data is reportable per the TNI standard.</i>								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	11/14/2021 15:46	184918
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	01/18/2022 0:00	R306320



Laboratory Results

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

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells
Lab ID: 21110022-003
Matrix: GROUNDWATER

Work Order: 21110022
Report Date: 25-Jan-22
Client Sample ID: AP-2
Collection Date: 11/09/2021 14:09

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228	*	0		See attached	pci/L	1	01/18/2022 0:00	R306320



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21110022-004
 Matrix: GROUNDWATER

Work Order: 21110022
 Report Date: 25-Jan-22

Client Sample ID: AP-3

Collection Date: 11/09/2021 13:48

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		514.45	ft	1	11/09/2021 13:48	R303134
Depth to water	*	-5.00		7.39	ft	1	11/09/2021 13:48	R303134
Depth to water from measuring point	*	0		9.09	ft	1	11/09/2021 13:48	R303134
Elevation of groundwater surface	*	0		526.31	ft	1	11/09/2021 13:48	R303134
Measuring Point Elevation	*	0		535.40	ft	1	11/09/2021 13:48	R303134
Measuring Point Height Above Land Surface	*	0		1.70	ft	1	11/09/2021 13:48	R303134
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		9.7	NTU	1	11/09/2021 13:48	R303134
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		62.2	°F	1	11/09/2021 13:48	R303134
SW-846 9040B								
pH, Field	*	1.00		6.49		1	11/09/2021 13:48	R303134
SW-846 9050A								
Spec. Conductance, Field	*	1.00		1110	µmhos/cm @25C	1	11/09/2021 13:48	R303134
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		834	mg/L	1	11/12/2021 15:02	R302666
SW-846 9036 (TOTAL)								
Sulfate	NELAP	100		389	mg/L	10	11/16/2021 2:31	R302737
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.25	mg/L	1	11/11/2021 10:51	R302521
SW-846 9251 (TOTAL)								
Chloride	NELAP	10		37	mg/L	10	11/16/2021 2:32	R302744
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	11/12/2021 20:51	184917
Barium	NELAP	0.0025		0.0926	mg/L	1	11/12/2021 20:51	184917
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	11/12/2021 20:51	184917
Boron	NELAP	0.200		16.7	mg/L	10	11/16/2021 14:23	184917
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	11/12/2021 20:51	184917
Calcium	NELAP	0.100		147	mg/L	1	11/12/2021 20:51	184917
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	11/12/2021 20:51	184917
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	11/12/2021 20:51	184917
Lead	NELAP	0.0150		< 0.0150	mg/L	1	11/12/2021 20:51	184917
Lithium	NELAP	0.0050		0.0055	mg/L	1	11/12/2021 20:51	184917
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	11/12/2021 20:51	184917
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	11/18/2021 1:47	184917
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	11/18/2021 1:47	184917
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	11/17/2021 2:55	184917
<i>CCV recovered outside the upper control limits for Se. Sample results are below the reporting limit. Data is reportable per the TNI standard.</i>								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	11/14/2021 15:48	184918
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	01/18/2022 0:00	R306320
Radium-228	*	0		See attached	pci/L	1	01/18/2022 0:00	R306320



Laboratory Results

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

Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21110022-005
 Matrix: GROUNDWATER

Work Order: 21110022
 Report Date: 25-Jan-22

Client Sample ID: AP-4

Collection Date: 11/09/2021 13:10

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		498.79	ft	1	11/09/2021 13:10	R303134
Depth to water	*	-5.00		3.91	ft	1	11/09/2021 13:10	R303134
Depth to water from measuring point	*	0		9.21	ft	1	11/09/2021 13:10	R303134
Elevation of groundwater surface	*	0		549.99	ft	1	11/09/2021 13:10	R303134
Measuring Point Elevation	*	0		559.20	ft	1	11/09/2021 13:10	R303134
Measuring Point Height Above Land Surface	*	0		5.30	ft	1	11/09/2021 13:10	R303134
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		19	NTU	1	11/09/2021 13:10	R303134
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		61.2	°F	1	11/09/2021 13:10	R303134
SW-846 9040B								
pH, Field	*	1.00		6.75		1	11/09/2021 13:10	R303134
SW-846 9050A								
Spec. Conductance, Field	*	1.00		892	µmhos/cm @25C	1	11/09/2021 13:10	R303134
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		494	mg/L	1	11/12/2021 15:02	R302666
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		< 10	mg/L	1	11/16/2021 2:37	R302737
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.15	mg/L	1	11/11/2021 11:02	R302521
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		13	mg/L	1	11/16/2021 2:37	R302744
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		0.0305	mg/L	1	11/12/2021 21:10	184917
Barium	NELAP	0.0025		0.417	mg/L	1	11/12/2021 21:10	184917
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	11/12/2021 21:10	184917
Boron	NELAP	0.0200		0.0946	mg/L	1	11/16/2021 13:13	184917
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	11/12/2021 21:10	184917
Calcium	NELAP	0.100		117	mg/L	1	11/12/2021 21:10	184917
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	11/12/2021 21:10	184917
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	11/12/2021 21:10	184917
Lead	NELAP	0.0150		< 0.0150	mg/L	1	11/12/2021 21:10	184917
Lithium	NELAP	0.0050		0.0079	mg/L	1	11/12/2021 21:10	184917
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	11/12/2021 21:10	184917
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	11/18/2021 1:54	184917
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	11/18/2021 1:54	184917
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	11/17/2021 3:02	184917
<i>CCV recovered outside the upper control limits for Se. Sample results are below the reporting limit. Data is reportable per the TNI standard.</i>								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	11/14/2021 15:50	184918
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	01/18/2022 0:00	R306320
Radium-228	*	0		See attached	pci/L	1	01/18/2022 0:00	R306320



Laboratory Results

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Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21110022-006
 Matrix: GROUNDWATER

Work Order: 21110022
 Report Date: 25-Jan-22

Client Sample ID: AP-5

Collection Date: 11/10/2021 16:01

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		552.63	ft	1	11/10/2021 16:01	R303134
Depth to water	*	-5.00		11.04	ft	1	11/10/2021 16:01	R303134
Depth to water from measuring point	*	0		13.34	ft	1	11/10/2021 16:01	R303134
Elevation of groundwater surface	*	0		570.56	ft	1	11/10/2021 16:01	R303134
Measuring Point Elevation	*	0		583.90	ft	1	11/10/2021 16:01	R303134
Measuring Point Height Above Land Surface	*	0		2.30	ft	1	11/10/2021 16:01	R303134
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		< 1.0	NTU	1	11/10/2021 16:01	R303134
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		56.8	°F	1	11/10/2021 16:01	R303134
SW-846 9040B								
pH, Field	*	1.00		6.97		1	11/10/2021 16:01	R303134
SW-846 9050A								
Spec. Conductance, Field	*	1.00		780	µmhos/cm @25C	1	11/10/2021 16:01	R303134
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		468	mg/L	1	11/12/2021 15:02	R302666
SW-846 9036 (TOTAL)								
Sulfate	NELAP	20		70	mg/L	2	11/16/2021 2:45	R302737
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.30	mg/L	1	11/11/2021 11:05	R302521
SW-846 9251 (TOTAL)								
Chloride	NELAP	2		6	mg/L	2	11/16/2021 2:45	R302744
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	11/12/2021 21:13	184917
Barium	NELAP	0.0025		0.0696	mg/L	1	11/12/2021 21:13	184917
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	11/12/2021 21:13	184917
Boron	NELAP	0.0200		< 0.0200	mg/L	1	11/16/2021 13:22	184917
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	11/12/2021 21:13	184917
Calcium	NELAP	0.100		94.2	mg/L	1	11/12/2021 21:13	184917
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	11/12/2021 21:13	184917
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	11/12/2021 21:13	184917
Lead	NELAP	0.0150		< 0.0150	mg/L	1	11/12/2021 21:13	184917
Lithium	NELAP	0.0050		0.0090	mg/L	1	11/12/2021 21:13	184917
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	11/12/2021 21:13	184917
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	11/18/2021 2:40	184917
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	11/18/2021 2:40	184917
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	11/17/2021 3:09	184917
<i>CCV recovered outside the upper control limits for Se. Sample results are below the reporting limit. Data is reportable per the TNI standard.</i>								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	11/15/2021 13:22	184918
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	01/18/2022 0:00	R306320
Radium-228	*	0		See attached	pci/L	1	01/18/2022 0:00	R306320



Laboratory Results

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Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21110022-007
 Matrix: GROUNDWATER

Work Order: 21110022
 Report Date: 25-Jan-22
 Client Sample ID: AP-6
 Collection Date: 11/10/2021 10:35

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		498.20	ft	1	11/10/2021 10:35	R303134
Depth to water	*	-5.00		4.78	ft	1	11/10/2021 10:35	R303134
Depth to water from measuring point	*	0		7.20	ft	1	11/10/2021 10:35	R303134
Elevation of groundwater surface	*	0		530.62	ft	1	11/10/2021 10:35	R303134
Measuring Point Elevation	*	0		537.82	ft	1	11/10/2021 10:35	R303134
Measuring Point Height Above Land Surface	*	0		2.42	ft	1	11/10/2021 10:35	R303134
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		7.8	NTU	1	11/10/2021 10:35	R303134
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		57.6	°F	1	11/10/2021 10:35	R303134
SW-846 9040B								
pH, Field	*	1.00		6.81		1	11/10/2021 10:35	R303134
SW-846 9050A								
Spec. Conductance, Field	*	1.00		763	µmhos/cm @25C	1	11/10/2021 10:35	R303134
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		400	mg/L	1	11/12/2021 15:04	R302666
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		< 10	mg/L	1	11/16/2021 2:50	R302737
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.51	mg/L	1	11/11/2021 11:07	R302521
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		34	mg/L	1	11/16/2021 2:50	R302744
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	11/12/2021 21:17	184917
Barium	NELAP	0.0025		0.139	mg/L	1	11/12/2021 21:17	184917
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	11/12/2021 21:17	184917
Boron	NELAP	0.0200		0.256	mg/L	1	11/16/2021 13:25	184917
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	11/12/2021 21:17	184917
Calcium	NELAP	0.100		70.7	mg/L	1	11/12/2021 21:17	184917
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	11/12/2021 21:17	184917
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	11/12/2021 21:17	184917
Lead	NELAP	0.0150		< 0.0150	mg/L	1	11/12/2021 21:17	184917
Lithium	NELAP	0.0050		0.0085	mg/L	1	11/12/2021 21:17	184917
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	11/12/2021 21:17	184917
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	11/18/2021 2:46	184917
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	11/18/2021 2:46	184917
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	11/17/2021 3:15	184917
<i>CCV recovered outside the upper control limits for Se. Sample results are below the reporting limit. Data is reportable per the TNI standard.</i>								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	11/14/2021 16:04	184918
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	01/18/2022 0:00	R306320
Radium-228	*	0		See attached	pci/L	1	01/18/2022 0:00	R306320



Laboratory Results

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Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21110022-008
 Matrix: GROUNDWATER

Work Order: 21110022
 Report Date: 25-Jan-22
 Client Sample ID: AP-7
 Collection Date: 11/10/2021 11:18

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		496.50	ft	1	11/10/2021 11:18	R303134
Depth to water	*	-5.00		7.22	ft	1	11/10/2021 11:18	R303134
Depth to water from measuring point	*	0		9.88	ft	1	11/10/2021 11:18	R303134
Elevation of groundwater surface	*	0		529.14	ft	1	11/10/2021 11:18	R303134
Measuring Point Elevation	*	0		539.02	ft	1	11/10/2021 11:18	R303134
Measuring Point Height Above Land Surface	*	0		2.66	ft	1	11/10/2021 11:18	R303134
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		3.1	NTU	1	11/10/2021 11:18	R303134
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		56.7	°F	1	11/10/2021 11:18	R303134
SW-846 9040B								
pH, Field	*	1.00		6.92		1	11/10/2021 11:18	R303134
SW-846 9050A								
Spec. Conductance, Field	*	1.00		899	µmhos/cm @25C	1	11/10/2021 11:18	R303134
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		468	mg/L	1	11/12/2021 15:04	R302666
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		< 10	mg/L	1	11/16/2021 2:58	R302737
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.58	mg/L	1	11/11/2021 11:09	R302521
SW-846 9251 (TOTAL)								
Chloride	NELAP	5		69	mg/L	5	11/16/2021 3:17	R302744
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		0.0306	mg/L	1	11/16/2021 13:29	184917
Barium	NELAP	0.0025		0.143	mg/L	1	11/12/2021 21:21	184917
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	11/12/2021 21:21	184917
Boron	NELAP	0.0200		0.360	mg/L	1	11/16/2021 13:29	184917
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	11/12/2021 21:21	184917
Calcium	NELAP	0.100		66.2	mg/L	1	11/12/2021 21:21	184917
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	11/12/2021 21:21	184917
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	11/12/2021 21:21	184917
Lead	NELAP	0.0150		< 0.0150	mg/L	1	11/12/2021 21:21	184917
Lithium	NELAP	0.0050		0.0099	mg/L	1	11/12/2021 21:21	184917
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	11/12/2021 21:21	184917
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	11/18/2021 2:53	184917
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	11/18/2021 2:53	184917
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	11/17/2021 3:22	184917
<i>CCV recovered outside the upper control limits for Se. Sample results are below the reporting limit. Data is reportable per the TNI standard.</i>								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	11/14/2021 16:07	184918
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	01/18/2022 0:00	R306320
Radium-228	*	0		See attached	pci/L	1	01/18/2022 0:00	R306320



Laboratory Results

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Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21110022-009
 Matrix: GROUNDWATER

Work Order: 21110022
 Report Date: 25-Jan-22

Client Sample ID: AP-8

Collection Date: 11/10/2021 9:42

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		497.60	ft	1	11/10/2021 9:42	R303134
Depth to water	*	-5.00		1.92	ft	1	11/10/2021 9:42	R303134
Depth to water from measuring point	*	0		4.82	ft	1	11/10/2021 9:42	R303134
Elevation of groundwater surface	*	0		532.38	ft	1	11/10/2021 9:42	R303134
Measuring Point Elevation	*	0		537.20	ft	1	11/10/2021 9:42	R303134
Measuring Point Height Above Land Surface	*	0		2.90	ft	1	11/10/2021 9:42	R303134
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		7.1	NTU	1	11/10/2021 9:42	R303134
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		56.5	°F	1	11/10/2021 9:42	R303134
SW-846 9040B								
pH, Field	*	1.00		6.66		1	11/10/2021 9:42	R303134
SW-846 9050A								
Spec. Conductance, Field	*	1.00		1010	µmhos/cm @25C	1	11/10/2021 9:42	R303134
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		530	mg/L	1	11/12/2021 15:04	R302666
SW-846 9036 (TOTAL)								
Sulfate	NELAP	10		< 10	mg/L	1	11/16/2021 3:22	R302737
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.31	mg/L	1	11/11/2021 11:11	R302521
SW-846 9251 (TOTAL)								
Chloride	NELAP	1		25	mg/L	1	11/16/2021 3:22	R302744
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		0.0405	mg/L	1	11/12/2021 21:24	184917
Barium	NELAP	0.0025		0.386	mg/L	1	11/12/2021 21:24	184917
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	11/12/2021 21:24	184917
Boron	NELAP	0.0200		0.0917	mg/L	1	11/16/2021 13:33	184917
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	11/12/2021 21:24	184917
Calcium	NELAP	0.100		100	mg/L	1	11/12/2021 21:24	184917
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	11/12/2021 21:24	184917
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	11/12/2021 21:24	184917
Lead	NELAP	0.0150		< 0.0150	mg/L	1	11/12/2021 21:24	184917
Lithium	NELAP	0.0050		0.0078	mg/L	1	11/12/2021 21:24	184917
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	11/12/2021 21:24	184917
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	11/18/2021 2:59	184917
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	11/18/2021 2:59	184917
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	11/17/2021 3:29	184917
<i>CCV recovered outside the upper control limits for Se. Sample results are below the reporting limit. Data is reportable per the TNI standard.</i>								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	11/14/2021 16:14	184920
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	01/18/2022 0:00	R306320
Radium-228	*	0		See attached	pci/L	1	01/18/2022 0:00	R306320



Laboratory Results

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Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21110022-010
 Matrix: GROUNDWATER

Work Order: 21110022
 Report Date: 25-Jan-22

Client Sample ID: AP-10

Collection Date: 11/09/2021 15:09

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		499.43	ft	1	11/09/2021 15:09	R303134
Depth to water	*	-5.00		-0.06	ft	1	11/09/2021 15:09	R303134
Depth to water from measuring point	*	0		3.04	ft	1	11/09/2021 15:09	R303134
Elevation of groundwater surface	*	0		534.46	ft	1	11/09/2021 15:09	R303134
Measuring Point Elevation	*	0		537.50	ft	1	11/09/2021 15:09	R303134
Measuring Point Height Above Land Surface	*	0		3.10	ft	1	11/09/2021 15:09	R303134
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		200	NTU	1	11/09/2021 15:09	R303134
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		56.7	°F	1	11/09/2021 15:09	R303134
SW-846 9040B								
pH, Field	*	1.00		6.59		1	11/09/2021 15:09	R303134
SW-846 9050A								
Spec. Conductance, Field	*	1.00		1190	µmhos/cm @25C	1	11/09/2021 15:09	R303134
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		754	mg/L	1	11/12/2021 15:04	R302666
SW-846 9036 (TOTAL)								
Sulfate	NELAP	50		86	mg/L	5	11/16/2021 3:30	R302737
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.34	mg/L	1	11/11/2021 11:12	R302521
SW-846 9251 (TOTAL)								
Chloride	NELAP	5		30	mg/L	5	11/16/2021 3:30	R302744
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	11/12/2021 21:28	184917
Barium	NELAP	0.0025		0.624	mg/L	1	11/12/2021 21:28	184917
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	11/12/2021 21:28	184917
Boron	NELAP	0.0200		3.59	mg/L	1	11/16/2021 14:50	184917
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	11/12/2021 21:28	184917
Calcium	NELAP	0.100		151	mg/L	1	11/12/2021 21:28	184917
Chromium	NELAP	0.0050		0.0056	mg/L	1	11/12/2021 21:28	184917
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	11/12/2021 21:28	184917
Lead	NELAP	0.0150		< 0.0150	mg/L	1	11/12/2021 21:28	184917
Lithium	NELAP	0.0050		0.0141	mg/L	1	11/12/2021 21:28	184917
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	11/12/2021 21:28	184917
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	11/18/2021 3:06	184917
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	11/18/2021 3:06	184917
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	11/17/2021 3:35	184917
<i>CCV recovered outside the upper control limits for Se. Sample results are below the reporting limit. Data is reportable per the TNI standard.</i>								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	11/14/2021 16:16	184920
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	01/18/2022 0:00	R306320
Radium-228	*	0		See attached	pci/L	1	01/18/2022 0:00	R306320



Laboratory Results

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Client: City Water, Light & Power
 Client Project: Ash Pond Monitoring Wells
 Lab ID: 21110022-011
 Matrix: GROUNDWATER

Work Order: 21110022
 Report Date: 25-Jan-22

Client Sample ID: AP-14

Collection Date: 11/09/2021 10:23

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
FIELD ELEVATION MEASUREMENTS								
Bottom of well elevation	*	0		508.40	ft	1	11/09/2021 12:23	R303134
Depth to water	*	-5.00		-0.69	ft	1	11/09/2021 12:23	R303134
Depth to water from measuring point	*	0		2.11	ft	1	11/09/2021 12:23	R303134
Elevation of groundwater surface	*	0		537.49	ft	1	11/09/2021 12:23	R303134
Measuring Point Elevation	*	0		539.60	ft	1	11/09/2021 12:23	R303134
Measuring Point Height Above Land Surface	*	0		2.80	ft	1	11/09/2021 12:23	R303134
STANDARD METHODS 2130 B FIELD								
Turbidity	*	1.0		3.5	NTU	1	11/09/2021 12:23	R303134
STANDARD METHODS 2550 B FIELD								
Temperature	*	0		55.9	°F	1	11/09/2021 12:23	R303134
SW-846 9040B								
pH, Field	*	1.00		6.73		1	11/09/2021 12:23	R303134
SW-846 9050A								
Spec. Conductance, Field	*	1.00		1540	µmhos/cm @25C	1	11/09/2021 12:23	R303134
STANDARD METHODS 2540 C (TOTAL) 1997, 2011								
Total Dissolved Solids	*	20		1280	mg/L	1	11/12/2021 15:05	R302666
SW-846 9036 (TOTAL)								
Sulfate	NELAP	200		670	mg/L	20	11/16/2021 3:35	R302737
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.29	mg/L	1	11/11/2021 11:14	R302521
SW-846 9251 (TOTAL)								
Chloride	NELAP	20		47	mg/L	20	11/16/2021 3:36	R302744
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	11/12/2021 21:32	184917
Barium	NELAP	0.0025		0.0347	mg/L	1	11/12/2021 21:32	184917
Beryllium	NELAP	0.0005		< 0.0005	mg/L	1	11/12/2021 21:32	184917
Boron	NELAP	0.200	S	22.3	mg/L	10	11/16/2021 14:39	184917
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	11/12/2021 21:32	184917
Calcium	NELAP	0.100	S	222	mg/L	1	11/12/2021 21:32	184917
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	11/12/2021 21:32	184917
Cobalt	NELAP	0.0050		< 0.0050	mg/L	1	11/12/2021 21:32	184917
Lead	NELAP	0.0150		< 0.0150	mg/L	1	11/12/2021 21:32	184917
Lithium	NELAP	0.0050		0.0071	mg/L	1	11/12/2021 21:32	184917
Molybdenum	NELAP	0.0100		< 0.0100	mg/L	1	11/12/2021 21:32	184917
<i>Matrix spike control limits for B are not applicable due to high sample/spike ratio.</i>								
<i>Matrix spike control limits for Ca are not applicable due to high sample/spike ratio.</i>								
SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)								
Antimony	NELAP	0.0010		< 0.0010	mg/L	5	11/18/2021 3:13	184917
Selenium	NELAP	0.0010		< 0.0010	mg/L	5	11/18/2021 3:13	184917
Thallium	NELAP	0.0020		< 0.0020	mg/L	5	11/17/2021 4:28	184917
<i>CCV recovered outside the upper control limits for Se. Sample results are below the reporting limit. Data is reportable per the TNI standard.</i>								
SW-846 7470A (TOTAL)								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	11/14/2021 16:18	184920
EPA 903.0/904.0, RADIUM 226/228								
Radium-226	*	0		See attached	pci/L	1	01/18/2022 0:00	R306320



Laboratory Results

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

Client: City Water, Light & Power
Client Project: Ash Pond Monitoring Wells
Lab ID: 21110022-011
Matrix: GROUNDWATER

Work Order: 21110022
Report Date: 25-Jan-22
Client Sample ID: AP-14
Collection Date: 11/09/2021 10:23

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 903.0/904.0, RADIUM 226/228								
Radium-228	*	0		See attached	pci/L	1	01/18/2022 0:00	R306320



Receiving Check List

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

Client: City Water, Light & Power

Work Order: 21110022

Client Project: Ash Pond Monitoring Wells

Report Date: 25-Jan-22

Carrier: Joseph Riley

Received By: PWR

Completed by:

Reviewed by:

On:

11-Nov-21

Patrick Riley

On:

11-Nov-21

Elizabeth A. Hurley

Pages to follow: Chain of custody

Extra pages included

- Shipping container/cooler in good condition? Yes No Not Present Temp °C **2.2**
- 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.

pH strip #77625/. - patrickriley - 11/11/2021 9:37:20 AM

Additional nitric acid (79318) was needed in AP-7, AP-8, and AP-10 upon arrival at the laboratory. - patrickriley - 11/11/2021 9:38:04 AM

CHAIN OF CUSTODY

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

Client: <u>City Water, Light & Power</u> Address: <u>3100 Stevenson Drive, 2nd Floor Maintenance Building</u> City/State/Zip: <u>Springfield IL 62712</u> Contact: <u>Eric Staley</u> Phone: <u>(217) 757-8610</u> Email: <u>eric.staley@cwlp.com</u> Fax: _____				Samples on: <input checked="" type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input type="checkbox"/> NO ICE <u>2.2 °C LTG</u> Preserved in: <input checked="" type="checkbox"/> LAB <input type="checkbox"/> FIELD <u>77625</u> FOR LAB USE ONLY <u>1</u> LAB NOTES: <u>ADD H#03(29310) to AD7, AP8, AP10 PR 11/11/21</u>																
Are these samples known to be involved in litigation? If yes, a surcharge will apply: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are these samples known to be hazardous? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <u>Permit on file</u>				Client Comments: *elevations, pH, conductivity, temperature **Sb Se TI (ICPMS) As Ba Be B Cd Ca Cr Co Pb Li Hg Mo Quarterly monitoring																
PROJECT NAME/NUMBER <u>Ash Pond Monitoring Wells</u>		SAMPLE COLLECTOR'S NAME <u>J. RILEY ABRIDGES</u>		# and Type of Containers		INDICATE ANALYSIS REQUESTED														
RESULTS REQUESTED <input checked="" type="checkbox"/> Standard <input type="checkbox"/> 1-2 Day (100% Surcharge) <input type="checkbox"/> Other <input type="checkbox"/> 3 Day (50% Surcharge)			BILLING INSTRUCTIONS			UNP	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	TSP	Other	Field parameters*	Cl F SO4 TDS (T)	Metals (T)**	Radium-226	Radium-228	Field Turbidity
Lab Use Only	Sample ID	Date/Time Sampled		Matrix																
21110022-001	RW-3	10/10/21 1010		Groundwater		1	3							✓	✓	✓	✓	✓	✓	
002	AP-1	11/10/21 1531		Groundwater		1	3							✓	✓	✓	✓	✓	✓	
003	AP-2	11/9/21	11/10/21 1409		Groundwater		1	3						✓	✓	✓	✓	✓	✓	
004	AP-3	11/9/21	11/10/21 1348		Groundwater		1	3						✓	✓	✓	✓	✓	✓	
005	AP-4	11/9/21	11/10/21 1310		Groundwater		1	3						✓	✓	✓	✓	✓	✓	
006	AP-5	11/10/21 1601		Groundwater		1	3							✓	✓	✓	✓	✓	✓	
007	AP-6	11/10/21 1035		Groundwater		1	3							✓	✓	✓	✓	✓	✓	
008	AP-7	11/10/21 1118		Groundwater		1	3							✓	✓	✓	✓	✓	✓	
009	AP-8	11/10/21 0942		Groundwater		1	3							✓	✓	✓	✓	✓	✓	
010	AP-10	11/9/21	11/10/21 1509		Groundwater		1	3						✓	✓	✓	✓	✓	✓	
011	AP-14	11/9/21	11/10/21 1023		Groundwater		1	3						✓	✓	✓	✓	✓	✓	
Relinquished By: <u>[Signature]</u>				Date/Time: <u>11/11/21 0745</u>		Received By: <u>[Signature]</u>				Date/Time: <u>11/11/21 0745</u>										

*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

PR
11/11/21

Well ID							Final	Units
RW3	DTW	8.68	12.48	13.11	14.26	15.1	8.68	ft
	DTB							ft
	MP Elev							ft
	Time	955	1001	1004	1007	1010	1010	
	Temp		13.9	14.1	13.9	13.9	13.9	C
	D.O.		0.46	0.38	0.31	0.28	0.28	Mg/l
	Cond		800	798	797	795	795	uS/cm
	pH		6.85	6.89	6.92	6.94	6.94	
	Orp		-151.2	-154.8	-157.4	-158.6	-158.6	mV
	Turbidity		3.79	4.45	7.07	6.2	6.2	NTU
	Drawdn		3.8	4.43	5.58	6.42	6.42	ft
	Volume		0.26	0.39	0.52	0.65	0.65	Gallon

SLIGHT ODOR
CLEAR
NO COLOR

Well ID						Final	Units
AP1	DTW	8.99	8.99	8.99	8.99	8.99	ft
	DTB						ft
	MP Elev						ft
	Time	1519	1525	1528	1531	1531	
	Temp		14.3	14.3	14.3	14.3	C
	D.O.		0.38	0.28	0.24	0.24	Mg/l
	Cond		1805	1805	1804	1804	uS/cm
	pH		6.48	6.49	6.49	6.49	
	Orp		-106.2	-109.7	-112.2	-112.2	mV
	Turbidity		2.65	2.14	0.15	0.15	NTU
	Drawdn		0	0	0	0	ft
	Volume		0.26	0.39	0.52	0.52	Gallon

CLEAR
 SLIGHT ODOR
 NO COLOR

Well ID						Final	Units
AP2	DTW	6.84	6.84	6.84	6.84	6.84	ft
	DTB						ft
	MP Elev						ft
	Time	1357	1403	1406	1409	1409	
	Temp		15.8	15.8	15.8	15.8	C
	D.O.		0.31	0.25	0.24	0.24	Mg/l
	Cond		1737	1759	1771	1771	uS/cm
	pH		6.28	6.25	6.25	6.25	
	Orp		0.3	-1.1	-2.7	-2.7	mV
	Turbidity		0	0	0	0	NTU
	Drawdn		0	0	0	0	ft
	Volume		0.26	0.39	0.52	0.52	Gallon

CLEAR
NO ODOR
NO COLOR

Well ID						Final	Units
AP3	DTW	9.09	9.09	9.09	9.09	9.09	ft
	DTB						ft
	MP Elev						ft
	Time	1324	1342	1345	1348	1348	
	Temp		16.8	16.7	16.8	16.8	C
	D.O.		0.56	0.48	0.42	0.42	Mg/l
	Cond		1109	1105	1114	1114	uS/cm
	pH		6.52	6.5	6.49	6.49	
	Orp		-73.1	-69.3	-73.5	-73.5	mV
	Turbidity		14.83	12.85	9.71	9.71	NTU
	Drawdn		0	0	0	0	ft
	Volume		0.78	0.91	1.04	1.04	Gallon

NO ODOR
CLEAR
NO COLOR

Well ID							Final	Units
AP4	DTW	9.21	9.21	9.21	9.21	9.21	9.21	ft
	DTB							ft
	MP Elev							ft
	Time	1237	1301	1304	1307	1310	1310	
	Temp		16.3	16.3	16.2	16.2	16.2	C
	D.O.		0.2	0.2	0.18	0.18	0.18	Mg/l
	Cond		895	894	894	892	892	uS/cm
	pH		6.75	6.75	6.75	6.75	6.75	
	Orp		-160.5	-160.8	-161.2	-161	-161	mV
	Turbidity		17.85	20.44	20.12	19.25	19.25	NTU
	Drawdn		0	0	0	0	0	ft
	Volume		1.04	1.17	1.3	1.43	1.43	Gallon

LT BROWN
MODERATE ODOR
CLEAR

Well ID						Final	Units
AP5	DTW	13.34	16.24	16.41	16.41	13.34	ft
	DTB						ft
	MP Elev						ft
	Time	1549	1555	1558	1601	1601	
	Temp		13.9	13.8	13.8	13.8	C
	D.O.		1.59	1.6	1.72	1.72	Mg/l
	Cond		800	790	780	780	uS/cm
	pH		6.99	6.97	6.97	6.97	
	Orp		1.5	-1.8	-2.9	-2.9	mV
	Turbidity		2.82	0.74	0.18	0.18	NTU
	Drawdn		1.9	0.17	0	0	ft
	Volume		0.26	0.39	0.52	0.52	Gallon

CLEAR
NO COLOR
NO ODOR

Well ID						Final	Units
AP6	DTW	7.2	9.97	9.97	9.97	9.97	ft
	DTB						ft
	MP Elev						ft
	Time	1026	1029	1032	1035	1035	
	Temp		14.2	14.1	14.2	14.2	C
	D.O.		0.86	0.56	0.77	0.77	Mg/l
	Cond		764	764	763	763	uS/cm
	pH		6.81	6.8	6.81	6.81	
	Orp		-16	-17.2	-16.6	-16.6	mV
	Turbidity		5.41	4.55	7.84	7.84	NTU
	Drawdn		2.77	0	0	0	ft
	Volume		0.13	0.26	0.39	0.39	Gallon

NO ODOR
CLEAR
NO COLOR

Well ID					Final	Units
AP7	DTW	9.88	12.11	13.14	13.82	9.88 ft
	DTB					ft
	MP Elev					ft
	Time	1109	1112	1115	1118	1118
	Temp		13.5	1.7	13.7	13.7 C
	D.O.		0.8	0.49	0.41	0.41 Mg/l
	Cond		898	899	899	899 uS/cm
	pH		6.96	6.93	6.92	6.92
	Orp		-120.8	-128.7	-132.1	-132.1 mV
	Turbidity		4.42	4.54	3.1	3.1 NTU
	Drawdn		2.23	1.03	0.68	0.68 ft
	Volume		0.13	0.26	0.39	0.39 Gallon

SLIGHT ODOR
CLEAR
NO COLOR

Well ID							Final	Units
AP8	DTW	4.82	4.82	4.82	4.82	4.82	4.82	ft
	DTB							ft
	MP Elev							ft
	Time	839	933	936	939	942	942	
	Temp		13.5	13.6	13.6	13.6	13.6	C
	D.O.		0.47	0.39	0.34	0.32	0.32	Mg/l
	Cond		1008	1009	1009	1010	1010	uS/cm
	pH		6.78	6.69	6.67	6.66	6.66	
	Orp		-139.7	-139.7	-140.5	-142.3	-142.3	mV
	Turbidity		9.74	9.88	7.53	7.1	7.1	NTU
	Drawdn		0	0	0	0	0	ft
	Volume		2.34	2.47	2.6	2.7	2.7	Gallon

CLEAR
NO COLOR
SLIGHT ODOR

Well ID						Final	Units	
AP10	DTW	3.04	3.04	3.04	3.04	3.04	ft	
	DTB						ft	
	MP Elev						ft	
	Time	1415	1500	1503	1506	1509		
	Temp		13.7	13.7	13.7	13.7	C	CLOUDY
	D.O.		4.02	4.19	3.82	3.77	Mg/l	MODERATE ODOR
	Cond		1185	1186	1185	1186	uS/cm	GREY
	pH		6.59	6.59	6.59	6.59		
	Orp		-82.4	-82.2	-83.2	-83.4	mV	
	Turbidity		198.25	206.98	190.27	198.34	NTU	
	Drawdn		0	0	0	0	ft	
	Volume		1.95	2.08	2.21	2.34	Gallon	

SUBMERSIBLE

SOME SORTOF CLOUD FORMS WHEN THE PUMP PUMPS. DISSIPATES QUICKLY

Well ID								Final	Units		
AP14	DTW	2.11	2.11	2.11	2.11	2.11	2.11		2.11 ft		
	DTB								ft		
	MP Elev								ft	OUTLOOK:	CLEAR
	Time	1117	1211	1214	1217	1220	1223	1223		COLOR:	NONE
	Temp		13.3	13.3	13.3	13.3	13.3	13.3	13.3 C	ODOR:	NONE
	D.O.		1.46	1.41	1.42	1.28	1.33	1.33	1.33 Mg/l		
	Cond		1539	1538	1538	1537	1536	1536	uS/cm		
	pH		6.98	6.84	6.77	6.74	6.73	6.73			
	Orp		-36.3	-33.1	-29.5	-32.1	-31.3	-31.3	mV		
	Turbidity		9.19	7.78	5.58	4.22	3.49	3.49	NTU		
	Drawdn		0	0	0	0	0	0	ft		
	Volume		2.34	2.47	2.6	2.73	2.86	2.86	Gallon		

January 25, 2022

Ms. Shelly Hennessy
Teklab Inc.
5445 Horseshoe Lake Road
Collinsville, IL 62234

RE: Project: 21110022-Revised Report
Pace Project No.: 30452303

Dear Ms. Hennessy:

Enclosed are the analytical results for sample(s) received by the laboratory on November 15, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

(Greensburg PA) - Revision 2 - This report replaces the January 25, 2022 initial revised report. report. This project was revised on January 25, 2022 to remove the 901.01 data results.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



David A. Pichette
david.pichette@pacelabs.com
(724)850-5617
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
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CERTIFICATIONS

Project: 21110022-Revised Report
Pace Project No.: 30452303

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Florida: Cert E871149 SEKS WET
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 21110022-Revised Report

Pace Project No.: 30452303

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30452303001	21110022-001	Water	11/10/21 10:10	11/15/21 09:54
30452303002	21110022-002	Water	11/10/21 15:31	11/15/21 09:54
30452303003	21110022-003	Water	11/09/21 14:09	11/15/21 09:54
30452303004	21110022-004	Water	11/09/21 13:48	11/15/21 09:54
30452303005	21110022-005	Water	11/09/21 13:10	11/15/21 09:54
30452303006	21110022-006	Water	11/10/21 16:01	11/15/21 09:54
30452303007	21110022-007	Water	11/10/21 10:35	11/15/21 09:54
30452303008	21110022-008	Water	11/10/21 11:18	11/15/21 09:54
30452303009	21110022-009	Water	11/10/21 09:42	11/15/21 09:54
30452303010	21110022-010	Water	11/09/21 15:09	11/15/21 09:54
30452303011	21110022-011	Water	11/09/21 12:23	11/15/21 09:54

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 21110022-Revised Report
Pace Project No.: 30452303

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30452303001	21110022-001	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	JC2	1	PASI-PA
30452303002	21110022-002	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	JC2	1	PASI-PA
30452303003	21110022-003	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	JC2	1	PASI-PA
30452303004	21110022-004	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	JC2	1	PASI-PA
30452303005	21110022-005	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	JC2	1	PASI-PA
30452303006	21110022-006	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	JC2	1	PASI-PA
30452303007	21110022-007	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	JC2	1	PASI-PA
30452303008	21110022-008	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	JC2	1	PASI-PA
30452303009	21110022-009	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	JC2	1	PASI-PA
30452303010	21110022-010	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	JC2	1	PASI-PA
30452303011	21110022-011	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	JC2	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 21110022-Revised Report

Pace Project No.: 30452303

Method: EPA 903.1

Description: 903.1 Radium 226

Client: Teklab Inc.

Date: January 25, 2022

General Information:

11 samples were analyzed for EPA 903.1 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 21110022-Revised Report

Pace Project No.: 30452303

Method: EPA 904.0

Description: 904.0 Radium 228

Client: Teklab Inc.

Date: January 25, 2022

General Information:

11 samples were analyzed for EPA 904.0 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21110022-Revised Report

Pace Project No.: 30452303

Sample: 21110022-001 **Lab ID: 30452303001** Collected: 11/10/21 10:10 Received: 11/15/21 09:54 Matrix: Water

PWS: Site ID: Sample Type:

Comments: • The sampler's name and signature were not listed on the COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.120 ± 0.498 (0.950) C:NA T:96%	pCi/L	01/21/22 14:42	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.275 ± 0.404 (0.871) C:69% T:89%	pCi/L	01/18/22 14:25	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21110022-Revised Report

Pace Project No.: 30452303

Sample: 21110022-002 **Lab ID: 30452303002** Collected: 11/10/21 15:31 Received: 11/15/21 09:54 Matrix: Water

PWS: Site ID: Sample Type:

Comments: • The sampler's name and signature were not listed on the COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	-0.182 ± 0.358 (0.858) C:NA T:99%	pCi/L	01/21/22 14:42	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.281 ± 0.522 (1.14) C:54% T:81%	pCi/L	01/18/22 14:26	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21110022-Revised Report

Pace Project No.: 30452303

Sample: 21110022-003 **Lab ID: 30452303003** Collected: 11/09/21 14:09 Received: 11/15/21 09:54 Matrix: Water

PWS: Site ID: Sample Type:

Comments: • The sampler's name and signature were not listed on the COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.100 ± 0.278 (0.540) C:NA T:101%	pCi/L	01/21/22 14:42	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.0411 ± 0.458 (1.06) C:56% T:86%	pCi/L	01/18/22 14:26	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21110022-Revised Report

Pace Project No.: 30452303

Sample: 21110022-004 **Lab ID: 30452303004** Collected: 11/09/21 13:48 Received: 11/15/21 09:54 Matrix: Water

PWS: Site ID: Sample Type:

Comments: • The sampler's name and signature were not listed on the COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.0588 ± 0.268 (0.432) C:NA T:98%	pCi/L	01/21/22 14:42	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.301 ± 0.524 (1.14) C:56% T:78%	pCi/L	01/18/22 14:25	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21110022-Revised Report

Pace Project No.: 30452303

Sample: 21110022-005 **Lab ID: 30452303005** Collected: 11/09/21 13:10 Received: 11/15/21 09:54 Matrix: Water

PWS: Site ID: Sample Type:

Comments: • The sampler's name and signature were not listed on the COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	2.28 ± 0.847 (0.682) C:NA T:93%	pCi/L	01/21/22 14:42	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.382 ± 0.397 (0.826) C:71% T:90%	pCi/L	01/18/22 14:25	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21110022-Revised Report

Pace Project No.: 30452303

Sample: 21110022-006 **Lab ID: 30452303006** Collected: 11/10/21 16:01 Received: 11/15/21 09:54 Matrix: Water

PWS: Site ID: Sample Type:

Comments: • The sampler's name and signature were not listed on the COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.000 ± 0.352 (0.762) C:NA T:102%	pCi/L	01/21/22 15:10	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	-0.0504 ± 0.443 (1.05) C:65% T:81%	pCi/L	01/18/22 14:25	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21110022-Revised Report

Pace Project No.: 30452303

Sample: 21110022-007 **Lab ID: 30452303007** Collected: 11/10/21 10:35 Received: 11/15/21 09:54 Matrix: Water

PWS: Site ID: Sample Type:

Comments: • The sampler's name and signature were not listed on the COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.444 ± 0.380 (0.515) C:NA T:99%	pCi/L	01/21/22 15:10	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.628 ± 0.457 (0.888) C:66% T:88%	pCi/L	01/18/22 14:25	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21110022-Revised Report

Pace Project No.: 30452303

Sample: 21110022-008 **Lab ID: 30452303008** Collected: 11/10/21 11:18 Received: 11/15/21 09:54 Matrix: Water

PWS: Site ID: Sample Type:

Comments: • The sampler's name and signature were not listed on the COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	1.09 ± 0.561 (0.589) C:NA T:99%	pCi/L	01/21/22 15:23	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.793 ± 0.582 (1.14) C:50% T:93%	pCi/L	01/18/22 14:25	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21110022-Revised Report

Pace Project No.: 30452303

Sample: 21110022-009 **Lab ID: 30452303009** Collected: 11/10/21 09:42 Received: 11/15/21 09:54 Matrix: Water
PWS: Site ID: Sample Type:

Comments: • The sampler's name and signature were not listed on the COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.787 ± 0.438 (0.164) C:NA T:94%	pCi/L	01/21/22 15:23	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.239 ± 0.412 (0.898) C:64% T:90%	pCi/L	01/18/22 14:26	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21110022-Revised Report

Pace Project No.: 30452303

Sample: 21110022-010 **Lab ID: 30452303010** Collected: 11/09/21 15:09 Received: 11/15/21 09:54 Matrix: Water

PWS: Site ID: Sample Type:

Comments: • The sampler's name and signature were not listed on the COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.672 ± 0.532 (0.776) C:NA T:102%	pCi/L	01/21/22 15:23	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.956 ± 0.528 (0.945) C:62% T:85%	pCi/L	01/18/22 14:26	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 21110022-Revised Report

Pace Project No.: 30452303

Sample: 21110022-011 **Lab ID: 30452303011** Collected: 11/09/21 12:23 Received: 11/15/21 09:54 Matrix: Water

PWS: Site ID: Sample Type:

Comments: • The sampler's name and signature were not listed on the COC.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.0562 ± 0.397 (0.792) C:NA T:101%	pCi/L	01/21/22 15:23	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.563 ± 0.485 (0.977) C:58% T:88%	pCi/L	01/18/22 14:26	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 21110022-Revised Report

Pace Project No.: 30452303

QC Batch: 478400

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30452303001, 30452303002, 30452303003, 30452303004, 30452303005, 30452303006, 30452303007, 30452303008, 30452303009, 30452303010, 30452303011

METHOD BLANK: 2312068

Matrix: Water

Associated Lab Samples: 30452303001, 30452303002, 30452303003, 30452303004, 30452303005, 30452303006, 30452303007, 30452303008, 30452303009, 30452303010, 30452303011

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0398 ± 0.322 (0.664) C:NA T:96%	pCi/L	01/21/22 14:42	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 21110022-Revised Report

Pace Project No.: 30452303

QC Batch: 478401

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30452303001, 30452303002, 30452303003, 30452303004, 30452303005, 30452303006, 30452303007, 30452303008, 30452303009, 30452303010, 30452303011

METHOD BLANK: 2312069

Matrix: Water

Associated Lab Samples: 30452303001, 30452303002, 30452303003, 30452303004, 30452303005, 30452303006, 30452303007, 30452303008, 30452303009, 30452303010, 30452303011

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.0784 ± 0.304 (0.738) C:68% T:82%	pCi/L	01/18/22 14:23	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 21110022-Revised Report
Pace Project No.: 30452303

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.

Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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TEKLAB, INC. Chain of Custody

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

Are the samples chilled? YES NO With: Ice Blue Ice Lab Field

Teklab Inc
5445 Horseshoe Lake Road
Collinsville, IL 62234

Cooler Temp: Sampler:

QC Level: 2

Project#

21110022

Contact: Shelly Hennessy

Email: shennessy@teklabinc.com

Requested Due Date: Standard

Billing/PO: 32120

Phone: 618-344-1004 x 36

Comments: **Please issue reports and invoices via email only**

Please analyze for Radium (226, 228) by method EPA 903.0/904.0.1 on your standard turnaround time.

Batch QC is required for all analyses requested. Sample collected in (state): Illinois

Any changes to analysis/methods must be approved by Teklab, Inc.

PLEASE NOTE

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

WO#: 30452303



Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium
	21110022-001	11/10/21 1010	HNO3	Groundwater	<input checked="" type="checkbox"/>
	21110022-002	11/10/21 1531	HNO3	Groundwater	<input checked="" type="checkbox"/>
	21110022-003	11/9/21 1409	HNO3	Groundwater	<input checked="" type="checkbox"/>
	21110022-004	↓ 1348	HNO3	Groundwater	<input checked="" type="checkbox"/>
	21110022-005	↓ 1310	HNO3	Groundwater	<input checked="" type="checkbox"/>
	21110022-006	11/10/21 1601	HNO3	Groundwater	<input checked="" type="checkbox"/>
	21110022-007	↓ 1035	HNO3	Groundwater	<input checked="" type="checkbox"/>
	21110022-008	↓ 1118	HNO3	Groundwater	<input checked="" type="checkbox"/>
	21110022-009	↓ 0942	HNO3	Groundwater	<input checked="" type="checkbox"/>
	21110022-010	11/9/21 1509	HNO3	Groundwater	<input checked="" type="checkbox"/>
	21110022-011	11/9/21 1723	HNO3	Groundwater	<input checked="" type="checkbox"/>

Relinquished By	Date/Time	Received By	Date/Time
<i>Shelly Hennessy</i>	11/11/21 1600	<i>Shelly Hennessy</i>	11-15-21 @ 0954

Pittsburgh Lab Sample Condition Upon Receipt



Client Name: TekLab Project # _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 5300 5201 7368

Label	<u>Rjn</u>
LIMS Login	<u>Rjn</u>

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Thermometer Used _____ Type of Ice: Wet Blue None

Cooler Temperature Observed Temp _____ °C Correction Factor: _____ °C Final Temp: _____ °C
Temp should be above freezing to 6°C

Comments:	Yes	No	N/A	pH paper Lot#	Date and Initials of person examining contents: <u>Rjn 11-26-21</u>	
Chain of Custody Present:	/			<u>1003801</u>		
Chain of Custody Filled Out:	/					
Chain of Custody Relinquished:	/					
Sampler Name & Signature on COC:		/				
Sample Labels match COC:	/					
-Includes date/time/ID Matrix: <u>WT</u>						
Samples Arrived within Hold Time:	/					
Short Hold Time Analysis (<72hr remaining):		/				
Rush Turn Around Time Requested:		/				
Sufficient Volume:	/					
Correct Containers Used:	/					
-Pace Containers Used:		/				
Containers Intact:	/					
Orthophosphate field filtered			/			
Hex Cr Aqueous sample field filtered			/			
Organic Samples checked for dechlorination:			/			
Filtered volume received for Dissolved tests			/			
All containers have been checked for preservation.	/					
exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix				<u>P422</u>		
All containers meet method preservation requirements.	/			Initial when completed <u>Rjn</u>	Date/time of preservation	
				Lot # of added preservative		
Headspace in VOA Vials (>6mm):			/			
Trip Blank Present:			/			
Trip Blank Custody Seals Present			/			
Rad Samples Screened < 0.5 mrem/hr	/			Initial when completed: <u>Rjn</u>	Date: <u>11-26-21</u>	Survey Meter SN: <u>1567</u>

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

A check in this box indicates that additional information has been stored in ereports.

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)
*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

WO#: 30452303

Due Date: 12/08/21

PM: DAP

CLIENT: TEKLAB