

DATA SUMMARY POSTING

Station: Midwest Generation Powerton Generating Station

Regulated Unit(s): Former Ash Basin (IEPA ID No. W1798010008-05)

In accordance with the new Ill. Adm. Code Title 35, Part 845: Standards for the Disposal of Coal Combustion Residuals in Surface Impoundments (State CCR Rule) groundwater monitoring was completed during the 2nd quarter 2022 which includes the entire list of parameters specified under Section 845.600(a)(1) and (b). Table 1 is a summary table of all available CCR monitoring data to date including any data generated previously as part of the Federal CCR Rule monitoring. In addition, Table 2 provides a summary of turbidity data which was collected as part of State CCR Rule requirements which is a data parameter that was not required under the Federal CCR Rule.

No background statistics or proposed Groundwater Protection Standards are included on these tables. The background statistics and Proposed Groundwater Protection Standards were submitted to Illinois Environmental Protection Agency (EPA) as part of the Application for Initial Operating Permit submitted October 31, 2021. Upon Illinois EPA approval of the Operating Permit and Proposed Groundwater Protection Standards, the approved comparison values will be included on the tables for subsequent data comparisons/evaluations.

Table 2. Groundwater Turbidity - Midwest Generation, LLC, Powerton Station, Pekin, IL. Former Ash Basin.

Well	Date	Turbidity (NTU)
MW-01	2/23/2021	78.20
	4/9/2021	6.96
	5/10/2021	3.24
	6/2/2021	3.80
	6/28/2021	4.30
	7/19/2021	4.88
	8/24/2021	3.34
	9/30/2021	3.04
	11/30/2021	5.43
	2/9/2022	11.5
6/7/2022	3.63	
MW-10	2/23/2021	257.70
	4/9/2021	54.91
	5/11/2021	24.74
	6/2/2021	6.02
	6/28/2021	14.11
	7/19/2021	17.53
	8/24/2021	41.55
	9/30/2021	17.07
	11/30/2021	11.92
	2/9/2022	224.6
6/7/2022	7.88	
MW-02	2/22/2021	19.60
	4/8/2021	4.55
	5/11/2021	1.82
	6/2/2021	2.06
	6/28/2021	2.67
	7/19/2021	3.56
	8/24/2021	5.23
	10/1/2021	2.76
	11/30/2021	0.0
	2/8/2022	0.0
6/7/2022	2.03	
MW-03	2/22/2021	8.20
	4/8/2021	4.00
	5/11/2021	2.68
	6/2/2021	3.63
	6/28/2021	3.32
	7/19/2021	4.22
	8/24/2021	5.75
	10/1/2021	2.45
	11/30/2021	0.0
	2/8/2022	0.0
6/7/2022	1.72	
MW-04	2/22/2021	4.20
	4/8/2021	4.05
	5/11/2021	4.33
	6/2/2021	2.12
	6/28/2021	8.21
	7/19/2021	3.84
	8/24/2021	2.92
	10/1/2021	2.72
	11/30/2021	0.0
	2/8/2022	11.09
6/7/2022	1.62	
MW-05	2/22/2021	1.72
	4/8/2021	4.00
	5/11/2021	1.82
	6/2/2021	1.88
	6/28/2021	3.49
	7/19/2021	8.39
	8/24/2021	3.20
	10/1/2021	3.12
	11/30/2021	0.0
	2/8/2022	0.0
6/7/2022	2.33	

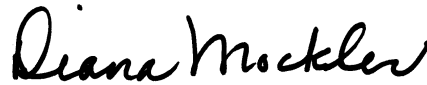
ANALYTICAL REPORT

Eurofins Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-217777-1
Client Project/Site: Powerton CCR FAB

For:
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 1A
Brookfield, Wisconsin 53005

Attn: Richard Gnat



Authorized for release by:
6/22/2022 10:18:15 AM

Diana Mockler, Project Manager I
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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Method Summary	4
Sample Summary	5
Client Sample Results	6
Definitions	13
QC Association	14
QC Sample Results	17
Chain of Custody	22
Receipt Checklists	24
Chronicle	25
Certification Summary	28

Case Narrative

Client: KPRG and Associates, Inc.
Project/Site: Powerton CCR FAB

Job ID: 500-217777-1

Job ID: 500-217777-1

Laboratory: Eurofins Chicago

Narrative

Job Narrative
500-217777-1

Comments

No additional comments.

Receipt

The samples were received on 6/8/2022 5:43 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.9° C, 0.9° C and 1.5° C.

Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Powerton CCR FAB

Job ID: 500-217777-1

Method	Method Description	Protocol	Laboratory
6020A	Metals (ICP/MS)	SW846	TAL CHI
7470A	Mercury (CVAA)	SW846	TAL CHI
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CHI
SM 4500 Cl- E	Chloride, Total	SM	TAL CHI
SM 4500 F C	Fluoride	SM	TAL CHI
SM 4500 SO4 E	Sulfate, Total	SM	TAL CHI
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CHI
7470A	Preparation, Mercury	SW846	TAL CHI

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Powerton CCR FAB

Job ID: 500-217777-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-217777-1	MW-01	Water	06/07/22 14:32	06/08/22 17:43
500-217777-2	MW-02	Water	06/07/22 12:54	06/08/22 17:43
500-217777-3	MW-03	Water	06/07/22 12:00	06/08/22 17:43
500-217777-4	MW-04	Water	06/07/22 11:10	06/08/22 17:43
500-217777-5	MW-05	Water	06/07/22 10:18	06/08/22 17:43
500-217777-6	MW-10	Water	06/07/22 15:30	06/08/22 17:43
500-217777-7	Duplicate	Water	06/07/22 00:00	06/08/22 17:43

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Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Powerton CCR FAB

Job ID: 500-217777-1

Client Sample ID: MW-01

Lab Sample ID: 500-217777-1

Date Collected: 06/07/22 14:32

Matrix: Water

Date Received: 06/08/22 17:43

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		06/10/22 14:53	06/13/22 21:29	1
Arsenic	<0.0010		0.0010		mg/L		06/10/22 14:53	06/13/22 21:29	1
Barium	0.040		0.0025		mg/L		06/10/22 14:53	06/13/22 21:29	1
Beryllium	<0.0010		0.0010		mg/L		06/10/22 14:53	06/13/22 21:29	1
Boron	0.21		0.050		mg/L		06/10/22 14:53	06/14/22 15:22	1
Cadmium	<0.00050		0.00050		mg/L		06/10/22 14:53	06/13/22 21:29	1
Calcium	81		0.20		mg/L		06/10/22 14:53	06/13/22 21:29	1
Chromium	<0.0050		0.0050		mg/L		06/10/22 14:53	06/13/22 21:29	1
Cobalt	<0.0010		0.0010		mg/L		06/10/22 14:53	06/13/22 21:29	1
Lead	<0.00050		0.00050		mg/L		06/10/22 14:53	06/13/22 21:29	1
Lithium	<0.010		0.010		mg/L		06/10/22 14:53	06/13/22 21:29	1
Molybdenum	0.0057		0.0050		mg/L		06/10/22 14:53	06/13/22 21:29	1
Selenium	<0.0025		0.0025		mg/L		06/10/22 14:53	06/13/22 21:29	1
Thallium	<0.0020		0.0020		mg/L		06/10/22 14:53	06/13/22 21:29	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		06/17/22 10:15	06/20/22 09:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	430		10		mg/L			06/10/22 04:43	1
Chloride	51		4.0		mg/L			06/10/22 10:20	2
Fluoride	0.14		0.10		mg/L			06/13/22 15:38	1
Sulfate	27		10		mg/L			06/13/22 10:16	2

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Powerton CCR FAB

Job ID: 500-217777-1

Client Sample ID: MW-02

Lab Sample ID: 500-217777-2

Date Collected: 06/07/22 12:54

Matrix: Water

Date Received: 06/08/22 17:43

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		06/10/22 14:53	06/13/22 21:54	1
Arsenic	0.0016		0.0010		mg/L		06/10/22 14:53	06/13/22 21:54	1
Barium	0.064		0.0025		mg/L		06/10/22 14:53	06/13/22 21:54	1
Beryllium	<0.0010		0.0010		mg/L		06/10/22 14:53	06/13/22 21:54	1
Boron	0.23		0.050		mg/L		06/10/22 14:53	06/14/22 15:39	1
Cadmium	<0.00050		0.00050		mg/L		06/10/22 14:53	06/13/22 21:54	1
Calcium	86		0.20		mg/L		06/10/22 14:53	06/13/22 21:54	1
Chromium	<0.0050		0.0050		mg/L		06/10/22 14:53	06/13/22 21:54	1
Cobalt	<0.0010		0.0010		mg/L		06/10/22 14:53	06/13/22 21:54	1
Lead	<0.00050		0.00050		mg/L		06/10/22 14:53	06/13/22 21:54	1
Lithium	<0.010		0.010		mg/L		06/10/22 14:53	06/13/22 21:54	1
Molybdenum	0.0063		0.0050		mg/L		06/10/22 14:53	06/13/22 21:54	1
Selenium	<0.0025		0.0025		mg/L		06/10/22 14:53	06/13/22 21:54	1
Thallium	<0.0020		0.0020		mg/L		06/10/22 14:53	06/13/22 21:54	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		06/17/22 10:15	06/20/22 09:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	440		10		mg/L			06/10/22 04:45	1
Chloride	49		4.0		mg/L			06/10/22 10:20	2
Fluoride	0.16		0.10		mg/L			06/13/22 15:42	1
Sulfate	32		10		mg/L			06/13/22 10:16	2

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Powerton CCR FAB

Job ID: 500-217777-1

Client Sample ID: MW-03

Lab Sample ID: 500-217777-3

Date Collected: 06/07/22 12:00

Matrix: Water

Date Received: 06/08/22 17:43

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		06/10/22 14:53	06/13/22 21:57	1
Arsenic	0.0012		0.0010		mg/L		06/10/22 14:53	06/13/22 21:57	1
Barium	0.064		0.0025		mg/L		06/10/22 14:53	06/13/22 21:57	1
Beryllium	<0.0010		0.0010		mg/L		06/10/22 14:53	06/13/22 21:57	1
Boron	0.37		0.050		mg/L		06/10/22 14:53	06/14/22 15:43	1
Cadmium	<0.00050		0.00050		mg/L		06/10/22 14:53	06/13/22 21:57	1
Calcium	79		0.20		mg/L		06/10/22 14:53	06/13/22 21:57	1
Chromium	<0.0050		0.0050		mg/L		06/10/22 14:53	06/13/22 21:57	1
Cobalt	<0.0010		0.0010		mg/L		06/10/22 14:53	06/13/22 21:57	1
Lead	<0.00050		0.00050		mg/L		06/10/22 14:53	06/13/22 21:57	1
Lithium	<0.010		0.010		mg/L		06/10/22 14:53	06/13/22 21:57	1
Molybdenum	<0.0050		0.0050		mg/L		06/10/22 14:53	06/13/22 21:57	1
Selenium	<0.0025		0.0025		mg/L		06/10/22 14:53	06/13/22 21:57	1
Thallium	<0.0020		0.0020		mg/L		06/10/22 14:53	06/13/22 21:57	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		06/17/22 10:15	06/20/22 09:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	370		10		mg/L			06/10/22 04:48	1
Chloride	45		4.0		mg/L			06/10/22 10:20	2
Fluoride	0.22		0.10		mg/L			06/13/22 15:45	1
Sulfate	47		10		mg/L			06/13/22 10:17	2

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Powerton CCR FAB

Job ID: 500-217777-1

Client Sample ID: MW-04
Date Collected: 06/07/22 11:10
Date Received: 06/08/22 17:43

Lab Sample ID: 500-217777-4
Matrix: Water

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		06/10/22 14:53	06/13/22 22:00	1
Arsenic	<0.0010		0.0010		mg/L		06/10/22 14:53	06/13/22 22:00	1
Barium	0.025		0.0025		mg/L		06/10/22 14:53	06/13/22 22:00	1
Beryllium	<0.0010		0.0010		mg/L		06/10/22 14:53	06/13/22 22:00	1
Boron	0.48		0.050		mg/L		06/10/22 14:53	06/14/22 15:46	1
Cadmium	<0.00050		0.00050		mg/L		06/10/22 14:53	06/13/22 22:00	1
Calcium	73		0.20		mg/L		06/10/22 14:53	06/13/22 22:00	1
Chromium	<0.0050		0.0050		mg/L		06/10/22 14:53	06/13/22 22:00	1
Cobalt	<0.0010		0.0010		mg/L		06/10/22 14:53	06/13/22 22:00	1
Lead	<0.00050		0.00050		mg/L		06/10/22 14:53	06/13/22 22:00	1
Lithium	<0.010		0.010		mg/L		06/10/22 14:53	06/13/22 22:00	1
Molybdenum	0.0051		0.0050		mg/L		06/10/22 14:53	06/13/22 22:00	1
Selenium	<0.0025		0.0025		mg/L		06/10/22 14:53	06/13/22 22:00	1
Thallium	<0.0020		0.0020		mg/L		06/10/22 14:53	06/13/22 22:00	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		06/17/22 10:15	06/20/22 09:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	320		10		mg/L			06/10/22 04:50	1
Chloride	43		4.0		mg/L			06/10/22 10:21	2
Fluoride	0.30		0.10		mg/L			06/13/22 15:48	1
Sulfate	30		10		mg/L			06/13/22 10:17	2

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Powerton CCR FAB

Job ID: 500-217777-1

Client Sample ID: MW-05

Lab Sample ID: 500-217777-5

Date Collected: 06/07/22 10:18

Matrix: Water

Date Received: 06/08/22 17:43

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		06/10/22 14:53	06/13/22 22:04	1
Arsenic	<0.0010		0.0010		mg/L		06/10/22 14:53	06/13/22 22:04	1
Barium	0.052		0.0025		mg/L		06/10/22 14:53	06/13/22 22:04	1
Beryllium	<0.0010		0.0010		mg/L		06/10/22 14:53	06/13/22 22:04	1
Boron	0.59		0.050		mg/L		06/10/22 14:53	06/14/22 15:56	1
Cadmium	<0.00050		0.00050		mg/L		06/10/22 14:53	06/13/22 22:04	1
Calcium	110		0.20		mg/L		06/10/22 14:53	06/13/22 22:04	1
Chromium	<0.0050		0.0050		mg/L		06/10/22 14:53	06/13/22 22:04	1
Cobalt	<0.0010		0.0010		mg/L		06/10/22 14:53	06/13/22 22:04	1
Lead	<0.00050		0.00050		mg/L		06/10/22 14:53	06/13/22 22:04	1
Lithium	<0.010		0.010		mg/L		06/10/22 14:53	06/13/22 22:04	1
Molybdenum	<0.0050		0.0050		mg/L		06/10/22 14:53	06/13/22 22:04	1
Selenium	<0.0025		0.0025		mg/L		06/10/22 14:53	06/13/22 22:04	1
Thallium	<0.0020		0.0020		mg/L		06/10/22 14:53	06/13/22 22:04	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00034		0.00020		mg/L		06/17/22 10:15	06/20/22 09:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	650		10		mg/L			06/10/22 04:53	1
Chloride	58		4.0		mg/L			06/10/22 10:37	2
Fluoride	0.27		0.10		mg/L			06/13/22 15:51	1
Sulfate	120		25		mg/L			06/13/22 10:17	5

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Powerton CCR FAB

Job ID: 500-217777-1

Client Sample ID: MW-10
Date Collected: 06/07/22 15:30
Date Received: 06/08/22 17:43

Lab Sample ID: 500-217777-6
Matrix: Water

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		06/10/22 14:53	06/13/22 22:07	1
Arsenic	0.0011		0.0010		mg/L		06/10/22 14:53	06/13/22 22:07	1
Barium	0.18		0.0025		mg/L		06/10/22 14:53	06/13/22 22:07	1
Beryllium	<0.0010		0.0010		mg/L		06/10/22 14:53	06/13/22 22:07	1
Boron	0.43		0.050		mg/L		06/10/22 14:53	06/14/22 15:59	1
Cadmium	<0.00050		0.00050		mg/L		06/10/22 14:53	06/13/22 22:07	1
Calcium	85		0.20		mg/L		06/10/22 14:53	06/13/22 22:07	1
Chromium	<0.0050		0.0050		mg/L		06/10/22 14:53	06/13/22 22:07	1
Cobalt	0.0028		0.0010		mg/L		06/10/22 14:53	06/13/22 22:07	1
Lead	<0.00050		0.00050		mg/L		06/10/22 14:53	06/13/22 22:07	1
Lithium	<0.010		0.010		mg/L		06/10/22 14:53	06/13/22 22:07	1
Molybdenum	<0.0050		0.0050		mg/L		06/10/22 14:53	06/13/22 22:07	1
Selenium	0.0049		0.0025		mg/L		06/10/22 14:53	06/13/22 22:07	1
Thallium	<0.0020		0.0020		mg/L		06/10/22 14:53	06/13/22 22:07	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		06/17/22 10:15	06/20/22 09:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	390		10		mg/L			06/10/22 04:56	1
Chloride	44		4.0		mg/L			06/10/22 10:37	2
Fluoride	0.21		0.10		mg/L			06/13/22 16:06	1
Sulfate	38		10		mg/L			06/13/22 10:18	2

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Powerton CCR FAB

Job ID: 500-217777-1

Client Sample ID: Duplicate

Lab Sample ID: 500-217777-7

Date Collected: 06/07/22 00:00

Matrix: Water

Date Received: 06/08/22 17:43

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		06/10/22 14:53	06/13/22 22:11	1
Arsenic	0.0016		0.0010		mg/L		06/10/22 14:53	06/13/22 22:11	1
Barium	0.063		0.0025		mg/L		06/10/22 14:53	06/13/22 22:11	1
Beryllium	<0.0010		0.0010		mg/L		06/10/22 14:53	06/13/22 22:11	1
Boron	0.23		0.050		mg/L		06/10/22 14:53	06/14/22 16:03	1
Cadmium	<0.00050		0.00050		mg/L		06/10/22 14:53	06/13/22 22:11	1
Calcium	86		0.20		mg/L		06/10/22 14:53	06/13/22 22:11	1
Chromium	<0.0050		0.0050		mg/L		06/10/22 14:53	06/13/22 22:11	1
Cobalt	<0.0010		0.0010		mg/L		06/10/22 14:53	06/13/22 22:11	1
Lead	<0.00050		0.00050		mg/L		06/10/22 14:53	06/13/22 22:11	1
Lithium	<0.010		0.010		mg/L		06/10/22 14:53	06/13/22 22:11	1
Molybdenum	0.0063		0.0050		mg/L		06/10/22 14:53	06/13/22 22:11	1
Selenium	<0.0025		0.0025		mg/L		06/10/22 14:53	06/13/22 22:11	1
Thallium	<0.0020		0.0020		mg/L		06/10/22 14:53	06/13/22 22:11	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		06/17/22 10:15	06/20/22 09:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	430		10		mg/L			06/10/22 04:58	1
Chloride	52		10		mg/L			06/10/22 10:37	5
Fluoride	0.16		0.10		mg/L			06/20/22 12:46	1
Sulfate	27		25		mg/L			06/13/22 10:18	5

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Powerton CCR FAB

Job ID: 500-217777-1

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Powerton CCR FAB

Job ID: 500-217777-1

Metals

Prep Batch: 660775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-217777-1	MW-01	Total Recoverable	Water	3005A	
500-217777-2	MW-02	Total Recoverable	Water	3005A	
500-217777-3	MW-03	Total Recoverable	Water	3005A	
500-217777-4	MW-04	Total Recoverable	Water	3005A	
500-217777-5	MW-05	Total Recoverable	Water	3005A	
500-217777-6	MW-10	Total Recoverable	Water	3005A	
500-217777-7	Duplicate	Total Recoverable	Water	3005A	
MB 500-660775/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-660775/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
500-217777-1 MS	MW-01	Total Recoverable	Water	3005A	
500-217777-1 MSD	MW-01	Total Recoverable	Water	3005A	
500-217777-1 DU	MW-01	Total Recoverable	Water	3005A	

Analysis Batch: 661121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-217777-1	MW-01	Total Recoverable	Water	6020A	660775
500-217777-2	MW-02	Total Recoverable	Water	6020A	660775
500-217777-3	MW-03	Total Recoverable	Water	6020A	660775
500-217777-4	MW-04	Total Recoverable	Water	6020A	660775
500-217777-5	MW-05	Total Recoverable	Water	6020A	660775
500-217777-6	MW-10	Total Recoverable	Water	6020A	660775
500-217777-7	Duplicate	Total Recoverable	Water	6020A	660775
MB 500-660775/1-A	Method Blank	Total Recoverable	Water	6020A	660775
LCS 500-660775/2-A	Lab Control Sample	Total Recoverable	Water	6020A	660775
500-217777-1 MS	MW-01	Total Recoverable	Water	6020A	660775
500-217777-1 MSD	MW-01	Total Recoverable	Water	6020A	660775
500-217777-1 DU	MW-01	Total Recoverable	Water	6020A	660775

Analysis Batch: 661300

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-217777-1	MW-01	Total Recoverable	Water	6020A	660775
500-217777-2	MW-02	Total Recoverable	Water	6020A	660775
500-217777-3	MW-03	Total Recoverable	Water	6020A	660775
500-217777-4	MW-04	Total Recoverable	Water	6020A	660775
500-217777-5	MW-05	Total Recoverable	Water	6020A	660775
500-217777-6	MW-10	Total Recoverable	Water	6020A	660775
500-217777-7	Duplicate	Total Recoverable	Water	6020A	660775
MB 500-660775/1-A	Method Blank	Total Recoverable	Water	6020A	660775
LCS 500-660775/2-A	Lab Control Sample	Total Recoverable	Water	6020A	660775
500-217777-1 MS	MW-01	Total Recoverable	Water	6020A	660775
500-217777-1 MSD	MW-01	Total Recoverable	Water	6020A	660775
500-217777-1 DU	MW-01	Total Recoverable	Water	6020A	660775

Prep Batch: 661703

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-217777-1	MW-01	Total/NA	Water	7470A	
500-217777-2	MW-02	Total/NA	Water	7470A	
500-217777-3	MW-03	Total/NA	Water	7470A	
500-217777-4	MW-04	Total/NA	Water	7470A	
500-217777-5	MW-05	Total/NA	Water	7470A	
500-217777-6	MW-10	Total/NA	Water	7470A	

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QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Powerton CCR FAB

Job ID: 500-217777-1

Metals (Continued)

Prep Batch: 661703 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-217777-7	Duplicate	Total/NA	Water	7470A	
MB 500-661703/13-A	Method Blank	Total/NA	Water	7470A	
LCS 500-661703/12-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 662002

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-217777-1	MW-01	Total/NA	Water	7470A	661703
500-217777-2	MW-02	Total/NA	Water	7470A	661703
500-217777-3	MW-03	Total/NA	Water	7470A	661703
500-217777-4	MW-04	Total/NA	Water	7470A	661703
500-217777-5	MW-05	Total/NA	Water	7470A	661703
500-217777-6	MW-10	Total/NA	Water	7470A	661703
500-217777-7	Duplicate	Total/NA	Water	7470A	661703
MB 500-661703/13-A	Method Blank	Total/NA	Water	7470A	661703
LCS 500-661703/12-A	Lab Control Sample	Total/NA	Water	7470A	661703

General Chemistry

Analysis Batch: 660651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-217777-1	MW-01	Total/NA	Water	SM 2540C	
500-217777-2	MW-02	Total/NA	Water	SM 2540C	
500-217777-3	MW-03	Total/NA	Water	SM 2540C	
500-217777-4	MW-04	Total/NA	Water	SM 2540C	
500-217777-5	MW-05	Total/NA	Water	SM 2540C	
500-217777-6	MW-10	Total/NA	Water	SM 2540C	
500-217777-7	Duplicate	Total/NA	Water	SM 2540C	
MB 500-660651/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-660651/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 660740

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-217777-1	MW-01	Total/NA	Water	SM 4500 CI- E	
500-217777-2	MW-02	Total/NA	Water	SM 4500 CI- E	
500-217777-3	MW-03	Total/NA	Water	SM 4500 CI- E	
500-217777-4	MW-04	Total/NA	Water	SM 4500 CI- E	
500-217777-5	MW-05	Total/NA	Water	SM 4500 CI- E	
500-217777-6	MW-10	Total/NA	Water	SM 4500 CI- E	
500-217777-7	Duplicate	Total/NA	Water	SM 4500 CI- E	
MB 500-660740/64	Method Blank	Total/NA	Water	SM 4500 CI- E	
LCS 500-660740/65	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	

Analysis Batch: 660955

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-217777-1	MW-01	Total/NA	Water	SM 4500 SO4 E	
500-217777-2	MW-02	Total/NA	Water	SM 4500 SO4 E	
500-217777-3	MW-03	Total/NA	Water	SM 4500 SO4 E	
500-217777-4	MW-04	Total/NA	Water	SM 4500 SO4 E	
500-217777-5	MW-05	Total/NA	Water	SM 4500 SO4 E	
500-217777-6	MW-10	Total/NA	Water	SM 4500 SO4 E	
500-217777-7	Duplicate	Total/NA	Water	SM 4500 SO4 E	

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QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Powerton CCR FAB

Job ID: 500-217777-1

General Chemistry (Continued)

Analysis Batch: 660955 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-660955/55	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-660955/56	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 661064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-217777-1	MW-01	Total/NA	Water	SM 4500 F C	
500-217777-2	MW-02	Total/NA	Water	SM 4500 F C	
500-217777-3	MW-03	Total/NA	Water	SM 4500 F C	
500-217777-4	MW-04	Total/NA	Water	SM 4500 F C	
500-217777-5	MW-05	Total/NA	Water	SM 4500 F C	
500-217777-6	MW-10	Total/NA	Water	SM 4500 F C	
MB 500-661064/31	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-661064/32	Lab Control Sample	Total/NA	Water	SM 4500 F C	

Analysis Batch: 662032

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-217777-7	Duplicate	Total/NA	Water	SM 4500 F C	
MB 500-662032/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-662032/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Powerton CCR FAB

Job ID: 500-217777-1

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-660775/1-A
Matrix: Water
Analysis Batch: 661121

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 660775

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.0030		0.0030		mg/L		06/10/22 14:53	06/13/22 21:05	1
Arsenic	<0.0010		0.0010		mg/L		06/10/22 14:53	06/13/22 21:05	1
Barium	<0.0025		0.0025		mg/L		06/10/22 14:53	06/13/22 21:05	1
Beryllium	<0.0010		0.0010		mg/L		06/10/22 14:53	06/13/22 21:05	1
Cadmium	<0.00050		0.00050		mg/L		06/10/22 14:53	06/13/22 21:05	1
Calcium	<0.20		0.20		mg/L		06/10/22 14:53	06/13/22 21:05	1
Chromium	<0.0050		0.0050		mg/L		06/10/22 14:53	06/13/22 21:05	1
Cobalt	<0.0010		0.0010		mg/L		06/10/22 14:53	06/13/22 21:05	1
Lead	<0.00050		0.00050		mg/L		06/10/22 14:53	06/13/22 21:05	1
Lithium	<0.010		0.010		mg/L		06/10/22 14:53	06/13/22 21:05	1
Molybdenum	<0.0050		0.0050		mg/L		06/10/22 14:53	06/13/22 21:05	1
Selenium	<0.0025		0.0025		mg/L		06/10/22 14:53	06/13/22 21:05	1
Thallium	<0.0020		0.0020		mg/L		06/10/22 14:53	06/13/22 21:05	1

Lab Sample ID: MB 500-660775/1-A
Matrix: Water
Analysis Batch: 661300

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 660775

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Boron	<0.050		0.050		mg/L		06/10/22 14:53	06/14/22 15:16	1

Lab Sample ID: LCS 500-660775/2-A
Matrix: Water
Analysis Batch: 661121

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 660775

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.100	0.0937		mg/L		94	80 - 120
Barium	0.500	0.495		mg/L		99	80 - 120
Beryllium	0.0500	0.0475		mg/L		95	80 - 120
Cadmium	0.0500	0.0477		mg/L		95	80 - 120
Calcium	10.0	9.68		mg/L		97	80 - 120
Chromium	0.200	0.195		mg/L		98	80 - 120
Cobalt	0.500	0.492		mg/L		98	80 - 120
Lead	0.100	0.104		mg/L		104	80 - 120
Lithium	0.100	0.101		mg/L		101	80 - 120
Molybdenum	1.00	0.911		mg/L		91	80 - 120
Selenium	0.100	0.0950		mg/L		95	80 - 120
Thallium	0.100	0.105		mg/L		105	80 - 120

Lab Sample ID: LCS 500-660775/2-A
Matrix: Water
Analysis Batch: 661300

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 660775

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Powerton CCR FAB

Job ID: 500-217777-1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-217777-1 MS
Matrix: Water
Analysis Batch: 661121

Client Sample ID: MW-01
Prep Type: Total Recoverable
Prep Batch: 660775

Analyte	Sample	Sample Qualifier	Spike Added	MS	MS	Unit	D	%Rec	%Rec	
	Result			Result	Qualifier				Limits	Limits
Antimony	<0.0030		0.500	0.503		mg/L		101	75 - 125	
Arsenic	<0.0010		0.100	0.0987		mg/L		98	75 - 125	
Barium	0.040		0.500	0.540		mg/L		100	75 - 125	
Beryllium	<0.0010		0.0500	0.0450		mg/L		90	75 - 125	
Cadmium	<0.00050		0.0500	0.0482		mg/L		96	75 - 125	
Calcium	81		10.0	89.0	4	mg/L		77	75 - 125	
Chromium	<0.0050		0.200	0.196		mg/L		98	75 - 125	
Cobalt	<0.0010		0.500	0.479		mg/L		96	75 - 125	
Lead	<0.00050		0.100	0.104		mg/L		104	75 - 125	
Lithium	<0.010		0.100	0.104		mg/L		104	75 - 125	
Molybdenum	0.0057		1.00	0.954		mg/L		95	75 - 125	
Selenium	<0.0025		0.100	0.101		mg/L		99	75 - 125	
Thallium	<0.0020		0.100	0.105		mg/L		105	75 - 125	

Lab Sample ID: 500-217777-1 MS
Matrix: Water
Analysis Batch: 661300

Client Sample ID: MW-01
Prep Type: Total Recoverable
Prep Batch: 660775

Analyte	Sample	Sample Qualifier	Spike Added	MS	MS	Unit	D	%Rec	%Rec	
	Result			Result	Qualifier				Limits	Limits
Boron	0.21		1.00	1.06		mg/L		85	75 - 125	

Lab Sample ID: 500-217777-1 MSD
Matrix: Water
Analysis Batch: 661121

Client Sample ID: MW-01
Prep Type: Total Recoverable
Prep Batch: 660775

Analyte	Sample	Sample Qualifier	Spike Added	MSD	MSD	Unit	D	%Rec	%Rec		RPD	
	Result			Result	Qualifier				Limits	Limits	RPD	Limit
Antimony	<0.0030		0.500	0.508		mg/L		102	75 - 125	1	20	
Arsenic	<0.0010		0.100	0.0994		mg/L		99	75 - 125	1	20	
Barium	0.040		0.500	0.540		mg/L		100	75 - 125	0	20	
Beryllium	<0.0010		0.0500	0.0466		mg/L		93	75 - 125	3	20	
Cadmium	<0.00050		0.0500	0.0494		mg/L		99	75 - 125	2	20	
Calcium	81		10.0	89.1	4	mg/L		78	75 - 125	0	20	
Chromium	<0.0050		0.200	0.199		mg/L		99	75 - 125	1	20	
Cobalt	<0.0010		0.500	0.482		mg/L		96	75 - 125	1	20	
Lead	<0.00050		0.100	0.105		mg/L		105	75 - 125	1	20	
Lithium	<0.010		0.100	0.105		mg/L		105	75 - 125	1	20	
Molybdenum	0.0057		1.00	0.969		mg/L		96	75 - 125	2	20	
Selenium	<0.0025		0.100	0.101		mg/L		99	75 - 125	1	20	
Thallium	<0.0020		0.100	0.106		mg/L		106	75 - 125	1	20	

Lab Sample ID: 500-217777-1 MSD
Matrix: Water
Analysis Batch: 661300

Client Sample ID: MW-01
Prep Type: Total Recoverable
Prep Batch: 660775

Analyte	Sample	Sample Qualifier	Spike Added	MSD	MSD	Unit	D	%Rec	%Rec		RPD	
	Result			Result	Qualifier				Limits	Limits	RPD	Limit
Boron	0.21		1.00	1.07		mg/L		86	75 - 125	1	20	

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Powerton CCR FAB

Job ID: 500-217777-1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-217777-1 DU
Matrix: Water
Analysis Batch: 661121

Client Sample ID: MW-01
Prep Type: Total Recoverable
Prep Batch: 660775

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Antimony	<0.0030		<0.0030		mg/L		NC	20
Arsenic	<0.0010		<0.0010		mg/L		NC	20
Barium	0.040		0.0401		mg/L		0.5	20
Beryllium	<0.0010		<0.0010		mg/L		NC	20
Cadmium	<0.00050		<0.00050		mg/L		NC	20
Calcium	81		81.6		mg/L		0.3	20
Chromium	<0.0050		<0.0050		mg/L		NC	20
Cobalt	<0.0010		<0.0010		mg/L		NC	20
Lead	<0.00050		<0.00050		mg/L		NC	20
Lithium	<0.010		<0.010		mg/L		NC	20
Molybdenum	0.0057		0.00559		mg/L		1	20
Selenium	<0.0025		<0.0025		mg/L		NC	20
Thallium	<0.0020		<0.0020		mg/L		NC	20

Lab Sample ID: 500-217777-1 DU
Matrix: Water
Analysis Batch: 661300

Client Sample ID: MW-01
Prep Type: Total Recoverable
Prep Batch: 660775

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Boron	0.21		0.206		mg/L		3	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-661703/13-A
Matrix: Water
Analysis Batch: 662002

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 661703

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.00020		0.00020		mg/L		06/17/22 10:15	06/20/22 09:16	1

Lab Sample ID: LCS 500-661703/12-A
Matrix: Water
Analysis Batch: 662002

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 661703

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 500-660651/1
Matrix: Water
Analysis Batch: 660651

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Total Dissolved Solids	<10		10		mg/L			06/10/22 04:25	1

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QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Powerton CCR FAB

Job ID: 500-217777-1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 500-660651/2
Matrix: Water
Analysis Batch: 660651

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	250	268		mg/L		107	80 - 120

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-660740/64
Matrix: Water
Analysis Batch: 660740

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			06/10/22 10:16	1

Lab Sample ID: LCS 500-660740/65
Matrix: Water
Analysis Batch: 660740

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	20.0	20.5		mg/L		103	85 - 115

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-661064/31
Matrix: Water
Analysis Batch: 661064

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			06/13/22 14:55	1

Lab Sample ID: LCS 500-661064/32
Matrix: Water
Analysis Batch: 661064

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	10.0	10.4		mg/L		104	90 - 119

Lab Sample ID: MB 500-662032/3
Matrix: Water
Analysis Batch: 662032

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			06/20/22 11:55	1

Lab Sample ID: LCS 500-662032/4
Matrix: Water
Analysis Batch: 662032

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	10.0	10.7		mg/L		107	90 - 119

QC Sample Results

Client: KPRG and Associates, Inc.
 Project/Site: Powerton CCR FAB

Job ID: 500-217777-1

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-660955/55
Matrix: Water
Analysis Batch: 660955

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			06/13/22 09:56	1

Lab Sample ID: LCS 500-660955/56
Matrix: Water
Analysis Batch: 660955

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	20.0	22.0		mg/L		110	88 - 123



Eurofins Chicago

2417 Bond Street
University Park IL 60484
Phone 708-534 5200 Fax 708-534-5211

Chain of Custody Record

MKE 232

eurofins En on sti

Client Information, Analysis Requested, Sample Identification, Preservation Codes, Possible Hazard Identification, Sample Disposal, Relinquished by, Custody Seals Intact. Includes handwritten entries for sample IDs (MW-01 to MW-06, Duplicate FAB) and dates (6/7/22).

ORIGIN ID:PIAA (262) 622-1143
MITCHEL DOLAN
KPRG AND ASSOCIATES
414 PLAZA DR STE 106

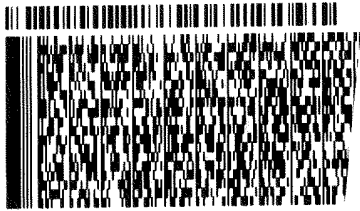
WESTMONT, IL 60559
UNITED STATES US

TO

TEST AMERICA
2417 BOND ST

UNIVERSITY PARK IL

(000) 000-0000 REF:
INU:
PO:



1 of 9
TRK# 2740 5878 9062
0201
MASTER

UF JOTA



PK STE 106
WESTMONT, IL 60559
UNITED STATES US

ACTWT: 46.40 LB
CAD: 6994780/SSFE2321
DIMS: 24x17x12 IN
BILL THIRD PARTY

TO

TEST AMERICA
2417 BOND ST

UNIVERSITY PARK IL 60484

(000) 000-0000 REF:
INU:
PO:



FedEx
Express



6 of 9
MPS# 2740 5878 9110
0263
Mstr# 2740 5878 9062

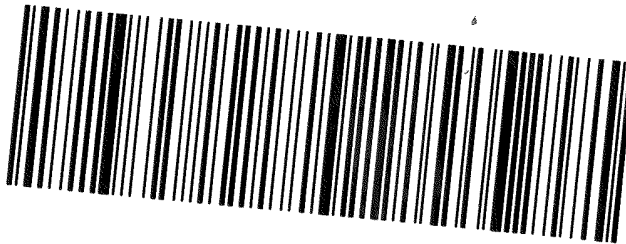
UF JOTA

0201

WED - 08 JUN 4:30P
STANDARD OVERNIGHT

AHS
60484

IL-US ORD



PIAA (262) 622-1143
DOLAN
KPRG AND ASSOCIATES
414 PLAZA DR STE 106

SHIP DATE: 07JUN22
ACTWT: 46.40 LB
CAD: 6994780/SSFE2321
DIMS: 24x17x12 IN
BILL THIRD PARTY

TO

TEST AMERICA
2417 BOND ST

UNIVERSITY PARK IL 60484

(000) 000-0000 REF:
INU:
PO:

500-217777 Wayb.



FedEx
Express



3 of 9
MPS# 2740 5878 9084
0263
Mstr# 2740 5878 9062

UF JOTA

0201

WED - 08 JUN 4:30P
STANDARD OVERNIGHT

AHS
60484

IL-US ORD



Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-217777-1

Login Number: 217777

List Number: 1

Creator: Scott, Sherri L

List Source: Eurofins Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.9,1.5,0.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Powerton CCR FAB

Job ID: 500-217777-1

Client Sample ID: MW-01
Date Collected: 06/07/22 14:32
Date Received: 06/08/22 17:43

Lab Sample ID: 500-217777-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			660775	06/10/22 14:53	LMB	TAL CHI
Total Recoverable	Analysis	6020A		1	661121	06/13/22 21:29	FXG	TAL CHI
Total Recoverable	Prep	3005A			660775	06/10/22 14:53	LMB	TAL CHI
Total Recoverable	Analysis	6020A		1	661300	06/14/22 15:22	FXG	TAL CHI
Total/NA	Prep	7470A			661703	06/17/22 10:15	MJG	TAL CHI
Total/NA	Analysis	7470A		1	662002	06/20/22 09:18	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	660651	06/10/22 04:43	CLB	TAL CHI
Total/NA	Analysis	SM 4500 CI- E		2	660740	06/10/22 10:20	LP	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	661064	06/13/22 15:38	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		2	660955	06/13/22 10:16	LP	TAL CHI

Client Sample ID: MW-02
Date Collected: 06/07/22 12:54
Date Received: 06/08/22 17:43

Lab Sample ID: 500-217777-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			660775	06/10/22 14:53	LMB	TAL CHI
Total Recoverable	Analysis	6020A		1	661121	06/13/22 21:54	FXG	TAL CHI
Total Recoverable	Prep	3005A			660775	06/10/22 14:53	LMB	TAL CHI
Total Recoverable	Analysis	6020A		1	661300	06/14/22 15:39	FXG	TAL CHI
Total/NA	Prep	7470A			661703	06/17/22 10:15	MJG	TAL CHI
Total/NA	Analysis	7470A		1	662002	06/20/22 09:21	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	660651	06/10/22 04:45	CLB	TAL CHI
Total/NA	Analysis	SM 4500 CI- E		2	660740	06/10/22 10:20	LP	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	661064	06/13/22 15:42	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		2	660955	06/13/22 10:16	LP	TAL CHI

Client Sample ID: MW-03
Date Collected: 06/07/22 12:00
Date Received: 06/08/22 17:43

Lab Sample ID: 500-217777-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			660775	06/10/22 14:53	LMB	TAL CHI
Total Recoverable	Analysis	6020A		1	661121	06/13/22 21:57	FXG	TAL CHI
Total Recoverable	Prep	3005A			660775	06/10/22 14:53	LMB	TAL CHI
Total Recoverable	Analysis	6020A		1	661300	06/14/22 15:43	FXG	TAL CHI
Total/NA	Prep	7470A			661703	06/17/22 10:15	MJG	TAL CHI
Total/NA	Analysis	7470A		1	662002	06/20/22 09:23	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	660651	06/10/22 04:48	CLB	TAL CHI
Total/NA	Analysis	SM 4500 CI- E		2	660740	06/10/22 10:20	LP	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	661064	06/13/22 15:45	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		2	660955	06/13/22 10:17	LP	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Powerton CCR FAB

Job ID: 500-217777-1

Client Sample ID: MW-04
Date Collected: 06/07/22 11:10
Date Received: 06/08/22 17:43

Lab Sample ID: 500-217777-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			660775	06/10/22 14:53	LMB	TAL CHI
Total Recoverable	Analysis	6020A		1	661121	06/13/22 22:00	FXG	TAL CHI
Total Recoverable	Prep	3005A			660775	06/10/22 14:53	LMB	TAL CHI
Total Recoverable	Analysis	6020A		1	661300	06/14/22 15:46	FXG	TAL CHI
Total/NA	Prep	7470A			661703	06/17/22 10:15	MJG	TAL CHI
Total/NA	Analysis	7470A		1	662002	06/20/22 09:25	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	660651	06/10/22 04:50	CLB	TAL CHI
Total/NA	Analysis	SM 4500 CI- E		2	660740	06/10/22 10:21	LP	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	661064	06/13/22 15:48	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		2	660955	06/13/22 10:17	LP	TAL CHI

Client Sample ID: MW-05
Date Collected: 06/07/22 10:18
Date Received: 06/08/22 17:43

Lab Sample ID: 500-217777-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			660775	06/10/22 14:53	LMB	TAL CHI
Total Recoverable	Analysis	6020A		1	661121	06/13/22 22:04	FXG	TAL CHI
Total Recoverable	Prep	3005A			660775	06/10/22 14:53	LMB	TAL CHI
Total Recoverable	Analysis	6020A		1	661300	06/14/22 15:56	FXG	TAL CHI
Total/NA	Prep	7470A			661703	06/17/22 10:15	MJG	TAL CHI
Total/NA	Analysis	7470A		1	662002	06/20/22 09:27	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	660651	06/10/22 04:53	CLB	TAL CHI
Total/NA	Analysis	SM 4500 CI- E		2	660740	06/10/22 10:37	LP	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	661064	06/13/22 15:51	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	660955	06/13/22 10:17	LP	TAL CHI

Client Sample ID: MW-10
Date Collected: 06/07/22 15:30
Date Received: 06/08/22 17:43

Lab Sample ID: 500-217777-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			660775	06/10/22 14:53	LMB	TAL CHI
Total Recoverable	Analysis	6020A		1	661121	06/13/22 22:07	FXG	TAL CHI
Total Recoverable	Prep	3005A			660775	06/10/22 14:53	LMB	TAL CHI
Total Recoverable	Analysis	6020A		1	661300	06/14/22 15:59	FXG	TAL CHI
Total/NA	Prep	7470A			661703	06/17/22 10:15	MJG	TAL CHI
Total/NA	Analysis	7470A		1	662002	06/20/22 09:29	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	660651	06/10/22 04:56	CLB	TAL CHI
Total/NA	Analysis	SM 4500 CI- E		2	660740	06/10/22 10:37	LP	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	661064	06/13/22 16:06	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		2	660955	06/13/22 10:18	LP	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Powerton CCR FAB

Job ID: 500-217777-1

Client Sample ID: Duplicate

Lab Sample ID: 500-217777-7

Date Collected: 06/07/22 00:00

Matrix: Water

Date Received: 06/08/22 17:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			660775	06/10/22 14:53	LMB	TAL CHI
Total Recoverable	Analysis	6020A		1	661121	06/13/22 22:11	FXG	TAL CHI
Total Recoverable	Prep	3005A			660775	06/10/22 14:53	LMB	TAL CHI
Total Recoverable	Analysis	6020A		1	661300	06/14/22 16:03	FXG	TAL CHI
Total/NA	Prep	7470A			661703	06/17/22 10:15	MJG	TAL CHI
Total/NA	Analysis	7470A		1	662002	06/20/22 09:31	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	660651	06/10/22 04:58	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	660740	06/10/22 10:37	LP	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	662032	06/20/22 12:46	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	660955	06/13/22 10:18	LP	TAL CHI

Laboratory References:

TAL CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Accreditation/Certification Summary

Client: KPRG and Associates, Inc.
Project/Site: Powerton CCR FAB

Job ID: 500-217777-1

Laboratory: Eurofins Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-30-23

1

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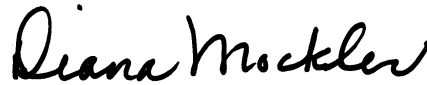
ANALYTICAL REPORT

Eurofins Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-217777-2
Client Project/Site: Powerton CCR FAB (RAD)

For:
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 1A
Brookfield, Wisconsin 53005

Attn: Richard Gnat



Authorized for release by:
7/11/2022 11:07:39 AM

Diana Mockler, Project Manager I
(219)252-7570
Diana.Mockler@et.eurofinsus.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Method Summary	4
Sample Summary	5
Client Sample Results	6
Definitions	13
QC Association	14
QC Sample Results	15
Chain of Custody	17
Receipt Checklists	20
Chronicle	22
Certification Summary	24
Tracer Carrier Summary	25



Case Narrative

Client: KPRG and Associates, Inc.
Project/Site: Powerton CCR FAB (RAD)

Job ID: 500-217777-2

Job ID: 500-217777-2

Laboratory: Eurofins Chicago

Narrative

Job Narrative 500-217777-2

Comments

No additional comments.

Receipt

The samples were received on 6/8/2022 5:43 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.9° C, 0.9° C and 1.5° C.

RAD

Method 903.0: Radium-226 batch 570311

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

MW-01 (500-217777-1), MW-02 (500-217777-2), MW-03 (500-217777-3), MW-04 (500-217777-4), MW-05 (500-217777-5), MW-10 (500-217777-6), Duplicate (500-217777-7), (LCS 160-570311/2-A), (MB 160-570311/1-A) and (500-217777-D-1-A DU)

Methods 904.0, 9320, SM7110C, ST-RC-0058: Radium-228 batch 570316

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

MW-01 (500-217777-1), MW-02 (500-217777-2), MW-03 (500-217777-3), MW-04 (500-217777-4), MW-05 (500-217777-5), MW-10 (500-217777-6), Duplicate (500-217777-7), (CCB 160-571384/49), (CCB 160-571384/52), (CCB 160-571384/57), (CCB 160-571384/58), (CCB 160-571384/61), (CCB 160-571384/62), (CCB 160-571384/63), (CCB 160-571384/64), (CCB 160-571384/65), (CCB 160-571384/66), (CCVA 160-571384/1), (CCVA 160-571384/12), (CCVA 160-571384/2), (CCVA 160-571384/33), (CCVA 160-571384/34), (CCVA 160-571384/37), (CCVA 160-571384/38), (CCVA 160-571384/39), (CCVA 160-571384/40), (CCVA 160-571384/9), (CCVB 160-571384/17), (CCVB 160-571384/18), (CCVB 160-571384/21), (CCVB 160-571384/22), (CCVB 160-571384/23), (CCVB 160-571384/24), (CCVB 160-571384/25), (CCVB 160-571384/28), (CCVB 160-571384/41), (CCVB 160-571384/42), (LCS 160-570316/2-A), (MB 160-570316/1-A) and (500-217777-D-1-B DU)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Powerton CCR FAB (RAD)

Job ID: 500-217777-2

Method	Method Description	Protocol	Laboratory
903.0	Radium-226 (GFPC)	EPA	TAL SL
904.0	Radium-228 (GFPC)	EPA	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Powerton CCR FAB (RAD)

Job ID: 500-217777-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-217777-1	MW-01	Water	06/07/22 14:32	06/08/22 17:43
500-217777-2	MW-02	Water	06/07/22 12:54	06/08/22 17:43
500-217777-3	MW-03	Water	06/07/22 12:00	06/08/22 17:43
500-217777-4	MW-04	Water	06/07/22 11:10	06/08/22 17:43
500-217777-5	MW-05	Water	06/07/22 10:18	06/08/22 17:43
500-217777-6	MW-10	Water	06/07/22 15:30	06/08/22 17:43
500-217777-7	Duplicate	Water	06/07/22 00:00	06/08/22 17:43

- 1
- 2
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- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Client Sample Results

Client: KPRG and Associates, Inc.
 Project/Site: Powerton CCR FAB (RAD)

Job ID: 500-217777-2

Client Sample ID: MW-01

Lab Sample ID: 500-217777-1

Date Collected: 06/07/22 14:32

Matrix: Water

Date Received: 06/08/22 17:43

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0666	U	0.0566	0.0569	1.00	0.0825	pCi/L	06/16/22 14:09	07/08/22 11:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.3		40 - 110					06/16/22 14:09	07/08/22 11:40	1

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.464		0.289	0.292	1.00	0.417	pCi/L	06/16/22 14:40	06/23/22 12:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.3		40 - 110					06/16/22 14:40	06/23/22 12:07	1
Y Carrier	86.4		40 - 110					06/16/22 14:40	06/23/22 12:07	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.531		0.294	0.297	5.00	0.417	pCi/L		07/11/22 10:32	1

Client Sample Results

Client: KPRG and Associates, Inc.
 Project/Site: Powerton CCR FAB (RAD)

Job ID: 500-217777-2

Client Sample ID: MW-02
Date Collected: 06/07/22 12:54
Date Received: 06/08/22 17:43

Lab Sample ID: 500-217777-2
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0134	U	0.0608	0.0608	1.00	0.116	pCi/L	06/16/22 14:09	07/08/22 11:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.5		40 - 110					06/16/22 14:09	07/08/22 11:40	1

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.651		0.359	0.364	1.00	0.511	pCi/L	06/16/22 14:40	06/23/22 12:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.5		40 - 110					06/16/22 14:40	06/23/22 12:07	1
Y Carrier	85.2		40 - 110					06/16/22 14:40	06/23/22 12:07	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.665		0.364	0.369	5.00	0.511	pCi/L		07/11/22 10:32	1

Client Sample Results

Client: KPRG and Associates, Inc.
 Project/Site: Powerton CCR FAB (RAD)

Job ID: 500-217777-2

Client Sample ID: MW-03

Lab Sample ID: 500-217777-3

Date Collected: 06/07/22 12:00

Matrix: Water

Date Received: 06/08/22 17:43

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0102	U	0.0505	0.0505	1.00	0.0999	pCi/L	06/16/22 14:09	07/08/22 11:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.0		40 - 110					06/16/22 14:09	07/08/22 11:40	1

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.841		0.397	0.405	1.00	0.543	pCi/L	06/16/22 14:40	06/23/22 12:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.0		40 - 110					06/16/22 14:40	06/23/22 12:07	1
Y Carrier	86.7		40 - 110					06/16/22 14:40	06/23/22 12:07	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.851		0.400	0.408	5.00	0.543	pCi/L		07/11/22 10:32	1

Client Sample Results

Client: KPRG and Associates, Inc.
 Project/Site: Powerton CCR FAB (RAD)

Job ID: 500-217777-2

Client Sample ID: MW-04
Date Collected: 06/07/22 11:10
Date Received: 06/08/22 17:43

Lab Sample ID: 500-217777-4
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0237	U	0.0500	0.0500	1.00	0.0915	pCi/L	06/16/22 14:09	07/08/22 11:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.3		40 - 110					06/16/22 14:09	07/08/22 11:40	1

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.327	U	0.299	0.301	1.00	0.473	pCi/L	06/16/22 14:40	06/23/22 12:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.3		40 - 110					06/16/22 14:40	06/23/22 12:07	1
Y Carrier	86.4		40 - 110					06/16/22 14:40	06/23/22 12:07	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.350	U	0.303	0.305	5.00	0.473	pCi/L		07/11/22 10:32	1

Client Sample Results

Client: KPRG and Associates, Inc.
 Project/Site: Powerton CCR FAB (RAD)

Job ID: 500-217777-2

Client Sample ID: MW-05

Lab Sample ID: 500-217777-5

Date Collected: 06/07/22 10:18

Matrix: Water

Date Received: 06/08/22 17:43

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0448	U	0.0534	0.0536	1.00	0.0871	pCi/L	06/16/22 14:09	07/08/22 13:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.8		40 - 110					06/16/22 14:09	07/08/22 13:57	1

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.176	U	0.275	0.275	1.00	0.468	pCi/L	06/16/22 14:40	06/23/22 12:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.8		40 - 110					06/16/22 14:40	06/23/22 12:08	1
Y Carrier	84.1		40 - 110					06/16/22 14:40	06/23/22 12:08	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.220	U	0.280	0.280	5.00	0.468	pCi/L		07/11/22 10:32	1

Client Sample Results

Client: KPRG and Associates, Inc.
 Project/Site: Powerton CCR FAB (RAD)

Job ID: 500-217777-2

Client Sample ID: MW-10

Lab Sample ID: 500-217777-6

Date Collected: 06/07/22 15:30

Matrix: Water

Date Received: 06/08/22 17:43

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.189		0.0883	0.0899	1.00	0.0996	pCi/L	06/16/22 14:09	07/08/22 13:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.5		40 - 110					06/16/22 14:09	07/08/22 13:57	1

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.498	U	0.364	0.367	1.00	0.552	pCi/L	06/16/22 14:40	06/23/22 12:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.5		40 - 110					06/16/22 14:40	06/23/22 12:08	1
Y Carrier	86.7		40 - 110					06/16/22 14:40	06/23/22 12:08	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.687		0.375	0.378	5.00	0.552	pCi/L		07/11/22 10:32	1

Client Sample Results

Client: KPRG and Associates, Inc.
 Project/Site: Powerton CCR FAB (RAD)

Job ID: 500-217777-2

Client Sample ID: Duplicate

Lab Sample ID: 500-217777-7

Date Collected: 06/07/22 00:00

Matrix: Water

Date Received: 06/08/22 17:43

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0509	U	0.0786	0.0788	1.00	0.136	pCi/L	06/16/22 14:09	07/08/22 13:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	54.0		40 - 110					06/16/22 14:09	07/08/22 13:57	1

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0755	U	0.437	0.437	1.00	0.801	pCi/L	06/16/22 14:40	06/23/22 12:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	54.0		40 - 110					06/16/22 14:40	06/23/22 12:08	1
Y Carrier	86.0		40 - 110					06/16/22 14:40	06/23/22 12:08	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.126	U	0.444	0.444	5.00	0.801	pCi/L		07/11/22 10:32	1

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Powerton CCR FAB (RAD)

Job ID: 500-217777-2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Powerton CCR FAB (RAD)

Job ID: 500-217777-2

Rad

Prep Batch: 570311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-217777-1	MW-01	Total/NA	Water	PrecSep-21	
500-217777-2	MW-02	Total/NA	Water	PrecSep-21	
500-217777-3	MW-03	Total/NA	Water	PrecSep-21	
500-217777-4	MW-04	Total/NA	Water	PrecSep-21	
500-217777-5	MW-05	Total/NA	Water	PrecSep-21	
500-217777-6	MW-10	Total/NA	Water	PrecSep-21	
500-217777-7	Duplicate	Total/NA	Water	PrecSep-21	
MB 160-570311/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-570311/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-217777-1 DU	MW-01	Total/NA	Water	PrecSep-21	

Prep Batch: 570316

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-217777-1	MW-01	Total/NA	Water	PrecSep_0	
500-217777-2	MW-02	Total/NA	Water	PrecSep_0	
500-217777-3	MW-03	Total/NA	Water	PrecSep_0	
500-217777-4	MW-04	Total/NA	Water	PrecSep_0	
500-217777-5	MW-05	Total/NA	Water	PrecSep_0	
500-217777-6	MW-10	Total/NA	Water	PrecSep_0	
500-217777-7	Duplicate	Total/NA	Water	PrecSep_0	
MB 160-570316/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-570316/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-217777-1 DU	MW-01	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Powerton CCR FAB (RAD)

Job ID: 500-217777-2

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-570311/1-A
Matrix: Water
Analysis Batch: 573267

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 570311

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.009749	U	0.0508	0.0508	1.00	0.0988	pCi/L	06/16/22 14:09	07/08/22 11:39	1
Carrier	MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	MB Qualifier		40 - 110						
Ba Carrier	93.3		40 - 110			06/16/22 14:09	07/08/22 11:39	1		

Lab Sample ID: LCS 160-570311/2-A
Matrix: Water
Analysis Batch: 573267

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 570311

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	9.944		1.03	1.00	0.0731	pCi/L	88	75 - 125
Carrier	LCS	LCS	Limits			Prepared	Analyzed	Dil Fac	
Ba Carrier	%Yield	Qualifier		40 - 110					
Ba Carrier	101		40 - 110						

Lab Sample ID: 500-217777-1 DU
Matrix: Water
Analysis Batch: 573267

Client Sample ID: MW-01
Prep Type: Total/NA
Prep Batch: 570311

Analyte	Sample		DU	DU	Total	RL	MDC	Unit	RER	RER
	Result	Sample Qual	Result	Qual	Uncert. (2σ+/-)					Limit
Radium-226	0.0666	U	-0.00340	U	0.0406	1.00	0.0890	pCi/L	0.72	1
Carrier	DU		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	DU Qualifier		40 - 110						
Ba Carrier	91.0		40 - 110							

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-570316/1-A
Matrix: Water
Analysis Batch: 571384

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 570316

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.3472	U	0.304	0.305	1.00	0.479	pCi/L	06/16/22 14:40	06/23/22 12:07	1
Carrier	MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	MB Qualifier		40 - 110						
Ba Carrier	93.3		40 - 110			06/16/22 14:40	06/23/22 12:07	1		
Y Carrier	MB		Limits			Prepared	Analyzed	Dil Fac		
Y Carrier	%Yield	MB Qualifier		40 - 110						
Y Carrier	86.4		40 - 110			06/16/22 14:40	06/23/22 12:07	1		

QC Sample Results

Client: KPRG and Associates, Inc.
 Project/Site: Powerton CCR FAB (RAD)

Job ID: 500-217777-2

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-570316/2-A
Matrix: Water
Analysis Batch: 571384

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 570316

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits																	
Radium-228	8.51	8.878		1.17	1.00	0.454	pCi/L	104	75 - 125																	
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">LCS</th> <th colspan="2">LCS</th> </tr> <tr> <th>Carrier</th> <th>%Yield</th> <th>Qualifier</th> <th>Limits</th> </tr> </thead> <tbody> <tr> <td>Ba Carrier</td> <td>101</td> <td></td> <td>40 - 110</td> </tr> <tr> <td>Y Carrier</td> <td>85.6</td> <td></td> <td>40 - 110</td> </tr> </tbody> </table>											LCS		LCS		Carrier	%Yield	Qualifier	Limits	Ba Carrier	101		40 - 110	Y Carrier	85.6		40 - 110
LCS		LCS																								
Carrier	%Yield	Qualifier	Limits																							
Ba Carrier	101		40 - 110																							
Y Carrier	85.6		40 - 110																							

Lab Sample ID: 500-217777-1 DU
Matrix: Water
Analysis Batch: 571384

Client Sample ID: MW-01
Prep Type: Total/NA
Prep Batch: 570316

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit																
										1																
Radium-228	0.464		0.7084		0.333	1.00	0.426	pCi/L	0.39	1																
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">DU</th> <th colspan="2">DU</th> </tr> <tr> <th>Carrier</th> <th>%Yield</th> <th>Qualifier</th> <th>Limits</th> </tr> </thead> <tbody> <tr> <td>Ba Carrier</td> <td>91.0</td> <td></td> <td>40 - 110</td> </tr> <tr> <td>Y Carrier</td> <td>85.2</td> <td></td> <td>40 - 110</td> </tr> </tbody> </table>											DU		DU		Carrier	%Yield	Qualifier	Limits	Ba Carrier	91.0		40 - 110	Y Carrier	85.2		40 - 110
DU		DU																								
Carrier	%Yield	Qualifier	Limits																							
Ba Carrier	91.0		40 - 110																							
Y Carrier	85.2		40 - 110																							

Eurofins Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534 5200 Fax 708-534-5211

Chain of Custody Record

MKE 232

eurofins
 En on stl

Client Information			Sampler <i>Mitchel Dolan</i>	Lab PM Mockler Diana J	Carrier Tracking No(s)	COC No 500-101316-44025 1		
Client Contact Mitchel Dolan			Phone <i>262-622-1143</i>	E-Mail Diana.Mockler@et.eurofins.com	State of Origin <i>IL</i>	Page Page 1 of 1		
Company KPRG and Associates Inc.			PWSID	Analysis Requested		Job # <i>500-217277</i>		
Address 14665 West Lsbon Road Suite 1A			Due Date Requested	Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 903.0 Standard Target List Ra226Ra228_GGPC Local Method 904.0 Standard Target List 6020A 7470A 2540C 4500_F_C_SMA4500 Cl_E_SMA4500 SO4_E		Total Number of Containers Preservation Codes A HCL M Hexane B NaOH N None C AsNaO2 C AsNaO2 D Zn Acetate P Na2O4S E Nitric Acid Q Na2SO4 F NaHSO4 R Na2S2O3 G MeOH S H2Sx.4 H Amchlor T TSF Dodecahyd ate I Ice U Aceto e J DI Water V MCAA K EDTA W pH 4-5 L EDA Y T izma Z other (specify)		
City Brookfield			TAT Requested (days)					
State Zip WI 53005			Compliance Project Δ Yes Δ No					
Phone 262 781-0475(Tel) 500-217777 COC			PO # 4502081030					
Email mitcheld@kprginc.com			*VO #					
Project Name Powerton CCR <i>FAB</i>			Project # 50011612	Special Instructions/Note				
Site Illinois			SSOW#					
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)			Matrix (W=water, S=soil, O=waste/oil)	Preservation Code:	
<i>MW-01</i>	<i>6/7/22</i>	<i>1432</i>	<i>G</i>			<i>Water</i>	<i>N N + + + +</i>	
<i>MW-02</i>	<i>6/7/22</i>	<i>1254</i>	<i>G</i>	<i>Water</i>	<i>N N + + + +</i>			
<i>MW-03</i>	<i>6/7/22</i>	<i>1200</i>	<i>G</i>	<i>Water</i>	<i>N N + + + +</i>			
<i>MW-04</i>	<i>6/7/22</i>	<i>1110</i>	<i>G</i>	<i>Water</i>	<i>N N + + + +</i>			
<i>MW-05</i>	<i>6/7/22</i>	<i>1018</i>	<i>G</i>	<i>Water</i>	<i>N N + + + +</i>			
<i>MW-06</i>	<i>6/7/22</i>	<i>1530</i>	<i>G</i>	<i>Water</i>	<i>N N + + + +</i>			
<i>Duplicate FAB</i>	<i>6/7/22</i>	<i>-</i>	<i>G</i>	<i>Water</i>	<i>N N + + + +</i>			
Possible Hazard Identification			Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological			<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested I II III IV Other (specify)			Special Instructions/QC Requirements					
Empty Kit Relinquished by			Date	Time	Method of Shipment			
Relinquished by <i>MPO</i>			Date/Time <i>6/7/22 / 1800</i>	Company <i>KPRG</i>	Received by <i>FEDEX</i>	Date/Time <i>6/7/22 / 1800</i>		
Relinquished by			Date/Time	Company	Received by <i>John Smith</i>	Date/Time <i>6/8/22 1645</i>		
Relinquished by			Date/Time	Company	Received by	Date/Time		
Custody Seals Intact: Δ Yes Δ No	Custody Seal No		Cooler Temperature(s) °C and Other Remarks <i>23 → 20.9, 29 → 15, 14 → 8.9</i>					

ORIGIN ID:PIAA (262) 622-1143
MITCHEL DOLAN
KPRG AND ASSOCIATES
414 PLAZA DR STE 106

WESTMONT, IL 60559
UNITED STATES US

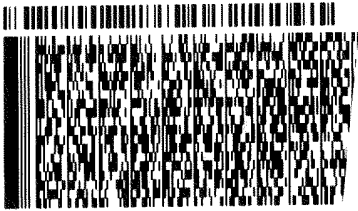
TO

TEST AMERICA
2417 BOND ST

UNIVERSITY PARK IL

(000) 000-0000 REF:

INU:
PO:



1 of 9
TRK# 2740 5878 9062
0201
MASTER

UF JOTA



PK STE 106
WESTMONT, IL 60559
UNITED STATES US

ACTWT: 46.40 LB
CAD: 6994780/SSFE2321
DIMS: 24x17x12 IN
BILL THIRD PARTY

TO

TEST AMERICA
2417 BOND ST

UNIVERSITY PARK IL 60484

(000) 000-0000 REF:

INU:
PO:



FedEx
Express



6 of 9
MPS# 2740 5878 9110
0263
Mstr# 2740 5878 9062

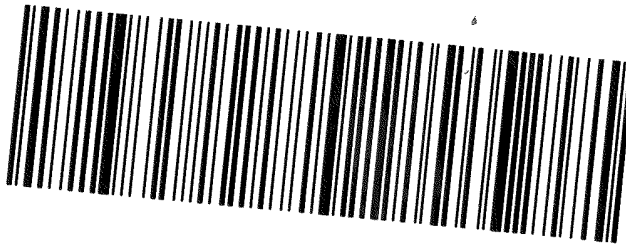
UF JOTA

0201

WED - 08 JUN 4:30P
STANDARD OVERNIGHT

AHS
60484

IL-US ORD



PIAA (262) 622-1143
DOLAN
KPRG AND ASSOCIATES
414 PLAZA DR STE 106

SHIP DATE: 07JUN22
ACTWT: 46.40 LB
CAD: 6994780/SSFE2321
DIMS: 24x17x12 IN

TO

TEST AMERICA
2417 BOND ST

UNIVERSITY PARK IL 60484

(000) 000-0000 REF:

INU:
PO:



FedEx
Express



3 of 9
MPS# 2740 5878 9084
0263
Mstr# 2740 5878 9062

UF JOTA

0201

WED - 08 JUN 4:30P
STANDARD OVERNIGHT

AHS
60484

IL-US ORD



Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler:	Lab PM:	Carrier Tracking No(s):		COC No:					
Client Contact: Shipping/Receiving		Phone:	Mockler, Diana J	State of Origin:		500-161850-1					
Company: TestAmerica Laboratories, Inc.		E-Mail: Diana.Mockler@eurofins.com		Page 1 of 1							
Address: 13715 Rider Trail North,		Accreditations Required (See note): NELAP - Illinois		Job #:		500-217777-2					
City: Earth City		Due Date Requested: 6/28/2022		Preservation Codes:		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)					
State, Zip: MO, 63045		TAT Requested (days):		Analysis Requested							
PO #:											
WO #:											
Project #: 50011612											
Site: MWG - Powerton											
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Solid, Overstool, Bristle, AAAB)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PreSep_21 Standard Target List	904.0/PreSep_0 Standard Target List	Ra226Ra228_GPC	Total Number of Containers	Special Instructions/Note:
MW-01 (500-217777-1)	6/7/22	14:32 Central	Water	Water	X	X	X	X		3	Full QC needed (dups, etc) Batch QC must be performed (dup, spikes, etc) - no
MW-02 (500-217777-2)	6/7/22	12:54 Central	Water	Water	X	X	X	X		3	Full QC needed (dups, etc) Batch QC must be performed (dup, spikes, etc) - no
MW-03 (500-217777-3)	6/7/22	12:00 Central	Water	Water	X	X	X	X		3	Full QC needed (dups, etc) Batch QC must be performed (dup, spikes, etc) - no
MW-04 (500-217777-4)	6/7/22	11:10 Central	Water	Water	X	X	X	X		3	Full QC needed (dups, etc) Batch QC must be performed (dup, spikes, etc) - no
MW-05 (500-217777-5)	6/7/22	10:18 Central	Water	Water	X	X	X	X		3	Full QC needed (dups, etc) Batch QC must be performed (dup, spikes, etc) - no
MW-10 (500-217777-6)	6/7/22	15:30 Central	Water	Water	X	X	X	X		3	Full QC needed (dups, etc) Batch QC must be performed (dup, spikes, etc) - no
Duplicate (500-217777-7)	6/7/22	Central	Water	Water	X	X	X	X		3	Full QC needed (dups, etc) Batch QC must be performed (dup, spikes, etc) - no

Note: Since laboratory accreditations are subject to change, Eurofins Chicago places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Chicago laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Chicago attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Chicago.

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2
 Empty Kit Relinquished by: _____ Date: _____ Time: _____
 Relinquished by: *Ann Stots* Date: 6/9/22 Time: 1500 Company: *FEDEX*
 Relinquished by: _____ Date: _____ Time: _____ Company: _____
 Relinquished by: _____ Date: _____ Time: _____ Company: _____
 Custody Seals Intact: _____ Custody Seal No.: _____
 Yes No
 Received by: _____ Date/Time: _____ Company: _____
 Received by: *Sana Worthington* Date/Time: 6/10/2022 0900 Company: *GRASS*
 Received by: _____ Date/Time: _____ Company: _____
 Cooler Temperature(s) °C and Other Remarks: _____

Special Instructions/QC Requirements:
 Return To Client
 Disposal By Lab
 Archive For _____ Months



Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-217777-2

Login Number: 217777

List Number: 1

Creator: Scott, Sherri L

List Source: Eurofins Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.9,1.5,0.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-217777-2

Login Number: 217777

List Number: 2

Creator: Worthington, Sierra M

List Source: Eurofins St. Louis

List Creation: 06/10/22 12:05 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Powerton CCR FAB (RAD)

Job ID: 500-217777-2

Client Sample ID: MW-01

Date Collected: 06/07/22 14:32

Date Received: 06/08/22 17:43

Lab Sample ID: 500-217777-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			570311	06/16/22 14:09	MS	TAL SL
Total/NA	Analysis	903.0		1	573267	07/08/22 11:40	EMH	TAL SL
Total/NA	Prep	PrecSep_0			570316	06/16/22 14:40	MS	TAL SL
Total/NA	Analysis	904.0		1	571384	06/23/22 12:07	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	573390	07/11/22 10:32	CAH	TAL SL

Client Sample ID: MW-02

Date Collected: 06/07/22 12:54

Date Received: 06/08/22 17:43

Lab Sample ID: 500-217777-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			570311	06/16/22 14:09	MS	TAL SL
Total/NA	Analysis	903.0		1	573267	07/08/22 11:40	EMH	TAL SL
Total/NA	Prep	PrecSep_0			570316	06/16/22 14:40	MS	TAL SL
Total/NA	Analysis	904.0		1	571384	06/23/22 12:07	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	573390	07/11/22 10:32	CAH	TAL SL

Client Sample ID: MW-03

Date Collected: 06/07/22 12:00

Date Received: 06/08/22 17:43

Lab Sample ID: 500-217777-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			570311	06/16/22 14:09	MS	TAL SL
Total/NA	Analysis	903.0		1	573267	07/08/22 11:40	EMH	TAL SL
Total/NA	Prep	PrecSep_0			570316	06/16/22 14:40	MS	TAL SL
Total/NA	Analysis	904.0		1	571384	06/23/22 12:07	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	573390	07/11/22 10:32	CAH	TAL SL

Client Sample ID: MW-04

Date Collected: 06/07/22 11:10

Date Received: 06/08/22 17:43

Lab Sample ID: 500-217777-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			570311	06/16/22 14:09	MS	TAL SL
Total/NA	Analysis	903.0		1	573267	07/08/22 11:40	EMH	TAL SL
Total/NA	Prep	PrecSep_0			570316	06/16/22 14:40	MS	TAL SL
Total/NA	Analysis	904.0		1	571384	06/23/22 12:07	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	573390	07/11/22 10:32	CAH	TAL SL

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Powerton CCR FAB (RAD)

Job ID: 500-217777-2

Client Sample ID: MW-05

Date Collected: 06/07/22 10:18

Date Received: 06/08/22 17:43

Lab Sample ID: 500-217777-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			570311	06/16/22 14:09	MS	TAL SL
Total/NA	Analysis	903.0		1	573267	07/08/22 13:57	EMH	TAL SL
Total/NA	Prep	PrecSep_0			570316	06/16/22 14:40	MS	TAL SL
Total/NA	Analysis	904.0		1	571384	06/23/22 12:08	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	573390	07/11/22 10:32	CAH	TAL SL

Client Sample ID: MW-10

Date Collected: 06/07/22 15:30

Date Received: 06/08/22 17:43

Lab Sample ID: 500-217777-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			570311	06/16/22 14:09	MS	TAL SL
Total/NA	Analysis	903.0		1	573267	07/08/22 13:57	EMH	TAL SL
Total/NA	Prep	PrecSep_0			570316	06/16/22 14:40	MS	TAL SL
Total/NA	Analysis	904.0		1	571384	06/23/22 12:08	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	573390	07/11/22 10:32	CAH	TAL SL

Client Sample ID: Duplicate

Date Collected: 06/07/22 00:00

Date Received: 06/08/22 17:43

Lab Sample ID: 500-217777-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			570311	06/16/22 14:09	MS	TAL SL
Total/NA	Analysis	903.0		1	573267	07/08/22 13:57	EMH	TAL SL
Total/NA	Prep	PrecSep_0			570316	06/16/22 14:40	MS	TAL SL
Total/NA	Analysis	904.0		1	571384	06/23/22 12:08	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	573390	07/11/22 10:32	CAH	TAL SL

Laboratory References:

TAL SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: KPRG and Associates, Inc.
Project/Site: Powerton CCR FAB (RAD)

Job ID: 500-217777-2

Laboratory: Eurofins St. Louis

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	200023	11-30-22

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Tracer/Carrier Summary

Client: KPRG and Associates, Inc.
Project/Site: Powerton CCR FAB (RAD)

Job ID: 500-217777-2

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (40-110)
500-217777-1	MW-01	94.3
500-217777-1 DU	MW-01	91.0
500-217777-2	MW-02	87.5
500-217777-3	MW-03	83.0
500-217777-4	MW-04	89.3
500-217777-5	MW-05	92.8
500-217777-6	MW-10	77.5
500-217777-7	Duplicate	54.0
LCS 160-570311/2-A	Lab Control Sample	101
MB 160-570311/1-A	Method Blank	93.3

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (40-110)	Y (40-110)
500-217777-1	MW-01	94.3	86.4
500-217777-1 DU	MW-01	91.0	85.2
500-217777-2	MW-02	87.5	85.2
500-217777-3	MW-03	83.0	86.7
500-217777-4	MW-04	89.3	86.4
500-217777-5	MW-05	92.8	84.1
500-217777-6	MW-10	77.5	86.7
500-217777-7	Duplicate	54.0	86.0
LCS 160-570316/2-A	Lab Control Sample	101	85.6
MB 160-570316/1-A	Method Blank	93.3	86.4

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Date: 6/6/2022

NRG - Groundwater Levels. Location: Powerton

<u>Well ID</u>	<u>Depth to Water</u>	<u>Time</u>	<u>Notes</u>
MW-01	22.13	1348	
MW-02	22.71	1350	
MW-03	22.50	1353	
MW-04	22.89	1356	
MW-05	20.31	1358	
MW-06	17.06	1405	NON-CCR WELL
MW-07	24.65	1407	NON-CCR WELL
MW-08	25.04	1410	
MW-09	22.95	1336	
MW-10	14.07	1345	
MW-11	27.55	1342	
MW-12	22.65	1432	
MW-13	28.61	1427	
MW-14	24.10	1415	
MW-15	24.29	1413	
MW-16	24.50	1327	NON-CCR WELL
MW-17	19.45	1425	
MW-18	25.71	1438	
MW-19	21.05	1339	
MW-20	26.10	1418	
MW-21	27.55	1420	
FAB	4.88	1441	
MCB	—	1422	No water at gauge
ASB	—	1435	No water at gauge
Bypass Basin	2.08	1433	

PROJECT NAME	NRG - POWERTON STATION (12313.1)		DATE	6/7/22
Sample Name	MW-01	Start Time	1410	
Condition of Well	Good			
Water Level	22.13	Total Depth	-	
Well Diameter	PVC - 2 inch	Volume in Well	-	
Method of Purge	Low-Flow	Purge Characteristics	Clear	
Volume Removed	2 gal	WL at Sample Time	22.13	
Method of Sample	Low-Flow	Sample Characteristics	Clear	
Sample Analysis	AB3/ASB + PAB CCR, CCA	Sample Time	1432	
Water Quality Meter	YSI ProDss			

Time	Depth to Water (ft)	ph (SU)	Temp (°C)	Spec. Cond (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1411	22.13	7.76	9.5	0.820	9.03	183.3	2.48
1416	-	7.61	7.4	0.719	5.57	187.8	4.06
1421	-	7.62	7.2	0.719	5.11	186.1	4.20
1426	22.13	7.62	7.1	0.717	5.00	186.0	3.63

SAMPLING NOTES:

Sampler Name and Company:

KPRG and Associates

MJD

PROJECT NAME	NRG – POWERTON STATION (12313.1)		DATE	6/7/22
Sample Name	MW-02	Start Time	1236	
Condition of Well	Good			
Water Level	22.71	Total Depth	-	
Well Diameter	PVC – 2 inch	Volume in Well	-	
Method of Purge	Low-Flow	Purge Characteristics	Clear	
Volume Removed	1.75 gal	WL at Sample Time	22.71	
Method of Sample	Low-Flow	Sample Characteristics	Clear	
Sample Analysis	CCA + CCR	Sample Time	1254	
Water Quality Meter	YSI ProDss			

Time	Depth to Water (ft)	ph (SU)	Temp (°C)	Spec. Cond (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1238	22.71	7.88	12.4	0.768	7.92	163.9	2.20
1243	-	7.73	11.7	0.737	1.55	174.3	2.13
1248	-	7.73	11.5	0.739	1.14	174.3	2.08
1253	22.71	7.73	11.5	0.737	0.98	174.1	2.03

SAMPLING NOTES:

FAB CCR Duplicate

Sampler Name and Company:

KPRG and Associates

MPD

PROJECT NAME	NRG – POWERTON STATION (12313.1)		DATE	6/7/22
Sample Name	MW-03	Start Time	1143	
Condition of Well	Good			
Water Level	22.50	Total Depth	-	
Well Diameter	PVC – 2 inch	Volume in Well	-	
Method of Purge	Low-Flow	Purge Characteristics	Clear	
Volume Removed	2 gal	WL at Sample Time	22.50	
Method of Sample	Low-Flow	Sample Characteristics	Clear	
Sample Analysis	CCA + CCR	Sample Time	1200	
Water Quality Meter	YSI ProDss			

Time	Depth to Water (ft)	ph (SU)	Temp (°C)	Spec. Cond (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1144	22.50	7.62	14.4	0.775	8.07	163.7	2.00
1149	-	7.41	12.9	0.695	4.07	172.6	1.97
1154	-	7.37	13.0	0.696	3.49	171.9	1.64
1159	22.50	7.37	12.9	0.696	3.40	171.0	1.72

SAMPLING NOTES:

Sampler Name and Company:

KPRG and Associates

MAD

PROJECT NAME	NRG – POWERTON STATION (12313.1)		DATE	6/17/22
Sample Name	MW-04	Start Time	1052	
Condition of Well	Good			
Water Level	22.89	Total Depth	-	
Well Diameter	PVC – 2 inch	Volume in Well	-	
Method of Purge	Low-Flow	Purge Characteristics	Clear	
Volume Removed	2 gal	WL at Sample Time	22.90	
Method of Sample	Low-Flow	Sample Characteristics	Clear	
Sample Analysis	CCR + CCA	Sample Time	1110	
Water Quality Meter	YSI ProDss			

Time	Depth to Water (ft)	ph (SU)	Temp (°C)	Spec. Cond (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1054	22.89	7.46	18.2	0.823	4.80	150.3	3.93
1059	-	7.33	19.2	0.641	3.78	146.2	1.94
1104	-	7.32	19.3	0.640	3.42	146.5	8.27
1109	22.90	7.31	19.3	0.638	3.76	148.4	1.62

SAMPLING NOTES:

Sampler Name and Company:

KPRG and Associates

MJP

PROJECT NAME	NRG – POWERTON STATION (12313.1)		DATE	6/17/22
Sample Name	MW-05	Start Time	1000	
Condition of Well	Good			
Water Level	20.31	Total Depth	-	
Well Diameter	PVC – 2 inch	Volume in Well	-	
Method of Purge	Low-Flow	Purge Characteristics	Clear	
Volume Removed	2 gal	WL at Sample Time	20.33	
Method of Sample	Low-Flow	Sample Characteristics	Clear	
Sample Analysis	CCR + CCA	Sample Time	1018	
Water Quality Meter	YSI ProDss			

Time	Depth to Water (ft)	ph (SU)	Temp (°C)	Spec. Cond (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1002	20.31	7.45	14.5	1.003	3.92	102.6	2.48
1007	-	7.18	14.4	1.028	0.73	98.8	2.36
1012	-	7.15	14.3	1.011	0.43	95.1	2.23
1017	20.33	7.15	14.4	1.007	0.34	93.2	2.33

SAMPLING NOTES:

Sampler Name and Company:

KPRG and Associates

MPO

PROJECT NAME	NRG – POWERTON STATION (12313.1)		DATE	6/7/22
Sample Name	MW-10	Start Time	1511	
Condition of Well	Good			
Water Level	14.07	Total Depth	-	
Well Diameter	PVC – 2 inch	Volume in Well	-	
Method of Purge	Low-Flow	Purge Characteristics	SL Cloudy	
Volume Removed	2 gal	WL at Sample Time	14.11	
Method of Sample	Low-Flow	Sample Characteristics	Clear	
Sample Analysis	CCR + CCA	Sample Time	1530	
Water Quality Meter	YSI ProDss			

Time	Depth to Water (ft)	ph (SU)	Temp (°C)	Spec. Cond (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1513	14.07	7.10	13.2	0.711	2.09	203.9	22.89
1518	-	7.09	12.9	0.701	0.77	205.0	12.20
1523	-	7.10	12.9	0.702	0.50	205.1	8.70
1528	14.11	7.09	13.1	0.704	0.42	204.9	7.88

SAMPLING NOTES:

Sampler Name and Company:

KPRG and Associates

MAD