Annual Groundwater Monitoring Report

Southwestern Electric Power Company

Welsh Power Plant

Primary Bottom Ash Pond

CN 602843245; RN100213370

Registration No: CCR 110

1187 Country Road 4865
Titus County
Pittsburg, Texas

January 31, 2026

Prepared by:
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SOUTHWESTERN ELECTRIC POWER COMPANY℠

An AEP Company

BOUNDLESS ENERGY℠

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Abbreviations:
ASD - Alternate Source Demonstration
CCR – Coal Combustion Residual
GWPS - Groundwater protection standards
PBAP – Primary Bottom Ash Pond
SSI - Statistically Significant Increase
SSL – Statistically Significant Level
TDS – Total Dissolved Solids
TCEQ – Texas Commission on Environmental Quality

I. Overview

This *Annual Groundwater Monitoring Report* (Report) has been prepared to report the status of activities for the preceding year for an existing Coal Combustion Residual (CCR) unit at Southwestern Electric Power Company's, a wholly owned subsidiary of American Electric Power Company (AEP), Welsh Power Plant. The Texas Commission on Environmental Quality's (TCEQ's) CCR rule requires that the Annual Groundwater Monitoring Report be posted to the operating record for the preceding year no later than January 31, 2026.

In general, the following activities were completed:

- At the start of the current annual reporting period, the PBAP was operating under the Assessment monitoring program.
- At the end of the current annual reporting period, the PBAP was operating under the Assessment monitoring program.
- The PBAP initiated an assessment monitoring program on April 13, 2018.
- Groundwater samples and elevations were collected for AD-1, AD-5, AD-17, AD-8, AD-9, and AD-15 and analyzed for Appendix III and IV constituents, as specified in 30 TAC §352.951*et seq.* and AEP's *Groundwater Sampling and Analysis Plan (2021)*.
- Groundwater data underwent various validation tests, including tests for completeness, valid values, transcription errors, and consistent units.
- Annual groundwater sampling was conducted in February 2025;
- The 1st semi-annual groundwater sampling event was conducted in April 2025;
    - Potential SSIs above background were identified for:
        - Boron at AD-8
        - Fluoride at AD-8
        - pH at AD-15
    - No potential SSLs above GWPS were identified.
- The 2nd semi-annual groundwater sampling event was conducted in September 2025;
    - Potential SSIs above background were identified for:
        - Fluoride at AD-8
        - pH at AD-9 and AD-15
        - TDS at AD-15
    - No potential SSLs above GWPS were identified.
- Because either there were no SSLs or because an alternate source for the SSL(s) was identified, but no alternate source for the SSI(s) was identified, [Insert CCR Unit Name] remained in Assessment Monitoring;

The major components of this annual report, to the extent applicable at this time, are presented in sections that follow:

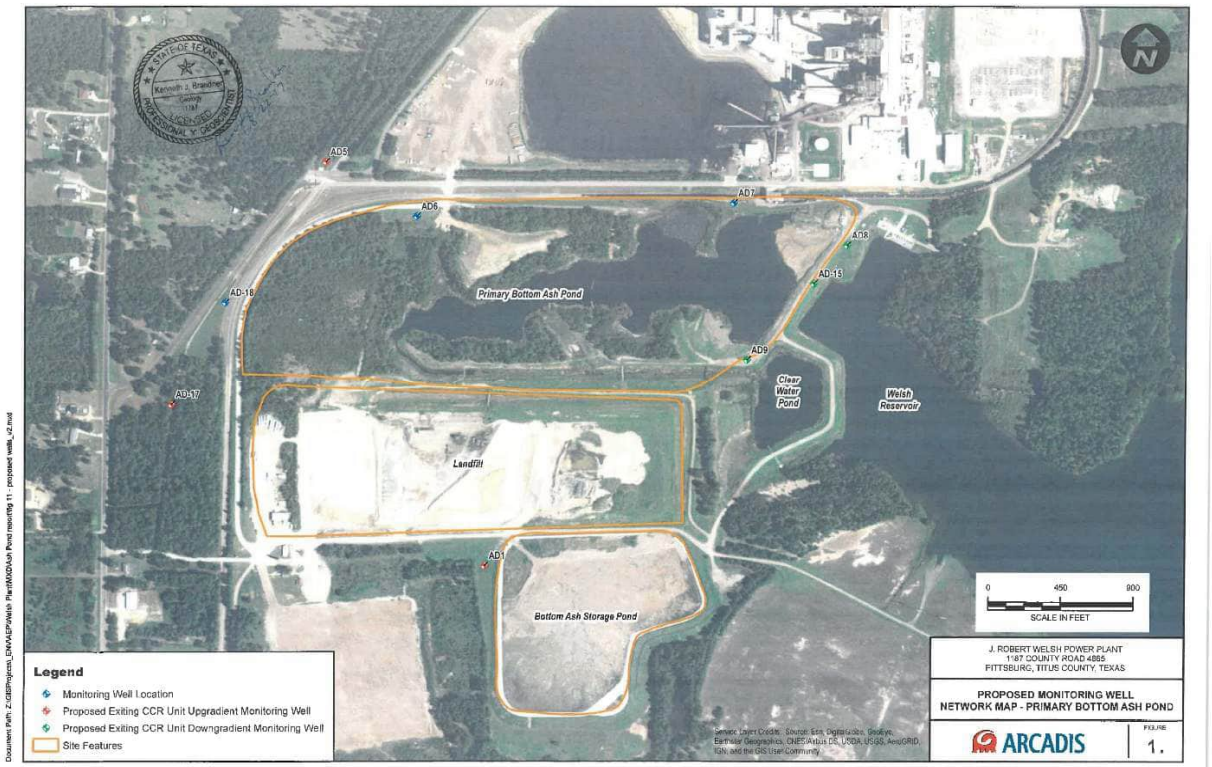
- A map, aerial photograph or a drawing showing the PBAP CCR unit, all groundwater monitoring wells and monitoring well identification numbers is in Appendix 1;
- All of the monitoring data collected, including the rate and direction of groundwater flow, plus a summary showing the number of samples collected per monitoring well, the dates the samples were collected and whether the sample was collected as part of assessment monitoring programs is included in Appendix 1;
- Statistical comparison of monitoring data to determine if there have been SSI(s) and SSLs, where applicable (Appendix 2);
- A discussion of whether any alternate source demonstrations were performed, and the conclusions, where applicable (Appendix 3);
- A summary of any transition between monitoring programs or an alternate monitoring frequency, if applicable (Appendix 4).
- Identification of any monitoring wells that were installed, or decommissioned during the preceding year, along with a statement as to why that happened, where applicable (Appendix 5,); and
- Other information required to be included in the annual report, field sheets, analytical reports, etc. (Appendix 6)

In addition, this report summarizes key actions completed, and where applicable, describes any problems encountered and actions taken to resolve those problems. The report includes a projection of key activities for the upcoming year.

II. Groundwater Monitoring Well Locations and Identification Numbers

The figure that follows depicts the PE-certified groundwater monitoring network, the monitoring well locations and their corresponding identification numbers.

Primary Bottom Ash Pond Monitoring Wells	
Background	Down Gradient
AD-1	AD-8
AD-5	AD-9
AD-17	AD-15



Note: ADs 6, 7, and 18 are used for gauging purposes only

III. Monitoring Wells Installed or Decommissioned

There were no groundwater monitoring wells installed or decommissioned during this reporting period.

IV. Groundwater Quality Data and Static Water Elevation Data, With Flow Rate and Direction and Discussion

Groundwater samples and elevations were collected for AD-1, AD-5, AD-17, AD-8, AD-9, and AD-15 and analyzed for Appendix III and IV constituents, as specified in §352.951*et seq.* and AEP's *Groundwater Sampling and Analysis Plan (2021)*.

Appendix 1 contains potentiometric maps with the static water elevation, groundwater flow direction for each monitoring event, tables showing groundwater velocity, and all the groundwater quality data collected to date under 30 TAC 352.951.

V. Groundwater Quality Data Statistical Analysis

Appendix 2 contains the statistical analysis reports available for this reporting period.

The annual sampling event for the compliance wells for the Appendix III and IV parameters was conducted February 10, 2025, and satisfies the requirement of 30 TAC 352.951.

The 1st semi-annual groundwater sampling event was conducted April 28-29, 2025, with statistical evaluation certified August 26, 2025;

- Potential SSIs above background were identified for:
  - Boron at AD-8
  - Fluoride at AD-8
  - pH at AD-15

- No potential SSLs above GWPS were identified.

The 2nd semi-annual groundwater sampling event was conducted September 2-4, 2025, with statistical evaluation certified December 29, 2025;

- Potential SSIs above background were identified for:
  - Fluoride at AD-8
  - pH at AD- 9 andAD-15
  - TDS at AD-15

- No potential SSLs above GWPS were identified.

VI. Alternate Source Demonstrations

No ASDs were conducted for this reporting period since no SSLs were identified.

VII. Discussion About Transition Between Monitoring Requirements or Alternate Monitoring Frequency

As of this annual groundwater report, the CCR Unit remains in assessment monitoring and will be sampled on a semi-annual basis.

VIII. Other Information Required

Field sheets and laboratory reports are in Appendix 6.

IX. Description of Any Problems Encountered and Actions Taken

No significant problems were encountered.

X. A Projection of Key Activities for the Upcoming Year

- Conducted the annual groundwater sampling event for all constituents listed in 30 TAC 352 Appendix III and IV;
- Assessment monitoring will continue on a semiannual groundwater sampling schedule for 30 TAC 352 Appendix III and IV constituents;
- Evaluation of the assessment monitoring results from a statistical analysis viewpoint, looking for SSIs above background and SSLs above GWPS;

- If needed, ASDs will be conducted to evaluate if the unit can remain in assessment monitoring or the unit will move to an assessment of corrective measures;
- Responding to any new data received considering TCEQ's CCR rule requirements; and
- Preparation of the next annual groundwater report.

APPENDIX 1

Potentiometric Maps and Tables follow, showing the groundwater monitoring data collected, the rate and direction of groundwater flow, and a summary showing the number of samples collected per monitoring well. The dates that the samples were collected also is shown.



Legend

- Groundwater Monitoring Well
- Groundwater Elevation Contour
- Approximate Groundwater Flow Direction
- CCR Units

Notes

1. Monitoring well coordinates and water level data (collected on February 10, 2025) provided by AEP.
2. Site features based on information available in CCR Groundwater Monitoring Well Network Evaluation (Arcadis 2C
3. Groundwater elevation units are feet above mean sea level (ft amsl).
4. Monitoring wells AD-1, AD-2, and AD-3 were not gauged during the February 2025 event.
5. Wells shaded in gray were not used for contouring.
6. Aerial imagery provided by the TxGIO DataHub (dated 2024).

500 250 0 500 Feet

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Beth Ann Gross

January 26, 2026

Geosyntec Consultants, Inc.
Texas Firm Registration No. 1182

Groundwater Potentiometric Map
February 2025

AEP Welsh Power Plant
Cason, Texas

Geosyntec consultants

Columbus, Ohio | 2025/06/16

Figure **1**

A:\Projects\AEP\Groundwater Statistical Evaluation - CHA8423\Groundwater Mapping\GIS Files\MXD\Welsh\2025\AEP-Welsh_GW_2025-02Feb.mxd. Okiemute.Commander. 6/16/2025. CHA8423/14/08.



Legend

- Groundwater Monitoring Well
- Groundwater Elevation Contour
- Groundwater Elevation Contour (Inferred)
- Approximate Groundwater Flow Direction
- CCR Units

Notes

1. Monitoring well coordinates and water level data (collected on April 28 and 29, 2025) provided by AEP.
2. Site features based on information available in CCR Groundwater Monitoring Well Network Evaluation (Arcadis 2022).
3. Groundwater elevation units are feet above mean sea level (ft amsl).
4. Aerial imagery provided by the TxGIO DataHub (dated 2024).

500 250 0 500 Feet

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January 26, 2026

Geosyntec Consultants, Inc.
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Groundwater Potentiometric Map
April 2025

AEP Welsh Power Plant
Cason, Texas

Geosyntec consultants

Columbus, Ohio | 2025/06/16

Figure 2

A:\Projects\AEP\Groundwater Statistical Evaluation - CHA8423\Groundwater Mapping\GIS Files\MXD\Welsh\2025\AEP-Welsh_GW_2025-04Apr.mxd. Okiemute.Commander. 6/16/2025. CHA8423/14/08.



Legend

- Groundwater Monitoring Well
- Groundwater Elevation Contour
- Groundwater Elevation Contour (Inferred)
- Approximate Groundwater Flow Direction
- CCR Units

Notes

1. Monitoring well coordinates and water level data (collected from September 2 - 4, 2025) provided by AEP.
2. Site features based on information available in CCR Groundwater Monitoring Well Network Evaluation (Arcadis 2022).
3. Groundwater elevation units are feet above mean sea level (ft amsl).
4. Aerial imagery provided by the TxGIO DataHub (dated 2024).

500 250 0 500 Feet

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January 26, 2026

Geosyntec Consultants, Inc.
Texas Firm Registration No. 1182

Groundwater Potentiometric Map
September 2025

AEP Welsh Power Plant
Cason, Texas

Geosyntec consultants

Columbus, Ohio | 2025/10/15

Figure 3

A:\Projects\AEP\Groundwater Statistical Evaluation - CHA8423\Groundwater Mapping\GIS Files\MXD\Welsh\2025\AEP-Welsh_GW_2025-09Sept.mxd. okiemute.commander. 10/15/2025. CHA8423/14/08.

Table 1. Groundwater Elevation Data Summary
Welsh Power Plant

Geosyntec Consultants

Unit	All Units			Bottom Ash Storage Pond			Primary Bottom Ash Pond			Landfill		
Gradient	Upgradient			Downgradient			Downgradient			Downgradient		
Well	AD-1	AD-5	AD-17	AD-3	AD-4C	AD-16R*	AD-8	AD-9	AD-15	AD-11	AD-13	AD-14
Mar-16	342.83	338.04	334.64	325.12	326.19	337.09	325.70	329.74	322.14	328.13	334.76	334.83
May-2016	344.89	337.62	334.26	312.97	325.89	335.84	325.68	329.28	321.93	328.39	334.54	334.51
Jul-2016	342.89	337.24	334.30	323.70	324.01	332.14	325.05	329.53	321.28	328.14	332.93	331.71
Sep-2016	341.42	337.51	334.45	323.63	324.00	326.52	325.49	329.11	321.42	327.99	332.65	331.17
Oct-2016	341.23	337.74	334.64	323.47	323.76	331.43	325.29	328.92	321.71	327.87	332.39	330.94
Dec-2016	340.58	337.01	334.05	323.78	325.07	330.96	325.92	329.31	321.64	328.20	332.84	330.79
Jan-2017	341.18	338.34	333.94	325.04	326.39	330.71	326.76	330.50	322.81	328.90	334.54	332.63
Feb-2017	339.74	336.17	333.94	324.92	324.89	--	324.27	328.05	321.93	328.25	331.83	330.87
May-2018	340.31	335.56	332.85	321.79	324.54	328.72	325.72	329.32	320.26	326.36	330.38	330.57
Aug-2018	339.16	336.37	333.95	323.02	323.43	326.91	325.84	329.58	321.57	327.67	331.01	329.38
Nov-2018	--	--	--	325.51	326.24	327.20	--	--	--	--	--	--
Feb-2019	341.95	338.15	334.86	325.97	326.50	331.39	326.37	330.03	322.60	328.80	333.60	334.25
Apr-2019	--	--	--	325.37	326.28	335.76	326.20	330.00		328.16	333.29	334.59
May-2019	345.68	337.54	335.13	325.65	326.15	339.02	326.09	329.83	322.03	328.08	333.46	334.77
Jul-2019	343.95	336.89	334.94	324.72	324.73	332.17	325.80	329.57	321.43	327.97	332.23	331.85
Feb-2020	341.88	338.56	334.94	--	--	--	326.04	329.58	322.12	328.10	333.38	333.44
May-2020	344.09	337.79	335.10	325.38	326.20	330.42	326.32	329.75	322.17	328.33	333.29	333.97
Oct-2020	340.56	337.35	334.69	323.57	324.19	327.67	325.36	328.60	321.12	327.49	330.97	330.04
Dec-2020	340.04	337.61	334.63	323.51	325.17	327.12	--	--	--	--	--	--
Feb-2021	341.68	338.16	334.72	--	--	--	326.38	329.55	322.20	328.46	333.35	333.73
Jun-2021	345.82	337.15	334.93	326.36	326.87	330.59	326.77	329.92	322.45	328.70	334.69	335.88
Jul-2021	--	--	--	--	325.45	--	--	--	--	--	--	--
Oct-2021	340.54	336.75	334.53	322.86	323.58	327.58	325.23	328.51	320.33	327.08	330.94	329.73
Mar-2022	339.58	337.12	333.92	323.80	325.62	326.17	DRY	DRY	DRY	DRY	DRY	DRY
Jun-2022	338.86	335.94	333.48	323.11	323.46	326.44	324.65	328.45	320.27	327.03	330.56	329.18
Aug-2022	339.01	336.02	333.48	322.80	324.21	325.87	--	--	--	--	--	--
Oct-2022	--	--	--	--	--	--	324.90	328.75	321.19	327.16	330.50	329.17
Nov-2022	338.17	336.41	333.31	323.12	324.46	325.74	--	--	--	--	--	--
Feb-2023	--	--	--	325.80	325.52	327.52	326.20	329.95	322.28	327.97	333.00	332.79
Jun-2023	339.19	336.58	333.87	324.06	324.44	327.57	325.51	328.86	321.42	327.60	330.98	330.04
Jul-2023	--	--	--	--	324.76	--	--	--	--	--	--	--
Oct-2023	338.51	336.62	333.95	322.97	323.27	326.72	325.44	328.98	320.82	327.03	330.46	329.12
Dec-2023	--	--	--	323.85	325.01	326.04	--	--	--	--	--	--
Feb-2024	339.36	337.89	334.35	324.90	325.68	328.14	325.85	329.77	322.36	327.52	332.36	331.59
Apr-2024	340.18	337.75	334.50	325.31	326.16	328.90	326.13	329.93	322.70	327.79	333.30	333.03
Jun-2024	--	--	--	325.28	326.22	328.84	--	--	--	--	--	--
Sep-2024	339.66	337.28	334.42	323.46	323.68	328.11	324.88	328.66	320.87	327.07	330.92	329.71
Nov-2024	--	--	--	323.49	323.87	328.04	--	--	--	--	--	--
Feb-2025	--	338.52	334.40	--	325.81	327.48	326.53	330.24	322.57	323.72	330.84	330.62
Apr-2025	340.62	337.45	334.67	324.31	325.18	328.70	326.36	329.36	322.44	323.81	330.18	330.09
Jun-2025	340.85	337.79	335.47	324.61	326.00	329.07	326.91	329.86	323.01	324.02	330.93	330.74
Sep-2025	339.91	336.44	334.44	323.75	324.31	327.48	325.90	329.20	321.63	324.12	329.59	328.76
Nov-2025	338.88	336.56	334.15	323.19	323.67	325.87	325.13	329.90	320.55	324.15	329.17	--

Notes:
1. Groundwater elevation measured in feet above mean sea level.
*AD-16 prior to February 2017.

Table 1: Residence Time Calculation Summary
Welsh Primary Bottom Ash Pond

Geosyntec Consultants, Inc.

CCR Management Unit	Monitoring Well	Well Diameter (inches)	2025-02		2025-04		2025-06[3]		2025-09	
			Groundwater Velocity (ft/year)	Groundwater Residence Time (days)	Groundwater Velocity (ft/year)	Groundwater Residence Time (days)	Groundwater Velocity (ft/year)	Groundwater Residence Time (days)	Groundwater Velocity (ft/year)	Groundwater Residence Time (days)
Primary Bottom Ash Pond	AD-1 [1]	2.0	NC	NC	2.8	21.7	2.5	24.4	3.6	17.0
	AD-5 [1]	2.0	1.4	42.6	1.3	46.0	1.9	32.2	1.3	45.9
	AD-8 [2]	2.0	3.9	15.7	4.4	13.7	4.2	14.5	4.2	14.4
	AD-9 [2]	2.0	1.8	33.9	1.9	31.6	2.7	22.4	1.8	34.2
	AD-15 [2]	2.0	6.9	8.8	7.7	7.9	6.3	9.7	7.3	8.3
	AD-17 [1]	2.0	8.9	6.8	8.5	7.2	8.0	7.6	8.1	7.5

Notes:
[1] - Upgradient Well
[2] - Downgradient Well
[3] - Verification event
NC - Not calculated

Table 1. Groundwater Data Summary: AD-1
Welsh - PBAP
Appendix III Constituents

Collection Date	Monitoring Program	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	Total Dissolved Solids
		mg/L	mg/L	mg/L	mg/L	S.U.	mg/L	mg/L
5/26/2016	Background	0.346	36.5	5	< 0.083 U1	5.9	42	252
7/27/2016	Background	0.35	39.6	4	< 0.083 U1	5.3	36	239
9/30/2016	Background	0.332	15	5	< 0.083 U1	5.4	35	173
10/19/2016	Background	0.398	19.1	4	< 0.083 U1	5.2	42	192
12/12/2016	Background	0.394	8.74	4	< 0.083 U1	5.2	40	200
1/17/2017	Background	0.656	129	4	< 0.083 U1	7.1	68	538
2/23/2017	Background	0.7	147	9	< 0.083 U1	6.9	68	612
6/07/2017	Background	0.449	15.1	4	< 0.083 U1	5.1	42	176
10/06/2017	Detection	0.453	14.3	4	< 0.083 U1	5.3	40	160
5/24/2018	Assessment	0.345	10.2	4	< 0.083 U1	5.2	43	150
8/14/2018	Assessment	0.443	5.95	5	< 0.083 U1	5.2	44	160
2/20/2019	Assessment	0.504	142	2.82	0.24	7.3	49.2	522
5/30/2019	Assessment	0.689	138	1.59	0.29	6.7	43.3	588
7/24/2019	Assessment	0.644	62.7	2	0.106 J1	6.0	58	180
2/17/2020	Assessment	0.626	115	3.41	0.31	5.8	56.3	488
5/20/2020	Assessment	0.801	126	1.83	0.20	7.2	51.4	508
10/14/2020	Assessment	0.670	3.88	2.16	0.25	4.5	66.9	183
2/23/2021	Assessment	0.617	113	--	0.31	6.6	--	--
6/02/2021	Assessment	0.786	97.1	2.26	0.30	6.2	61.4	400
10/20/2021	Assessment	0.732	4.8	2.21	0.22	4.4	72.4	190
6/28/2022	Assessment	0.768	6.76	2.32	0.22	4.9	74.7	180
11/01/2022	Assessment	0.586	7.87	2.70	0.14	4.8	61.3	170
6/06/2023	Assessment	0.729	6.59	3.03	0.24	4.9	91.1	210
10/04/2023	Assessment	0.901	6.56	3.03	0.20	5.3	80.7	200
4/01/2024	Assessment	0.781	44.9 M1	3.33	0.23	5.7	104	310
9/10/2024	Assessment	0.973	7.75	3.98	0.43	5.7	126	260
4/29/2025	Assessment	0.916	19.7	4.63	0.68	5.4	144	300
9/04/2025	Assessment	1.00	10.6	4.63	0.65	5.5	141	280

Table 1. Groundwater Data Summary: AD-1
Welsh - PBAP
Appendix IV Constituents

Collection Date	Monitoring Program	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	pCi/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L
5/26/2016	Background	< 0.93 U1	1.39361 J1	191	0.271453 J1	0.213294 J1	0.240267 J1	1.15339 J1	1.184	< 0.083 U1	< 0.68 U1	0.01	0.033	0.53149 J1	1.74922 J1	0.959865 J1
7/27/2016	Background	< 0.93 U1	< 1.05 U1	191	0.315631 J1	0.0940357 J1	< 0.23 U1	0.615933 J1	0.9952	< 0.083 U1	< 0.68 U1	0.019	0.00793 J1	< 0.29 U1	1.81763 J1	< 0.86 U1
9/30/2016	Background	< 0.93 U1	2.96797 J1	141	0.382874 J1	< 0.07 U1	5	0.850408 J1	1.38	< 0.083 U1	3.38434 J1	0.014	0.01773 J1	< 0.29 U1	1.02629 J1	< 0.86 U1
10/19/2016	Background	< 0.93 U1	< 1.05 U1	114	0.311247 J1	< 0.07 U1	0.412131 J1	0.649606 J1	1.141	< 0.083 U1	< 0.68 U1	0.008	0.00534 J1	1.39872 J1	2.03168 J1	1.25062 J1
12/12/2016	Background	< 0.93 U1	< 1.05 U1	72	0.34133 J1	< 0.07 U1	< 0.23 U1	0.424105 J1	0.719	< 0.083 U1	< 0.68 U1	0.008	0.01521 J1	< 0.29 U1	1.85825 J1	< 0.86 U1
1/17/2017	Background	< 0.93 U1	< 1.05 U1	410	0.0366913 J1	< 0.07 U1	< 0.23 U1	0.480125 J1	3.009	< 0.083 U1	< 0.68 U1	0.000275956 J1	< 0.005 U1	< 0.29 U1	4.04737 J1	< 0.86 U1
2/23/2017	Background	< 0.93 U1	< 1.05 U1	488	< 0.02 U1	< 0.07 U1	< 0.23 U1	0.765099 J1	4.309	< 0.083 U1	< 0.68 U1	0.001	< 0.005 U1	< 0.29 U1	< 0.99 U1	< 0.86 U1
6/07/2017	Background	< 0.93 U1	1.14 J1	93.46	0.37 J1	< 0.07 U1	0.66 J1	0.77 J1	0.676	< 0.083 U1	< 0.68 U1	0.00902	0.007 J1	< 0.29 U1	2.1 J1	< 0.86 U1
5/24/2018	Assessment	3.17 J1	< 1.05 U1	79.9	0.39 J1	< 0.07 U1	< 0.23 U1	0.35 J1	1.983	< 0.083 U1	< 0.68 U1	0.00814	0.006 J1	< 0.29 U1	1.38 J1	< 0.86 U1
8/14/2018	Assessment	0.03 J1	0.21	63.0	0.482	0.02	0.160	0.797	1.102	< 0.083 U1	0.238	0.00708	0.013 J1	0.21	1.7	0.03 J1
2/20/2019	Assessment	0.16	0.46	457	0.09 J1	0.01 J1	0.306	0.399	3.159	0.24	0.124	0.00155	< 0.005 U1	1 J1	0.7	< 0.1 U1
5/30/2019	Assessment	0.16	0.60	512	0.244	0.01 J1	0.1 J1	0.756	2.717	0.29	0.197	< 0.009 U1	< 0.005 U1	2.43	1.4	< 0.1 U1
7/24/2019	Assessment	0.08 J1	0.39	245	0.540	0.02 J1	0.1 J1	0.789	1.819	0.106 J1	0.1 J1	0.00557	< 0.005 U1	2 J1	3.4	< 0.1 U1
2/17/2020	Assessment	0.33	0.49	303	0.07 J1	0.02 J1	0.1 J1	0.28	2.665	0.31	0.1 J1	0.00105	< 0.002 U1	1 J1	2.3	< 0.1 U1
5/20/2020	Assessment	0.15	0.53	394	0.270	0.02 J1	0.1 J1	0.490	2.312	0.20	0.1 J1	0.00301	< 0.002 U1	2 J1	2.8	< 0.1 U1
10/14/2020	Assessment	< 0.1 U1	0.3 J1	84.7	0.984	< 0.05 U1	0.9 J1	2.12	1.552	0.25	0.3 J1	0.00932	0.003 J1	< 2 U1	5.3	< 0.5 U1
2/23/2021	Assessment	0.24	0.74	338	0.136	0.03 J1	0.338	0.477	1.737	0.31	0.852	0.00155	< 0.002 U1	1 J1	2.5	< 0.1 U1
6/02/2021	Assessment	0.18	0.66	349	0.088	0.01 J1	0.32	0.474	2.15	0.30	0.09 J1	0.00052	0.002 J1	4.8	1.26	< 0.04 U1
10/20/2021	Assessment	0.04 J1	0.20	86.1	0.932	0.026	0.33	2.44	0.99	0.22	0.23	0.00756	0.003 J1	< 0.1 U1	7.39	< 0.04 U1
6/28/2022	Assessment	0.03 J1	0.26	85.4	0.995	0.030	0.37	2.34	3.69	0.22	0.33	0.00855	0.002 J1	< 0.1 U1	8.35	0.05 J1
11/01/2022	Assessment	0.03 J1	0.19	78.9	0.620	0.024	0.35	1.17	2.01	0.14	0.13 J1	0.00818	0.002 J1	< 0.1 U1	5.51	< 0.04 U1
6/06/2023	Assessment	0.041 J1	0.21	83.4	1.11	0.034	0.35	2.67	0.95	0.24	0.37	0.00805	0.002 J1	< 0.1 U1	10.1	0.04 J1
10/04/2023	Assessment	0.029 J1	0.19	80.0	1.06	0.027	0.38	2.25	1.86	0.20	0.44	0.0103	0.002 J1	< 0.1 U1	9.26	0.05 J1
4/01/2024	Assessment	0.073 J1	0.26	190 M1	0.524	0.032	0.28 J1	1.53	2.39	0.23	0.14 J1	0.00378	< 0.002 U1	0.3 J1	7.67	0.03 J1
9/10/2024	Assessment	0.029 J1	0.19	83.9	2.2 J1	0.039	0.44	4.72	4.70	0.43	0.21	0.011 J1	0.002 J1	< 0.1 U1	11.3	0.06 J1
4/29/2025	Assessment	0.105	0.16	110	1.31	0.049	0.43	3.76	2.92	0.68	4.61	0.00851	< 0.002 U1	< 0.1 U1	10.9	0.04 J1
9/04/2025	Assessment	0.04 J1	0.19	72.5	2.03	0.045	0.80	5.66	3.64	0.65	0.31	0.00885	0.006	0.87	10.3	0.10 J1

Table 1. Groundwater Data Summary: AD-5
Welsh - PBAP
Appendix III Constituents

Collection Date	Monitoring Program	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	Total Dissolved Solids
		mg/L	mg/L	mg/L	mg/L	S.U.	mg/L	mg/L
5/31/2016	Background	0.03	36.9	15	0.3469 J1	6.4	123	337
7/28/2016	Background	0.04	44.7	16	< 0.083 U1	5.4	163	360
9/30/2016	Background	0.04	46.3	15	0.2436 J1	5.3	190	416
10/20/2016	Background	0.05	50.7	14	< 0.083 U1	5.9	267	448
12/13/2016	Background	0.05	49.6	13	< 0.083 U1	6.2	233	484
1/17/2017	Background	0.04	49.8	14	< 0.083 U1	6.3	234	438
2/23/2017	Background	0.04	33	15	< 0.083 U1	5.5	127	286
6/07/2017	Background	0.05281	49.7	14	< 0.083 U1	6.0	82	300
10/06/2017	Detection	0.04322	33.1	16	< 0.083 U1	5.6	82	258
5/24/2018	Assessment	0.05007	28.1	22	< 0.083 U1	6.2	60	242
8/15/2018	Assessment	0.050	40.5	19	< 0.083 U1	6.2	240	428
2/21/2019	Assessment	0.033	33.9	24.7	0.21	5.4	46.5	220
5/30/2019	Assessment	0.03 J1	30.0	22.3	0.29	6.3	51.3	238
7/24/2019	Assessment	0.04 J1	41.1	18	0.112 J1	6.3	90	354
2/17/2020	Assessment	0.03 J1	39.8	19.8	0.22	5.5	43.7	248
5/20/2020	Assessment	0.03 J1	40.2	22.3	0.18	6.8	55.5	264
10/14/2020	Assessment	0.04 J1	36.6	18.8	0.18	6.5	148	338
2/23/2021	Assessment	0.03 J1	30.9	--	0.23	6.0	--	--
6/02/2021	Assessment	0.027 J1	24.4	19.6	0.21	5.8	53.8	220
10/20/2021	Assessment	0.038 J1	38.4	17.4	0.17	5.6	155	370
6/28/2022	Assessment	0.048 J1	32.9	15.3	0.15	5.9	146	310
11/01/2022	Assessment	0.041 J1	38.6	16.9	0.16	5.9	185	380
6/06/2023	Assessment	0.030 J1	26.5	16.1	0.15	5.8	114	280
10/04/2023	Assessment	0.042 J1	35.2	17.5	0.17	6.6	132	290
4/02/2024	Assessment	0.039 J1	26.0	32.9	0.18	5.7	41.4	210
9/10/2024	Assessment	0.039 J1	33.2	22.5	0.16	6.3	114	310
4/29/2025	Assessment	0.027 J1	22.5	24.3	0.20	5.5	64.8	220
9/02/2025	Assessment	--	--	--	--	5.6	--	--
9/03/2025	Assessment	0.076	42.2	17.1	0.21	--	103	290

Table 1. Groundwater Data Summary: AD-5
Welsh - PBAP
Appendix IV Constituents

Collection Date	Monitoring Program	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	pCi/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L
5/31/2016	Background	< 0.93 U1	< 1.05 U1	57	0.149801 J1	0.0765156 J1	0.555038 J1	14	1.634	0.3469 J1	< 0.68 U1	0.135	0.01135 J1	< 0.29 U1	< 0.99 U1	< 0.86 U1
7/28/2016	Background	2.05116 J1	2.90819 J1	93	0.518653 J1	0.502155 J1	0.411466 J1	15	4.75	< 0.083 U1	< 0.68 U1	0.191	0.01516 J1	< 0.29 U1	1.08901 J1	< 0.86 U1
9/30/2016	Background	< 0.93 U1	4.7609 J1	87	0.251584 J1	< 0.07 U1	0.90676 J1	14	3.33	0.2436 J1	< 0.68 U1	0.186	< 0.005 U1	< 0.29 U1	< 0.99 U1	< 0.86 U1
10/20/2016	Background	< 0.93 U1	< 1.05 U1	70	0.08781 J1	0.107488 J1	0.248085 J1	9	2.319	< 0.083 U1	< 0.68 U1	0.225	< 0.005 U1	1.36984 J1	< 0.99 U1	< 0.86 U1
12/13/2016	Background	< 0.93 U1	1.15381 J1	53	0.164529 J1	0.203546 J1	0.747921 J1	13	2.182	< 0.083 U1	< 0.68 U1	0.199	0.00802 J1	< 0.29 U1	< 0.99 U1	< 0.86 U1
1/17/2017	Background	< 0.93 U1	< 1.05 U1	47	0.0574718 J1	0.180502 J1	< 0.23 U1	12	1.023	< 0.083 U1	< 0.68 U1	0.239	< 0.005 U1	< 0.29 U1	< 0.99 U1	< 0.86 U1
2/23/2017	Background	< 0.93 U1	< 1.05 U1	42	0.0306858 J1	< 0.07 U1	< 0.23 U1	13	1.788	< 0.083 U1	< 0.68 U1	0.166	< 0.005 U1	< 0.29 U1	< 0.99 U1	< 0.86 U1
6/07/2017	Background	< 0.93 U1	3.85 J1	87.7	0.08 J1	0.39 J1	0.28 J1	11.93	2.32	< 0.083 U1	< 0.68 U1	0.124	< 0.005 U1	< 0.29 U1	< 0.99 U1	< 0.86 U1
5/24/2018	Assessment	< 0.93 U1	< 1.05 U1	71.16	< 0.02 U1	0.23 J1	0.8 J1	14.24	1.946	< 0.083 U1	< 0.68 U1	0.121	< 0.005 U1	< 0.29 U1	< 0.99 U1	< 0.86 U1
8/15/2018	Assessment	0.01 J1	1.69	63.7	0.055	0.008 J1	0.072	11.4	0.316	< 0.083 U1	0.079	0.147	< 0.005 U1	0.13	0.08 J1	< 10 U1
2/21/2019	Assessment	0.02 J1	1.59	69.4	0.08 J1	< 0.01 U1	0.432	8.58	1.267	0.21	0.147	0.0807	< 0.005 U1	< 0.4 U1	0.1 J1	< 0.1 U1
5/30/2019	Assessment	< 0.02 U1	3.05	60.5	0.08 J1	< 0.01 U1	0.06 J1	11.8	1.431	0.29	0.05 J1	0.104	0.006 J1	< 0.4 U1	0.05 J1	< 0.1 U1
7/24/2019	Assessment	< 0.02 U1	2.48	77.4	0.05 J1	< 0.01 U1	0.05 J1	8.38	2.533	0.112 J1	< 0.05 U1	0.108	< 0.005 U1	< 0.4 U1	0.06 J1	< 0.1 U1
2/17/2020	Assessment	0.03 J1	2.17	109	0.09 J1	0.02 J1	0.336	4.52	2.393	0.22	0.227	0.0732	< 0.002 U1	0.9 J1	0.2	< 0.1 U1
5/20/2020	Assessment	< 0.02 U1	1.78	93.1	0.05 J1	0.01 J1	0.1 J1	7.65	1.612	0.18	0.07 J1	0.0740	< 0.002 U1	< 0.4 U1	0.09 J1	< 0.1 U1
10/14/2020	Assessment	< 0.02 U1	6.28	71.7	0.09 J1	< 0.01 U1	0.09 J1	14.9	2.70	0.18	0.05 J1	0.134	< 0.002 U1	< 0.4 U1	0.1 J1	< 0.1 U1
2/23/2021	Assessment	< 0.02 U1	2.06	68.3	0.03 J1	< 0.01 U1	0.1 J1	6.31	1.397	0.23	< 0.05 U1	0.0705	< 0.002 U1	< 0.4 U1	0.03 J1	< 0.1 U1
6/02/2021	Assessment	< 0.02 U1	1.72	49.3	0.018 M1, J1	< 0.004 U1	0.26	10.5	2.47	0.21	< 0.05 U1	0.0764 M1	< 0.002 U1	0.1 J1	< 0.09 U1	< 0.04 U1
10/20/2021	Assessment	< 0.02 U1	1.44	53.2	0.018 J1	< 0.004 U1	0.23	6.85	2.68	0.17	< 0.05 U1	0.133 M1	< 0.002 U1	< 0.1 U1	< 0.09 U1	< 0.04 U1
6/28/2022	Assessment	< 0.02 U1	3.01	51.8	0.032 J1	< 0.004 U1	0.22	12.8	2.06	0.15	< 0.05 U1	0.161	< 0.002 U1	0.1 J1	< 0.09 U1	0.05 J1
11/01/2022	Assessment	< 0.02 U1	2.77	63.2	0.046 J1	< 0.004 U1	0.43	15.1	3.88	0.16	< 0.05 U1	0.174	< 0.002 U1	< 0.1 U1	< 0.09 U1	< 0.04 U1
6/06/2023	Assessment	0.010 J1	4.30	45.5	0.055	< 0.004 U1	0.24 J1	9.47	1.72	0.15	< 0.05 U1	0.106	< 0.002 U1	< 0.1 U1	0.06 J1	< 0.02 U1
10/04/2023	Assessment	< 0.008 U1	2.94	63.9	0.049 J1	< 0.004 U1	0.30	12.8	3.57	0.17	< 0.05 U1	0.143	< 0.002 U1	< 0.1 U1	0.05 J1	< 0.02 U1
4/02/2024	Assessment	0.015 J1	2.94	78.4	0.063	0.007 J1	0.26 J1	11.5	2.34	0.18	0.06 J1	0.0753	< 0.002 U1	0.1 J1	0.08 J1	0.03 J1
9/10/2024	Assessment	< 0.008 U1	1.26	62.3	< 0.4 U1	0.010 J1	0.31	10.1	2.10	0.16	0.07 J1	0.152	< 0.002 U1	< 0.1 U1	0.06 J1	< 0.02 U1
4/29/2025	Assessment	0.008 J1	2.88	48.1	0.080	< 0.004 U1	0.41	10.3	1.08	0.20	< 0.05 U1	0.0933	< 0.002 U1	< 0.1 U1	< 0.04 U1	< 0.02 U1
9/03/2025	Assessment	< 0.02 U1	2.32	65.3	0.05	< 0.004 U1	0.38	12.3	1.33	0.21	0.08 J1	0.155	< 0.002 U1	0.23 J1	0.05 J1	< 0.02 U1

Table 1. Groundwater Data Summary: AD-8
Welsh - PBAP
Appendix III Constituents

Collection Date	Monitoring Program	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	Total Dissolved Solids
		mg/L	mg/L	mg/L	mg/L	S.U.	mg/L	mg/L
5/31/2016	Background	1.46	32.6	36	0.6507 J1	6.9	217	524
7/28/2016	Background	1.44	25.9	26	0.485 J1	5.4	202	469
9/29/2016	Background	1.51	24.3	28	0.4912 J1	7.7	186	432
10/20/2016	Background	1.54	25.9	30	0.6234 J1	6.1	184	424
12/12/2016	Background	1.53	23.6	27	0.5355 J1	5.6	168	442
1/19/2017	Background	1.53	18.7	24	0.5574 J1	6.2	153	352
2/22/2017	Background	1.67	19.3	22	< 0.083 U1	6.8	163	356
6/06/2017	Background	1.39	17.4	22	0.6628 J1	5.6	151	368
10/05/2017	Detection	1.49	14.9	20	< 0.083 U1	6.7	128	284
1/04/2018	Detection	1.47	--	--	--	--	--	--
5/23/2018	Assessment	--	--	--	0.501 J1	6.2	--	--
8/15/2018	Assessment	--	--	--	--	6.8	--	--
9/17/2018	Assessment	1.30	15.0	24	--	--	122	288
2/05/2019	Assessment	2.55	19.7	22.8	0.72	5.4	153	--
2/21/2019	Assessment	1.47	17.6	23.2	0.66	6.4	163	352
4/30/2019	Assessment	1.21	--	--	--	6.9	--	--
5/29/2019	Assessment	1.07	16.9	19.5	0.89	5.5	150	324
7/23/2019	Assessment	1.21	20.8	15	0.559 J1	6.6	145	392
2/17/2020	Assessment	1.25	14.6	17.0	0.67	6.5	159	344
5/19/2020	Assessment	1.23	15.1	16.5	0.66	6.4	149	336
7/22/2020	Assessment	1.14	--	--	--	6.6	--	--
10/12/2020	Assessment	1.10	17.2	13.6	0.88	6.8	138	298
2/23/2021	Assessment	1.18	14.8	--	0.69	6.1	--	--
6/01/2021	Assessment	1.10	15.3	14.8	0.73	5.3	162	330
10/19/2021	Assessment	1.10	17.2	13.7	0.9	5.5	139	300
3/01/2022	Assessment	1.16	18.7	15.9	0.97	5.9	138	260
6/27/2022	Assessment	1.15	19.5	15.9	0.82	5.9	156	330
10/31/2022	Assessment	1.08	22.3	20.9	0.93	6.1	141	280
2/06/2023	Assessment	1.16	24.6 M1	19.5	0.72	6.3	182	370
6/05/2023	Assessment	0.932	19.3	21.1	0.86	6.1	155	300
10/03/2023	Assessment	1.06	18.9	21.5	0.94	6.7	137	310
2/26/2024	Assessment	1.05	17.8	22.4	0.82	6.5	145	300
4/01/2024	Assessment	0.989	18.0	22.9	0.75	6.6	146	300
9/09/2024	Assessment	0.996	22.4	19.4	0.87	6.7	150	300
2/10/2025	Assessment	1.09	16.7	19.7	0.94	6.7	138	280
4/28/2025	Assessment	1.05	18.4 M1	19.3	1.01	6.5	143	290
9/03/2025	Assessment	0.964	20.7	16.3	1.02	5.8	141	120

Table 1. Groundwater Data Summary: AD-8
Welsh - PBAP
Appendix IV Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	pCi/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L
5/31/2016	Background	< 0.93 U1	1.06251 J1	34	0.114491 J1	< 0.07 U1	2	7	1.046	0.6507 J1	< 0.68 U1	0.122	0.02103 J1	1.01326 J1	1.37017 J1	1.18455 J1
7/28/2016	Background	1.46141 J1	< 1.05 U1	26	0.171642 J1	< 0.07 U1	0.751164 J1	9	1.584	0.485 J1	< 0.68 U1	0.098	0.00859 J1	1.48301 J1	1.96333 J1	< 0.86 U1
9/29/2016	Background	< 0.93 U1	< 1.05 U1	23	< 0.02 U1	< 0.07 U1	0.51348 J1	7	6.30	0.4912 J1	< 0.68 U1	0.111	< 0.005 U1	< 0.29 U1	< 0.99 U1	< 0.86 U1
10/20/2016	Background	< 0.93 U1	< 1.05 U1	24	0.028758 J1	< 0.07 U1	0.617826 J1	7	0.3449	0.6234 J1	< 0.68 U1	0.135	< 0.005 U1	0.838863 J1	< 0.99 U1	1.64377 J1
12/12/2016	Background	< 0.93 U1	< 1.05 U1	21	< 0.02 U1	< 0.07 U1	< 0.23 U1	7	1.083	0.5355 J1	< 0.68 U1	0.11	0.01007 J1	< 0.29 U1	< 0.99 U1	< 0.86 U1
1/19/2017	Background	< 0.93 U1	< 1.05 U1	20	< 0.02 U1	< 0.07 U1	< 0.23 U1	6	0.823	0.5574 J1	< 0.68 U1	0.094	< 0.005 U1	< 0.29 U1	< 0.99 U1	< 0.86 U1
2/22/2017	Background	< 0.93 U1	< 1.05 U1	19	< 0.02 U1	< 0.07 U1	< 0.23 U1	6	0.536	< 0.083 U1	< 0.68 U1	0.092	< 0.005 U1	< 0.29 U1	< 0.99 U1	< 0.86 U1
6/06/2017	Background	< 0.93 U1	< 1.05 U1	19.08	< 0.02 U1	< 0.07 U1	< 0.23 U1	3.86 J1	1.0735	0.6628 J1	< 0.68 U1	0.09491	0.008 J1	< 0.29 U1	< 0.99 U1	< 0.86 U1
5/23/2018	Assessment	3.19 J1	< 1.05 U1	22.12	< 0.02 U1	< 0.07 U1	< 0.23 U1	3.19 J1	0.3366	0.501 J1	< 0.68 U1	0.0956	< 0.005 U1	< 0.29 U1	1.75 J1	< 0.86 U1
8/15/2018	Assessment	0.01 J1	0.31	21.2	0.008 J1	0.02 J1	0.050	5.36	3.44	--	0.039	0.0555	--	0.16	0.07 J1	0.129
2/21/2019	Assessment	< 0.02 U1	0.57	28.1	0.03 J1	0.03 J1	0.456	2.88	0.417	0.66	0.223	0.0911	< 0.005 U1	< 0.4 U1	0.1 J1	< 0.1 U1
5/29/2019	Assessment	< 0.02 U1	0.37	30.3	< 0.02 U1	0.02 J1	0.1 J1	6.03	0.911	0.89	0.07 J1	0.067	< 0.005 U1	< 0.4 U1	0.06 J1	0.1 J1
7/23/2019	Assessment	< 0.02 U1	0.41	31.0	< 0.02 U1	0.02 J1	0.09 J1	7.07	0.72	0.559 J1	0.08 J1	0.0641	< 0.005 U1	< 0.4 U1	0.08 J1	0.1 J1
2/17/2020	Assessment	< 0.02 U1	0.55	38.9	< 0.02 U1	0.05 J1	0.244	1.02	1.257	0.67	0.1 J1	0.124	< 0.002 U1	< 0.4 U1	0.08 J1	< 0.1 U1
5/19/2020	Assessment	< 0.02 U1	0.27	21.1	< 0.02 U1	0.04 J1	0.2 J1	1.17	0.344	0.66	< 0.05 U1	0.0872	< 0.002 U1	< 0.4 U1	0.07 J1	< 0.1 U1
10/12/2020	Assessment	< 0.02 U1	0.30	25.9	< 0.02 U1	0.04 J1	0.06 J1	5.71	0.267	0.88	0.06 J1	0.0615	< 0.002 U1	< 0.4 U1	0.08 J1	0.1 J1
2/23/2021	Assessment	< 0.02 U1	0.31	24.2	< 0.1 U1	0.03 J1	0.1 J1	0.899	0.544	0.69	0.06 J1	0.104	< 0.002 U1	< 0.4 U1	< 0.03 U1	< 0.1 U1
6/01/2021	Assessment	< 0.02 U1	0.37	47.9	0.01 J1	0.029	0.28	1.04	0.69	0.73	0.07 J1	0.0818	< 0.002 U1	< 0.1 U1	< 0.09 U1	0.05 J1
10/19/2021	Assessment	< 0.02 U1	0.25	23.3	< 0.01 U1	0.021	0.27	4.13	1.15	0.9	< 0.05 U1	0.0690	< 0.002 U1	< 0.1 U1	< 0.09 U1	0.11 J1
3/01/2022	Assessment	< 0.02 U1	0.27	23.6	< 0.04 U1	0.018 J1	0.23	5.10	1.31	0.97	< 0.05 U1	0.0654	< 0.002 Q1, U1	< 0.1 U1	< 0.09 U1	0.13 J1
6/27/2022	Assessment	< 0.02 U1	0.25	26.1	< 0.007 U1	0.018 J1	0.41	3.15	1.39	0.82	0.07 J1	0.0777	< 0.002 U1	< 0.1 U1	< 0.09 U1	0.11 J1
10/31/2022	Assessment	< 0.02 U1	0.25	27.8	0.01 J1	0.038	0.31	8.92	1.10	0.93	< 0.05 U1	0.0559	< 0.002 U1	0.2 J1	< 0.09 U1	0.15 J1
2/06/2023	Assessment	< 0.02 U1	0.28	32.5	0.021 J1	0.031	0.23	5.08	3.47	0.72	0.05 J1	0.0821	< 0.002 U1	< 0.1 U1	< 0.09 U1	0.10 J1
6/05/2023	Assessment	0.012 J1	0.24	25.9	0.011 J1	0.020	0.27 J1	3.65	0.68	0.86	0.12 J1	0.0664	< 0.002 U1	< 0.1 U1	0.07 J1	0.10 J1
10/03/2023	Assessment	0.009 J1	0.21	24.2	< 0.007 U1	0.020	0.40	3.95	1.24	0.94	< 0.05 U1	0.0732	< 0.002 U1	< 0.1 U1	0.05 J1	0.10 J1
2/26/2024	Assessment	0.011 J1	0.22	32.6	< 0.007 U1	0.023	0.24 J1	2.04	0.42	0.82	< 0.05 U1	0.0703	< 0.002 U1	< 0.1 U1	< 0.04 U1	0.10 J1
4/01/2024	Assessment	0.009 J1	0.22	27.4	< 0.007 U1	0.026	0.22 J1	3.16	0.79	0.75	< 0.05 U1	0.0688	< 0.002 U1	< 0.1 U1	0.05 J1	0.09 J1
9/09/2024	Assessment	< 0.008 U1	0.24	30.0	0.008 J1	0.017 J1	0.29 J1	5.74	1.27	0.87	< 0.05 U1	0.0713	< 0.002 U1	< 0.1 U1	0.06 J1	0.13 J1
2/10/2025	Assessment	0.013 J1	0.21	23.6	< 0.07 U1	0.027	0.25 J1	2.72	1.68	0.94	< 0.05 U1	0.0791	< 0.002 U1	0.2 J1	< 0.04 U1	0.13 J1
4/28/2025	Assessment	0.011 J1	0.21	24.8	0.008 J1	0.023	0.24 J1	3.47	0.87	1.01	< 0.05 U1	0.0676	< 0.002 U1	< 0.1 U1	< 0.04 U1	0.10 J1
9/03/2025	Assessment	0.02 J1	0.22	26.2	< 0.02 U1	0.023	0.21 J1	6.66	1.33	1.02	< 0.05 U1	0.0538	0.005	< 0.05 U1	0.04 J1	0.13 J1

Table 1. Groundwater Data Summary: AD-9
Welsh - PBAP
Appendix III Constituents

Collection Date	Monitoring Program	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	Total Dissolved Solids
		mg/L	mg/L	mg/L	mg/L	S.U.	mg/L	mg/L
5/31/2016	Background	0.12	229	88	0.4191 J1	6.3	1352	2541
7/28/2016	Background	0.105	255	98	0.4339 J1	5.0	1464	2564
9/29/2016	Background	0.115	220	86	0.304 J1	4.7	1301	2448
10/19/2016	Background	0.109	228	76	0.6227 J1	5.2	1350	2494
12/12/2016	Background	0.108	250	92	< 0.083 U1	5.7	1639	2667
1/19/2017	Background	0.312	91.1	54	< 0.083 U1	5.4	884	1360
2/22/2017	Background	0.1	258	86	< 0.083 U1	5.8	1774	2662
6/06/2017	Background	0.146	191	19	< 0.083 U1	4.6	105	308
10/05/2017	Detection	0.129	9.64	20	< 0.083 U1	5.8	86	248
5/23/2018	Assessment	--	--	--	< 0.083 U1	5.3	--	--
8/15/2018	Assessment	--	--	--	--	5.0	--	--
9/17/2018	Assessment	0.198	230	103	--	--	1910	2694
2/05/2019	Assessment	0.096	133	27.9	0.16	4.2	181	--
2/21/2019	Assessment	1.39	211	89	0.19	5.0	1350	2240
4/30/2019	Assessment	0.07	--	--	--	4.5	--	--
5/29/2019	Assessment	0.06 J1	10.1	44.0	0.16	3.6	503	1758
7/23/2019	Assessment	0.081	222	77	0.5736 J1	6.3	1701	2460
2/17/2020	Assessment	0.12	11.5	19.9	0.15	6.0	100	282
5/19/2020	Assessment	0.066	11.3	44.8	0.1 J1	4.9	536	902
10/12/2020	Assessment	0.100	11.8	18.8	0.19	4.8	100	296
2/23/2021	Assessment	0.219	11.6	--	0.21	4.7	--	--
6/01/2021	Assessment	0.221	12.5	16.7	0.19	4.4	118	300
10/19/2021	Assessment	0.226	11.9	31.8	0.19	4.3	374	700
3/01/2022	Assessment	0.148	12.0	18.3	0.15	4.8	109	300
6/27/2022	Assessment	0.174	109	59.8	0.09 J1	4.8	933	1460
10/31/2022	Assessment	0.109	12.4	16.8	0.17	5.0	122	300
2/06/2023	Assessment	0.337	12.4	15.5	0.17	4.9	137	340
6/06/2023	Assessment	0.083	164	78.3	0.17	5.1	1230	1950
10/03/2023	Assessment	0.168	168	75.4	0.1	5.8	1200	1910
2/26/2024	Assessment	0.180	11.7	15.9	0.16	5.3	115	300
4/02/2024	Assessment	0.109	132	67.3	0.17	5.6	1060	1730
9/08/2024	Assessment	--	--	--	--	5.6	--	--
9/09/2024	Assessment	0.400	14.4	14.6	0.18	--	157	380
2/10/2025	Assessment	0.099	45.6	33.0	0.19	5.7	374	730
4/28/2025	Assessment	0.077	136	60.3	0.10	5.0	913	1500
9/03/2025	Assessment	0.124	79.2	33.8	0.17	4.5	513	310

Table 1. Groundwater Data Summary: AD-9
Welsh - PBAP
Appendix IV Constituents

Collection Date	Monitoring Program	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	pCi/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L
5/31/2016	Background	< 0.93 U1	< 1.05 U1	51	0.999439 J1	1	< 0.23 U1	27	2.945	0.4191 J1	< 0.68 U1	1.32	0.0194 J1	< 0.29 U1	1.04175 J1	< 0.86 U1
7/28/2016	Background	< 0.93 U1	< 1.05 U1	31	0.726564 J1	2	0.262163 J1	22	1.447	0.4339 J1	< 0.68 U1	1.38	0.045	< 0.29 U1	8	< 0.86 U1
9/29/2016	Background	< 0.93 U1	< 1.05 U1	33	0.582852 J1	0.187457 J1	< 0.23 U1	12	3.199	0.304 J1	< 0.68 U1	1.17	0.00739 J1	< 0.29 U1	3.52832 J1	< 0.86 U1
10/19/2016	Background	< 0.93 U1	< 1.05 U1	26	0.478576 J1	0.965032 J1	< 0.23 U1	16	1.311	0.6227 J1	< 0.68 U1	1.44	< 0.005 U1	< 0.29 U1	3.09028 J1	< 0.86 U1
12/12/2016	Background	< 0.93 U1	< 1.05 U1	27	0.481339 J1	2	< 0.23 U1	24	3.00	< 0.083 U1	< 0.68 U1	1.33	0.02123 J1	< 0.29 U1	< 0.99 U1	< 0.86 U1
1/19/2017	Background	< 0.93 U1	< 1.05 U1	98	2	0.693618 J1	< 0.23 U1	42	2.349	< 0.083 U1	< 0.68 U1	0.634	0.00717 J1	< 0.29 U1	< 0.99 U1	1.7755 J1
2/22/2017	Background	< 0.93 U1	< 1.05 U1	22	0.301057 J1	0.680144 J1	< 0.23 U1	24	2.32	< 0.083 U1	< 0.68 U1	1.41	< 0.005 U1	< 0.29 U1	1.06022 J1	1.45295 J1
6/06/2017	Background	< 0.93 U1	< 1.05 U1	42.27	0.77 J1	2.22	< 0.23 U1	24.16	1.586	< 0.083 U1	< 0.68 U1	1	0.006 J1	< 0.29 U1	< 0.99 U1	< 0.86 U1
5/23/2018	Assessment	< 0.93 U1	< 1.05 U1	30.45	0.32 J1	2.88	< 0.23 U1	26.7	2.556	< 0.083 U1	< 0.68 U1	1.2	< 0.005 U1	< 0.29 U1	< 0.99 U1	8.46
8/15/2018	Assessment	< 10 U1	1.68	24.2	0.268	0.06	0.420	11.1	1.864	--	0.262	0.851	--	0.11	0.3	0.062
2/21/2019	Assessment	< 0.02 U1	1.18	52.4	0.474	0.09	0.313	14.8	2.51	0.19	0.08 J1	1.12	0.01 J1	< 0.4 U1	0.3	0.1 J1
5/29/2019	Assessment	< 0.02 U1	0.20	49.7	0.941	0.21	0.346	15.9	1.36	0.16	0.07 J1	0.225	< 0.005 U1	< 0.4 U1	0.2	0.2 J1
7/23/2019	Assessment	< 0.02 U1	1.39	32.1	0.361	0.06	0.2 J1	12.7	1.689	0.5736 J1	0.2 J1	1.11	< 0.005 U1	< 0.4 U1	0.4	< 0.1 U1
2/17/2020	Assessment	< 0.02 U1	0.33	52.8	0.979	0.24	0.608	17.7	1.938	0.15	0.2 J1	0.218	0.002 J1	< 0.4 U1	0.3	0.2 J1
5/19/2020	Assessment	< 0.02 U1	0.25	51.6	0.933	0.24	0.458	16.5	1.854	0.1 J1	0.07 J1	0.160	0.003 J1	< 0.4 U1	0.4	0.2 J1
10/12/2020	Assessment	< 0.02 U1	0.72	55.3	1.27	0.22	0.471	18.6	2.838	0.19	0.349	0.194	0.003 J1	< 0.4 U1	0.3	0.2 J1
2/23/2021	Assessment	< 0.02 U1	0.27	54.9	1.51	0.33	0.373	21.7	1.557	0.21	0.1 J1	0.189	0.003 J1	< 0.4 U1	0.4	0.2 J1
6/01/2021	Assessment	< 0.02 U1	0.21	51.6	1.15	0.353	0.59	20.6	1.74	0.19	0.08 J1	0.141	0.003 J1	< 0.1 U1	0.31 J1	0.22
10/19/2021	Assessment	< 0.02 U1	0.30	50.3	1.36	0.315	0.68	20.6	1.74	0.19	0.1 J1	0.184 P3	0.003 J1	< 0.1 U1	0.34 J1	0.23
3/01/2022	Assessment	< 0.02 U1	0.24	55.3	1.20	0.266	0.74	19.1	3.35	0.15	0.08 J1	0.205	0.003 Q1, J1	< 0.1 U1	0.26 J1	0.22
6/27/2022	Assessment	< 0.02 U1	0.87	49.7	0.780	0.244	0.59	19.5	3.52	0.09 J1	0.27	0.539	< 0.002 U1	< 0.1 U1	0.46 J1	0.22
10/31/2022	Assessment	< 0.02 U1	0.21	52.0	1.14	0.199	1.23	17.1	1.06	0.17	0.08 J1	0.231	0.004 J1	< 0.1 U1	0.27 J1	0.22
2/06/2023	Assessment	< 0.02 U1	0.33	49.0	1.60	0.379	0.58	22.1	3.05	0.17	0.18 J1	0.181	0.003 J1	0.1 J1	0.46 J1	0.28
6/06/2023	Assessment	0.008 J1	1.15	39.8	0.502	0.135	0.33	15.8	1.86	0.17	0.12 J1	0.661	< 0.002 U1	< 0.1 U1	0.51	0.14 J1
10/03/2023	Assessment	< 0.008 U1	1.57	37.0	0.788	0.195	0.48	17.4	2.11	0.1	0.47	0.777	< 0.002 U1	< 0.1 U1	0.44 J1	0.16 J1
2/26/2024	Assessment	0.008 J1	0.20	50.6	1.60	0.289	0.67	19.2	1.86	0.16	0.08 J1	0.207	0.003 J1	< 0.1 U1	0.40 J1	0.23
4/02/2024	Assessment	< 0.008 U1	0.83	50.2	0.722	0.224	0.40	19.9	1.35	0.17	0.06 J1	0.576	< 0.002 U1	< 0.1 U1	0.85	0.19 J1
9/09/2024	Assessment	0.010 J1	0.31	50.7	1.76	0.435	0.71	24.9	0.81	0.18	0.08 J1	0.201	0.002 J1	< 0.1 U1	0.61	0.25
2/10/2025	Assessment	0.009 J1	0.28	94.2	0.79	0.188	0.68	17.2	2.82	0.19	0.07 J1	0.287	0.004 J1	< 0.1 U1	0.31 J1	0.20
4/28/2025	Assessment	0.015 J1	0.67	52.1	0.974	0.267	0.54	18.9	3.62	0.10	0.08 J1	0.572	< 0.002 U1	< 0.1 U1	0.62	0.23
9/03/2025	Assessment	< 0.02 U1	0.61	48.7	1.00	0.256	0.56	20.1	2.55	0.17	0.09 J1	0.444	0.009	< 0.05 U1	0.72	0.19 J1

Table 1. Groundwater Data Summary: AD-15
Welsh - PBAP
Appendix III Constituents

Collection Date	Monitoring Program	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	Total Dissolved Solids
		mg/L	mg/L	mg/L	mg/L	S.U.	mg/L	mg/L
5/31/2016	Background	0.329	5.09	30	< 0.083 U1	5.6	24	188
7/28/2016	Background	0.407	3.83	34	< 0.083 U1	4.8	28	196
9/29/2016	Background	0.36	13.7	28	0.2621 J1	4.6	23	367
10/19/2016	Background	0.152	4.57	26	< 0.083 U1	4.4	17	152
12/12/2016	Background	0.334	3.6	26	< 0.083 U1	4.7	19	204
1/19/2017	Background	0.413	3.35	32	< 0.083 U1	5.8	25	176
2/22/2017	Background	0.1	4.21	20	< 0.083 U1	4.6	8	88
6/06/2017	Background	0.321	3.57	27	< 0.083 U1	4.8	19	184
10/05/2017	Detection	0.395	3.08	30	< 0.083 U1	5.9	21	200
5/23/2018	Assessment	--	--	--	< 0.083 U1	4.8	--	--
8/15/2018	Assessment	--	--	--	--	4.6	--	--
9/17/2018	Assessment	0.341	3.04	37	--	--	24	174
2/05/2019	Assessment	0.03 J1	2.18	20.6	0.06	3.9	0.2 J1	--
2/21/2019	Assessment	0.169	2.67	28.2	0.09	5.0	10.6	150
5/29/2019	Assessment	< 0.02 U1	2.97	21.4	0.06 J1	4.9	2.1	34
7/23/2019	Assessment	0.306	3.45	28	0.086 J1	3.2	18	214
2/17/2020	Assessment	0.419	3.64	34.3	0.11	4.5	21.5	234
5/19/2020	Assessment	0.376	3.37	34.1	0.07	5.3	19.0	216
10/12/2020	Assessment	0.334	2.99	30.4	0.10	5.1	17.1	170
2/23/2021	Assessment	0.03 J1	2.30	--	0.08	4.4	--	--
6/01/2021	Assessment	0.213	3.0	28.4	0.10	4.4	11.4	150
10/19/2021	Assessment	0.218	2.7	28.0	0.09	4.4	10.3	140
3/01/2022	Assessment	0.076	2.63	25.0	0.05 J1	4.4	4.29	80
6/27/2022	Assessment	0.329	3.25	30.9	0.09	4.5	18.9	170
10/31/2022	Assessment	0.093	2.57	26.2	0.07	4.4	4.62	90
2/06/2023	Assessment	0.174	2.70	27.5	0.06	4.3	9.85	130
6/05/2023	Assessment	0.194	2.92	28.6	0.08	4.3	12.4	140
10/03/2023	Assessment	0.179	2.47	27.5	0.06	4.9	9.9	140
2/26/2024	Assessment	0.209	2.81	28.0	0.05 J1	4.1	10.8	140
4/01/2024	Assessment	0.231	3.28	29.2	0.08	4.4	13	130
9/09/2024	Assessment	0.171	2.66	27.8	0.06	3.8	9.1	130
2/10/2025	Assessment	0.035 J1	2.57	24.8	0.06	4.5	1.2	70
4/28/2025	Assessment	0.108	3.49	26.7	0.06	4.4	5.4	110
9/02/2025	Assessment	0.106	2.98	27.6	0.06	4.4	6.63	420

Table 1. Groundwater Data Summary: AD-15
Welsh - PBAP
Appendix IV Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	pCi/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L
5/31/2016	Background	< 0.93 U1	12	215	0.959793 J1	0.351465 J1	17	11	2.284	< 0.083 U1	7	0.017	0.054	1.77432 J1	3.46337 J1	< 0.86 U1
7/28/2016	Background	< 0.93 U1	6	124	0.362598 J1	0.111427 J1	4	6	1.322	< 0.083 U1	< 0.68 U1	0.021	0.01646 J1	0.586779 J1	1.19442 J1	< 0.86 U1
9/29/2016	Background	< 0.93 U1	131	1930	15	7	280	134	9.92	0.2621 J1	161	0.149	0.707	3.60313 J1	14	< 0.86 U1
10/19/2016	Background	< 0.93 U1	23	415	2	0.575938 J1	54	19	3.567	< 0.083 U1	22	0.036	0.1	1.54555 J1	1.17613 J1	1.55993 J1
12/12/2016	Background	< 0.93 U1	6	184	0.695316 J1	0.246456 J1	15	10	3.36	< 0.083 U1	3.96087 J1	0.013	0.026	0.463544 J1	1.32943 J1	< 0.86 U1
1/19/2017	Background	< 0.93 U1	6	153	0.449612 J1	< 0.07 U1	9	7	2.386	< 0.083 U1	2.87518 J1	0.008	0.01932 J1	< 0.29 U1	< 0.99 U1	< 0.86 U1
2/22/2017	Background	< 0.93 U1	20	353	2	0.319406 J1	49	20	2.261	< 0.083 U1	19	0.025	0.058	1.42695 J1	< 0.99 U1	< 0.86 U1
6/06/2017	Background	< 0.93 U1	8.54	166	0.61 J1	0.48 J1	12.35	8.44	2.491	< 0.083 U1	2.98 J1	0.0108	0.022 J1	< 0.29 U1	2.71 J1	< 0.86 U1
5/23/2018	Assessment	< 0.93 U1	2.56 J1	102	0.03 J1	0.1 J1	2.63	4.74 J1	1.46	< 0.083 U1	< 0.68 U1	0.00562	< 0.005 U1	< 0.29 U1	1.54 J1	1.37 J1
8/15/2018	Assessment	0.03 J1	3.26	85.2	0.116	0.01 J1	0.481	3.71	1.076	--	0.438	0.00338	--	0.05 J1	0.9	0.090
2/21/2019	Assessment	< 0.02 U1	2.21	76.6	0.208	0.01 J1	0.225	2.9	0.841	0.09	0.104	0.00294	< 0.005 U1	< 0.4 U1	0.4	< 0.1 U1
5/29/2019	Assessment	0.05 J1	2.95	203	1.50	0.08	9.31	5.49	3.55	0.06 J1	9.85	0.01 J1	0.081	< 0.4 U1	5.1	0.1 J1
7/23/2019	Assessment	0.03 J1	2.10	113	0.573	0.04 J1	2.26	5.41	2.245	0.086 J1	2.87	0.00414	0.025	< 0.4 U1	1.6	< 0.1 U1
2/17/2020	Assessment	0.09 J1	9.12	115	0.39	0.02 J1	6.01	4.08	2.546	0.11	4.8	0.00509	0.013	3.32	1.7	0.1 J1
5/19/2020	Assessment	0.02 J1	3.94	80.3	0.09 J1	0.01 J1	0.2 J1	3.28	1.115	0.07	0.09 J1	0.00383	< 0.002 U1	< 0.4 U1	0.7	< 0.1 U1
10/12/2020	Assessment	0.03 J1	4.90	83.4	0.146	0.01 J1	0.425	3.93	1.604	0.10	0.417	0.00393	0.003 J1	< 0.4 U1	0.7	< 0.1 U1
2/23/2021	Assessment	< 0.02 U1	1.39	72.4	0.190	0.02 J1	0.1 J1	2.61	1.021	0.08	0.08 J1	0.00167	< 0.002 U1	< 0.4 U1	0.2	< 0.1 U1
6/01/2021	Assessment	< 0.02 U1	3.04	76.9	0.138	0.015 J1	0.31	2.73	1.45	0.10	< 0.05 U1	0.00330	< 0.002 U1	< 0.1 U1	0.43 J1	0.05 J1
10/19/2021	Assessment	< 0.02 U1	3.72	73.1	0.143	0.009 J1	0.31	2.84	2.02	0.09	0.07 J1	0.00435	< 0.002 U1	< 0.1 U1	0.55	0.06 J1
3/01/2022	Assessment	< 0.02 U1	1.89	75.1	0.207	0.011 J1	0.55	2.76	2.01	0.05 J1	0.09 J1	0.00208	0.003 Q1, J1	< 0.1 U1	0.29 J1	0.05 J1
6/27/2022	Assessment	< 0.02 U1	3.03	78.5	0.088	0.015 J1	0.38	3.54	2.15	0.09	0.05 J1	0.00573	< 0.002 U1	< 0.1 U1	0.63	0.07 J1
10/31/2022	Assessment	< 0.02 U1	2.55	75.3	0.187	0.015 J1	0.41	2.94	1.67	0.07	0.12 J1	0.00235	< 0.002 U1	< 0.1 U1	0.38 J1	0.05 J1
2/06/2023	Assessment	< 0.02 U1	3.26	73.9	0.162	0.019 J1	0.33	2.77	1.77	0.06	0.15 J1	0.00373	< 0.002 U1	< 0.1 U1	0.45 J1	0.07 J1
6/05/2023	Assessment	0.056 J1	7.67	86.9	0.237	0.024	2.27	3.49	1.37	0.08	1.94	0.00423	0.006	0.1 J1	1.23	0.08 J1
10/03/2023	Assessment	0.014 J1	3.01	69.8	0.139	0.013 J1	0.37	3.06	2.10	0.06	0.08 J1	0.00398	< 0.002 U1	< 0.1 U1	0.54	0.06 J1
2/26/2024	Assessment	0.016 J1	2.83	73.9	0.138	0.011 J1	0.37	3.18	1.53	0.05 J1	0.06 J1	0.00310	< 0.002 U1	< 0.1 U1	0.57	0.06 J1
4/01/2024	Assessment	0.017 J1	3.29	82.5	0.115	0.012 J1	0.42	3.41	1.31	0.08	0.15 J1	0.00403	< 0.002 U1	< 0.1 U1	0.68	0.06 J1
9/09/2024	Assessment	0.013 J1	3.18	75.1	0.180	0.013 J1	0.35	3.32	0.97	0.06	0.18 J1	0.00403	< 0.002 U1	< 0.1 U1	0.58	0.06 J1
2/10/2025	Assessment	0.012 J1	1.14	67.3	0.22 J1	0.010 J1	0.22 J1	2.69	2.57	0.06	0.07 J1	0.0016 J1	< 0.002 U1	< 0.1 U1	0.17 J1	0.05 J1
4/28/2025	Assessment	0.021 J1	2.13	78.3	0.134	0.010 J1	0.36	3.15	1.57	0.06	0.12 J1	0.00242	< 0.002 U1	< 0.1 U1	0.40 J1	0.06 J1
9/02/2025	Assessment	0.03 J1	2.48	72.7	0.16	0.012 J1	0.33	2.86	2.23	0.06	0.11 J1	0.00317	0.004 J1	< 0.05 U1	0.47 J1	0.06 J1

Table 1. Groundwater Data Summary: AD-17
Welsh - PBAP
Appendix III Constituents

Collection Date	Monitoring Program	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	Total Dissolved Solids
		mg/L	mg/L	mg/L	mg/L	S.U.	mg/L	mg/L
5/26/2016	Background	0.121	200	43	0.4023 J1	7.2	1166	1810
7/27/2016	Background	0.119	195	32	0.4135 J1	5.7	1005	1576
9/30/2016	Background	0.111	191	36	0.3055 J1	6.2	1055	1663
10/20/2016	Background	0.124	194	32	0.583 J1	6.1	1163	1612
12/13/2016	Background	0.135	196	31	0.5399 J1	6.0	1096	1560
1/17/2017	Background	0.101	196	33	< 0.083 U1	5.9	1445	1686
2/22/2017	Background	0.135	189	30	< 0.083 U1	5.7	1055	1628
6/06/2017	Background	0.121	188	30	< 0.083 U1	5.8	1105	1578
10/06/2017	Detection	0.183	183	31	< 0.083 U1	5.9	1090	1548
5/24/2018	Assessment	0.239	193	39	< 0.083 U1	6.3	1067	1836
8/15/2018	Assessment	0.118	187	40	< 0.083 U1	5.6	1168	1748
2/21/2019	Assessment	0.151	207	43.2	0.18	6.9	1060	1722
5/30/2019	Assessment	0.158	202	41.7	< 0.04 U1	6.1	1120	1546
7/24/2019	Assessment	0.113	216	37	0.085 J1	6.0	1127	1864
2/17/2020	Assessment	0.104	184	36.0	0.16	5.9	1070	1750
5/20/2020	Assessment	0.115	250	47.7	0.15	5.7	1190	1890
10/14/2020	Assessment	0.100	185	35.7	0.17	5.4	1060	1720
2/23/2021	Assessment	0.098	168	--	0.17	5.6	--	--
6/02/2021	Assessment	0.124	233	44.9	0.31	5.7	1210	1890
10/20/2021	Assessment	0.104	164	37.3	0.16	5.1	1040	1710
6/28/2022	Assessment	0.112	167	37.0	0.09 J1	5.2	1050	1740
11/01/2022	Assessment	0.097	165	40.3	0.09 J1	5.7	1110	1690
6/06/2023	Assessment	0.10 J1	150	35.6	< 0.05 U1	5.3	1190	1510
10/04/2023	Assessment	0.14 J1	176 M1	37.9	0.06 J1	5.8	1180	1520
4/01/2024	Assessment	0.096	131	31.8	0.13 J1	5.4	950	1280
9/10/2024	Assessment	0.106	172	38.4	< 0.05 U1	5.4	1110	1580 S7
4/29/2025	Assessment	0.106	201	41.4	0.11 J1	6.0	993	1600
9/02/2025	Assessment	0.122	169	38.5	0.13 J1	5.6	1030	1660

Table 1. Groundwater Data Summary: AD-17
Welsh - PBAP
Appendix IV Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	pCi/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L
5/26/2016	Background	< 0.93 U1	1.37501 J1	21	0.173275 J1	2	1	63	1.525	0.4023 J1	< 0.68 U1	0.37	0.032	< 0.29 U1	< 0.99 U1	< 0.86 U1
7/27/2016	Background	1.13716 J1	< 1.05 U1	20	0.307264 J1	4	1	68	2.78	0.4135 J1	< 0.68 U1	0.374	0.02133 J1	1.04115 J1	4.56733 J1	< 0.86 U1
9/30/2016	Background	< 0.93 U1	< 1.05 U1	31	0.175474 J1	0.848199 J1	3	58	2.358	0.3055 J1	< 0.68 U1	0.354	< 0.005 U1	< 0.29 U1	< 0.99 U1	< 0.86 U1
10/20/2016	Background	< 0.93 U1	< 1.05 U1	34	0.200656 J1	2	4	65	2.224	0.583 J1	< 0.68 U1	0.394	< 0.005 U1	0.322249 J1	3.34422 J1	< 0.86 U1
12/13/2016	Background	< 0.93 U1	< 1.05 U1	17	0.0498325 J1	3	0.816224 J1	68	2.384	0.5399 J1	< 0.68 U1	0.323	0.01485 J1	< 0.29 U1	< 0.99 U1	< 0.86 U1
1/17/2017	Background	< 0.93 U1	< 1.05 U1	14	0.0319852 J1	3	68	68	2.436	< 0.083 U1	< 0.68 U1	0.341	< 0.005 U1	< 0.29 U1	< 0.99 U1	< 0.86 U1
2/22/2017	Background	< 0.93 U1	< 1.05 U1	20	0.0665729 J1	2	1	73	2.288	< 0.083 U1	< 0.68 U1	0.331	< 0.005 U1	< 0.29 U1	< 0.99 U1	< 0.86 U1
6/06/2017	Background	< 0.93 U1	< 1.05 U1	10.33	< 0.02 U1	6.06	< 0.23 U1	74.8	1.598	< 0.083 U1	< 0.68 U1	0.329	0.013 J1	< 0.29 U1	< 0.99 U1	< 0.86 U1
5/24/2018	Assessment	< 0.93 U1	< 1.05 U1	9.65	< 0.02 U1	6.46	< 0.23 U1	71.73	1.939	< 0.083 U1	< 0.68 U1	0.308	< 0.005 U1	< 0.29 U1	< 0.99 U1	< 0.86 U1
8/15/2018	Assessment	0.02 J1	1.83	12.8	0.069	0.25	0.604	43.5	2.35	< 0.083 U1	1.10	0.243	0.011 J1	0.35	0.3	0.074
2/21/2019	Assessment	0.08 J1	2.51	120	0.24	0.27	3.34	64.5	2.657	0.18	2.49	0.268	0.007 J1	0.7 J1	0.8	< 0.1 U1
5/30/2019	Assessment	< 0.02 U1	0.41	19.6	0.02 J1	0.03 J1	0.246	51.1	2.508	< 0.04 U1	0.03 J1	0.341	< 0.005 U1	< 0.4 U1	0.06 J1	< 0.1 U1
7/24/2019	Assessment	< 0.02 U1	1.07	14.3	0.130	0.03 J1	0.228	57.7	3.45	0.085 J1	0.263	0.283	< 0.005 U1	< 0.4 U1	0.1 J1	< 0.1 U1
2/17/2020	Assessment	< 0.02 U1	0.72	9.6	0.04 J1	< 0.01 U1	0.08 J1	42.3	3.46	0.16	< 0.05 U1	0.273	< 0.004 U1	< 0.4 U1	< 0.03 U1	< 0.1 U1
5/20/2020	Assessment	< 0.02 U1	0.86	11.4	0.07 J1	0.02 J1	0.231	70.0	2.76	0.15	0.08 J1	0.302	< 0.002 U1	< 0.4 U1	0.09 J1	< 0.1 U1
10/14/2020	Assessment	< 0.02 U1	0.84	10.9	0.04 J1	0.01 J1	0.327	45.4	2.169	0.17	0.2 J1	0.274	< 0.002 U1	< 0.4 U1	0.06 J1	< 0.1 U1
2/23/2021	Assessment	< 0.02 U1	0.61	10.6	0.03 J1	0.03 J1	0.1 J1	41.1	1.433	0.17	0.08 J1	0.249	< 0.002 U1	< 0.4 U1	0.04 J1	< 0.1 U1
6/02/2021	Assessment	< 0.02 U1	0.84	10.9	0.066	0.026	0.38	72.9	2.40	0.31	0.09 J1	0.311	< 0.002 U1	0.2 J1	< 0.09 U1	< 0.04 U1
10/20/2021	Assessment	< 0.02 U1	0.57	10.2	0.035 J1	0.019 J1	0.38	42.9	1.73	0.16	0.07 J1	0.250	< 0.002 U1	< 0.1 U1	< 0.09 U1	0.05 J1
6/28/2022	Assessment	< 0.02 U1	0.53	12.6	0.040 J1	0.011 J1	0.40	41.3	6.54	0.09 J1	0.12 J1	0.267	0.003 J1	0.1 J1	< 0.09 U1	< 0.04 U1
11/01/2022	Assessment	0.02 J1	0.62	12.7	0.073	0.019 J1	0.96	41.9	3.81	0.09 J1	0.27	0.278	0.004 J1	< 0.1 U1	< 0.09 U1	< 0.04 U1
6/06/2023	Assessment	< 0.08 U1	1.1	19.6	0.11 J1	< 0.04 U1	1.1 J1	36.8	1.42	< 0.05 U1	0.7 J1	0.254	0.003 J1	< 1 U1	0.5 J1	< 0.2 U1
10/04/2023	Assessment	< 0.08 U1	0.5 J1	11.8	< 0.07 U1	< 0.04 U1	1.3 J1	41.2	2.05	0.06 J1	< 0.5 U1	0.305 M1	< 0.002 U1	< 1 U1	< 0.4 U1	< 0.2 U1
4/01/2024	Assessment	0.012 J1	0.34	12.7	0.023 J1	0.010 J1	0.31	30.3	1.65	0.13 J1	0.07 J1	0.197	< 0.002 U1	< 0.1 U1	0.32 J1	< 0.02 U1
9/10/2024	Assessment	< 0.008 U1	0.35	14.0	0.035 J1	0.014 J1	0.31	42.6	5.99	< 0.05 U1	0.06 J1	0.254	0.003 J1	< 0.1 U1	< 0.04 U1	< 0.02 U1
4/29/2025	Assessment	0.019 J1	0.81	9.95	0.079	0.007 J1	0.56	61.6	1.30	0.11 J1	0.16 J1	0.285	< 0.002 U1	0.1 J1	0.32 J1	0.02 J1
9/02/2025	Assessment	0.03 J1	0.46	10.6	0.05	0.005 J1	0.47	43.9	3.61	0.13 J1	0.07 J1	0.277	< 0.002 U1	0.16 J1	0.11 J1	< 0.02 U1

Notes:
Combined radium values were calculated from the sum of the reported radium-226 and radium-228 results.
Radium data quality flags were not included. Reported negative radium-226 or radium-228 results were replaced with zero.
--: Not analyzed
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag.
In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.
M1: The associated matrix spike (MS) or matrix spike duplicate (MSD) recovery was outside acceptance limits.
mg/L: milligrams per liter
P3: The precision on the matrix spike duplicate (MSD) was above acceptance limits.
pCi/L: picocuries per liter
Q1: Sample received in inappropriate sample container.
S7: Sample did not achieve constant weight.
SU: standard unit
In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.
µg/L: micrograms per liter

APPENDIX 2

Where applicable, shown in this appendix are the results from statistical analyses, and a description of the statistical analysis method chosen.

Geosyntec consultants

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STATISTICAL ANALYSIS SUMMARY, 2025 1ST SEMIANNUAL EVENT

PRIMARY BOTTOM ASH POND

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Attachment A: Certification by Qualified Professional Engineer

Attachment B: Data Quality Review Memoranda

Attachment C: Statistical Analysis Output

ACRONYMS AND ABBREVIATIONS

CCR	coal combustion residuals
GWPS	groundwater protection standard
LPL	lower prediction limit
mg/L	milligrams per liter
PBAP	Primary Bottom Ash Pond
QA/QC	quality assurance and quality control
SSI	statistically significant increase
SSL	statistically significant level
SU	standard units
TCEQ	Texas Commission on Environmental Quality
UPL	upper prediction limit

1. INTRODUCTION

In accordance with Texas Commission on Environmental Quality (TCEQ) regulations regarding the disposal of coal combustion residuals (CCRs) in landfills and surface impoundments (Title 30 Chapter 352, "CCR rule"), groundwater monitoring has been conducted at the Primary Bottom Ash Pond (PBAP), an existing CCR unit at the Welsh Power Plant in Pittsburg, Texas. Recent groundwater monitoring results were used to identify concentrations of Appendix IV constituents that are above site-specific groundwater protection standards (GWPSs).

Based on detection monitoring conducted in 2017 and 2018, statistically significant increases (SSIs) over background were concluded for boron at the PBAP. An alternative source was not identified at the time, so assessment monitoring was initiated and GWPS were set in accordance with § 352.951(b) (Geosyntec 2018). Two assessment monitoring events were conducted at the PBAP in February and April 2025 in accordance with § 352.951(a). The results of these assessment events are documented in this report.

Before the statistical analyses were conducted, the groundwater data underwent several validation tests, including those for completeness, sample tracking accuracy, transcription errors, and consistent use of measurement units. No data quality issues that would impact data usability were identified.

The monitoring data were submitted to Groundwater Stats Consulting, LLC for statistical analysis. Confidence intervals were calculated for Appendix IV parameters at the compliance wells to assess whether any were present at statistically significant levels (SSLs) above previously established GWPS. No SSLs were identified; however, concentrations of Appendix III parameters remained above background. Certification of the selected statistical methods by a qualified professional engineer is documented in Attachment A.

2. PRIMARY BOTTOM ASH POND EVALUATION

2.1 Data Validation and QA/QC

During the assessment monitoring program in 2025 to date, two sets of samples (February and April 2025) were collected for analysis for all Appendix III and Appendix IV parameters. Samples were collected from each background and compliance well during the April 2025 event, whereas samples were collected only from the compliance well locations during the February 2025 event. A summary of data collected during these assessment monitoring events may be found in Table 1.

Chemical analysis was completed by a National Environmental Laboratory Accreditation Program–certified analytical laboratory. The laboratory completed analysis of quality assurance and quality control (QA/QC) samples such as laboratory reagent blanks, continuing calibration verification samples, and laboratory fortified blanks.

A data quality review was completed to assess whether the data met the objectives outlined in TCEQ Draft Technical Guidance No. 32 related to groundwater sampling and analysis (TCEQ 2020). As noted in the review memoranda (Attachment B), the data were determined usable for supporting project objectives. The analytical data were imported into a Microsoft Access database, where checks were completed to assess the accuracy of sample location identification and analyte identification. Where necessary, unit conversions were applied to standardize reported units across all sampling events. Exported data files were created for use with the Sanitas™ v.10.0.27 statistics software. The export file was checked against the analytical data for transcription errors and completeness.

2.2 Statistical Analysis

Statistical analyses for the PBAP were conducted in accordance with the December 2021 Statistical Analysis Plan (Geosyntec 2021). Time series plots and results for all completed statistical tests are provided in Attachment C. The data obtained in February and April 2025 were screened for potential outliers. No outliers were identified for these events.

2.2.1 Evaluation of Potential Appendix IV SSLs

A confidence interval was constructed for each Appendix IV parameter at each compliance well. Confidence limits were generally calculated parametrically ($\alpha = 0.01$), but nonparametric confidence limits were calculated in some cases (e.g., when the data did not appear to be normally distributed or when the nondetect frequency was too high). An SSL was concluded if the lower confidence limit was above the GWPS (i.e., if the entire confidence interval was above the GWPS). The calculated confidence limits (Attachment C) were compared to the GWPS provided in Table 2. The GWPSs were established as either the greater value of the background concentration calculated during a previous statistical analysis or the maximum contaminant level (Geosyntec 2024).

No SSLs were identified at the Welsh PBAP.

2.2.2 Evaluation of Potential Appendix III SSIs

The Appendix III results were analyzed to assess whether concentrations of Appendix III parameters at the compliance wells were above background concentrations. Data collected during the April 2025 assessment monitoring event from each compliance well were compared to previously established prediction limits to assess whether the results were statistically above background limits. The results from this event and the prediction limits are summarized in Table 3. The following were detected above the upper prediction limits (UPLs) or, in the case of pH, below the lower prediction limits (LPLs):

- The boron concentration was above the interwell UPL of 0.973 milligrams per liter (mg/L) at AD-8 (1.05 mg/L).
- The fluoride concentration was above the intrawell UPL of 0.981 mg/L at AD-8 (1.01 mg/L).
- The reported pH value was below the interwell LPL of 4.8 standard units (SU) at AD-15 (4.4 SU).

While the prediction limits were calculated for a one-of-two retesting procedure, SSIs were conservatively assumed if the April 2025 sample was above the UPL or, in the case of pH, below the LPL. Therefore, the unit will remain in assessment monitoring.

2.3 Conclusions

Annual and semiannual assessment monitoring events were conducted in accordance with the TCEQ CCR Rule. The laboratory and field data were reviewed prior to statistical analysis, with no QA/QC issues identified that prevented data usage. A review of outliers identified no potential outliers in the February or April 2025 data. A confidence interval was constructed at each compliance well for each Appendix IV parameter; SSLs were concluded if the entire confidence interval exceeded the GWPS. No SSLs were identified. The Appendix III results were compared to previously calculated prediction limits, with values above the UPL detected for boron and fluoride and with results below the LPL for pH.

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TABLES

Table 1. Groundwater Data Summary
Statistical Analysis Summary
Welsh Plant - Primary Bottom Ash Pond

Parameter	Unit	AD-1	AD-5		AD-8		AD-9		AD-15		AD-17
		Background	Background		Compliance		Compliance		Compliance		Background
		4/29/2025	4/28/2025	4/29/2025	2/10/2025	4/28/2025	2/10/2025	4/28/2025	2/10/2025	4/28/2025	4/29/2025
Antimony	µg/L	0.105	--	0.008 J1	0.013 J1	0.011 J1	0.009 J1	0.015 J1	0.012 J1	0.021 J1	0.019 J1
Arsenic	µg/L	0.16	--	2.88	0.21	0.21	0.28	0.67	1.14	2.13	0.81
Barium	µg/L	110	--	48.1	23.6	24.8	94.2	52.1	67.3	78.3	9.95
Beryllium	µg/L	1.31	--	0.080	0.5 U1	0.008 J1	0.79	0.974	0.22 J1	0.134	0.079
Boron	mg/L	0.916	--	0.027 J1	1.09	1.05	0.099	0.077	0.035 J1	0.108	0.106
Cadmium	µg/L	0.049	--	0.02 U1	0.027	0.023	0.188	0.267	0.010 J1	0.010 J1	0.007 J1
Calcium	mg/L	19.7	--	22.5	16.7	18.4 M1	45.6	136	2.57	3.49	201
Chloride	mg/L	4.63	--	24.3	19.7	19.3	33.0	60.3	24.8	26.7	41.4
Chromium	µg/L	0.43	--	0.41	0.25 J1	0.24 J1	0.68	0.54	0.22 J1	0.36	0.56
Cobalt	µg/L	3.76	--	10.3	2.72	3.47	17.2	18.9	2.69	3.15	61.6
Combined Radium	pCi/L	2.92	--	1.08	1.68	0.87	2.82	3.62	2.57	1.57	1.3
Fluoride	mg/L	0.68	--	0.20	0.94	1.01	0.19	0.10	0.06	0.06	0.11 J1
Lead	µg/L	4.61	--	0.2 U1	0.2 U1	0.2 U1	0.07 J1	0.08 J1	0.07 J1	0.12 J1	0.16 J1
Lithium	mg/L	0.00851	--	0.0933	0.0791	0.0676	0.287	0.572	0.0016 J1	0.00242	0.285
Mercury	µg/L	0.005 U1	--	0.005 U1	0.005 U1	0.005 U1	0.004 J1	0.005 U1	0.005 U1	0.005 U1	0.005 U1
Molybdenum	µg/L	0.5 U1	--	0.5 U1	0.2 J1	0.5 U1	0.5 U1	0.5 U1	0.5 U1	0.5 U1	0.1 J1
Selenium	µg/L	10.9	--	0.5 U1	0.5 U1	0.5 U1	0.31 J1	0.62	0.17 J1	0.40 J1	0.32 J1
Sulfate	mg/L	144	--	64.8	138	143	374	913	1.2	5.4	993
Thallium	µg/L	0.04 J1	--	0.2 U1	0.13 J1	0.10 J1	0.20	0.23	0.05 J1	0.06 J1	0.02 J1
Total Dissolved Solids	mg/L	300	--	220	280	290	730	1,500	70	110	1,600
pH	SU	5.4	5.5	--	6.7	6.5	5.7	5.0	4.5	4.4	6.0

Notes:
--: not sampled
J1: Estimated value. Parameter was detected in concentrations below the reporting limit.
M1: The associated matrix spike (MS) or matrix spike duplicate (MSD) recovery was outside acceptance limits.
mg/L: milligrams per liter
pCi/L: picocuries per liter
SU: standard unit
µg/L: micrograms per liter
U1: Non-detect value. For statistical analysis, parameters that were not detected were replaced with the reporting limit.

Table 2. Appendix IV Groundwater Protection Standards
Statistical Analysis Summary
Welsh Plant – Primary Bottom Ash Pond

Geosyntec Consultants, Inc.

Constituent Name	MCL	Calculated UTL	GWPS
Antimony, Total (mg/L)	0.00600	0.00317	0.00600
Arsenic, Total (mg/L)	0.0100	0.00628	0.0100
Barium, Total (mg/L)	2.00	0.512	2.00
Beryllium, Total (mg/L)	0.00400	0.00220	0.00400
Cadmium, Total (mg/L)	0.00500	0.00400	0.00500
Chromium, Total (mg/L)	0.100	0.00500	0.100
Cobalt, Total (mg/L)	n/a	0.0748	0.0748
Combined Radium, Total (pCi/L)	5.00	4.72	5.00
Fluoride, Total (mg/L)	4.00	0.583	4.00
Lead, Total (mg/L)	n/a	0.00110	0.00110
Lithium, Total (mg/L)	n/a	0.394	0.394
Mercury, Total (mg/L)	0.00200	0.0000330	0.00200
Molybdenum, Total (mg/L)	n/a	0.00243	0.00243
Selenium, Total (mg/L)	0.0500	0.01130	0.0500
Thallium, Total (mg/L)	0.00200	0.00125	0.00200

Notes:

1. Calculated UTL (upper tolerance limit) represents site-specific background values.

2. Grey cells indicate the GWPS is based on the calculated UTL. Either the UTL is higher than the MCL or an MCL does not exist.

GWPS: groundwater protection standard

MCL: maximum contaminant level

mg/L: milligrams per liter

n/a: not applicable

pCi/L: picocuries per liter

Table 3. Appendix III Data Summary
Statistical Analysis Summary
Welsh - Primary Bottom Ash Pond

Geosyntec Consultants, Inc.

Analyte	Unit	Description	AD-8	AD-9	AD-15
			4/28/2025	4/28/2025	4/28/2025
Boron	mg/L	Interwell Background Value (UPL)	0.973		
		Analytical Result	**1.05**	0.077	0.108
Calcium	mg/L	Intrawell Background Value (UPL)	27.3	258	4.42
		Analytical Result	18.4	136	3.49
Chloride	mg/L	Intrawell Background Value (UPL)	25.9	103	35.5
		Analytical Result	19.3	60.3	26.7
Fluoride	mg/L	Intrawell Background Value (UPL)	0.981	0.434	0.150
		Analytical Result	**1.01**	0.10	0.06
pH	SU	Interwell Background Value (UPL)	6.9		
		Interwell Background Value (LPL)	4.8		
		Analytical Result	6.5	5.0	**4.4**
Sulfate	mg/L	Intrawell Background Value (UPL)	198	1,910	28.2
		Analytical Result	143	913	5.4
Total Dissolved Solids	mg/L	Intrawell Background Value (UPL)	467	2,690	243
		Analytical Result	290	1,500	110

Notes:

1. Bold values exceed the background value.

2. Background values are shaded gray.

LPL: lower prediction limit

mg/L: milligrams per liter

SU: standard units

UPL: upper prediction limit

Geosyntec consultants

ATTACHMENT A
Certification by Qualified Professional Engineer

Certification by Qualified Professional Engineer

I certify that selected and above described statistical method is appropriate for evaluating the groundwater monitoring data for the Welsh Primary Bottom Ash Pond CCR management area and that the requirements of § 352.931(a) have been met.



David Anthony Miller

Printed Name of Licensed Professional Engineer

David Anthony Miller

Signature

112498	Texas	08.26.2025
License Number	Licensing State	Date

ATTACHMENT B
Data Quality Review Memoranda

Geosyntec consultants

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Worthington, Ohio 43085
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Memorandum

Date:	July 24, 2025
To:	David Miller (AEP)
Copies to:	Pryce Warren (AEP)
From:	Allison Kreinberg (Geosyntec)
Subject:	Data Quality Review – Welsh Power Plant February 2025 Sampling Event

This memorandum summarizes the findings of a data quality review for groundwater samples collected at the Welsh Power Plant, located in Pittsburg, Texas in February 2025. The groundwater samples were collected to comply with the Texas Commission on Environmental Quality's (TCEQ's) regulations regarding the disposal of coal combustion residuals (CCRs) in landfills and surface impoundments (Title 30 Chapter 352, "CCR Rule"). 40 CFR 257 Appendix III and IV constituents were analyzed.

The following sample data groups (SDGs) were associated with the groundwater samples collected during the February 2025 sampling event and are reviewed in this memorandum:

- Dolan Chemical Laboratory (Groveport, Ohio) Job ID # 250418
- Dolan Chemical Laboratory (Groveport, Ohio) Job ID # 250454

The data included in these SDGs were reviewed to assess if they met the objectives outlined in TCEQ Draft Technical Guideline No. 32[1] prior to submittal of this data to TCEQ.

The following data quality issues were identified:

- As reported in SDG 250418, chloride was detected in the equipment blank sample "EQUIPMENT BLANK" collected on 2/10/2025. The detected chloride concentration in

[1] TCEQ. Topic: Coal Combustion Residuals (CCR) Groundwater Monitoring and Corrective Action: Technical Guidance No. 32. May 2020.

the equipment blank (0.69 mg/L) was more than 10% of the detected value for chloride in sample AD-14, which could result in high bias for the AD-14 chloride result.

- As reported in SDG 250454, barium, boron, calcium, chromium, cobalt, and lithium were detected in the equipment blank sample "EQUIPMENT BLANK" collected on 2/10/2025. The estimated detected boron concentration in the equipment blank (0.014 mg/L) was more than 10% of the detected values for boron in samples AD-9 and AD-15, which could result in high bias for these groundwater boron results. The estimated detected chromium concentration in the equipment blank (0.29 µg/L) was more than 10% of the detected values for chromium in all groundwater samples, which could result in high bias for all groundwater chromium results.

- As reported in SDG 250454, the relative percent difference (RPD) for antimony concentrations from parent sample "AD-8" and duplicate sample "DUPLICATE" was 26%. The RPD for chromium from AD-8 and Duplicate was 28%, and the RPD for thallium from AD-8 and Duplicate was 36%. The molybdenum result for AD-8 was a detection (0.2 µg/L), and the molybdenum result for Duplicate was nondetect (<0.1 µg/L). The selenium result for AD-8 was nondetect (<0.04 µg/L), and the selenium result for Duplicate was a detection (0.05 µg/L). The RPD could not be calculated for molybdenum or selenium. The AD-8 antimony, chromium, molybdenum, selenium, and thallium results should be considered estimated; the antimony, chromium, molybdenum, and thallium results were already estimated and flagged J1: analyte was detected between the method detection limit and the reporting limit.

- As reported in SDG 250418, the total dissolved solids (TDS) sample collected at duplicate sample "DUPLICATE" was flagged S7: sample did not achieve constant weight. The duplicate TDS result should be considered estimated.

- The RPD for radium-226 in the laboratory duplicate sample "PB25022102" (34.4) was above the acceptable limit of 25. Sample AD-8, which was associated with that QC batch on SDG 250454, was flagged P1: The precision between duplicate results was above acceptance limits.

Based on these findings, the majority of the data reported in these SDGs are considered accurate and complete. Although the QC failures mentioned above will result in some limitations of data use since the affected results are considered estimated or have elevated reporting limits, the data are considered usable for supporting project objectives.

Geosyntec consultants

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Memorandum

Date:	July 24, 2025
To:	David Miller (AEP)
Copies to:	Pryce Warren (AEP)
From:	Allison Kreinberg (Geosyntec)
Subject:	Data Quality Review – Welsh Power Plant April 2025 Sampling Event

This memorandum summarizes the findings of a data quality review for groundwater samples collected at the Welsh Power Plant, located in Pittsburg, Texas in April 2025. The groundwater samples were collected to comply with the Texas Commission on Environmental Quality's (TCEQ's) regulations regarding the disposal of coal combustion residuals (CCRs) in landfills and surface impoundments (Title 30 Chapter 352, "CCR Rule"). 40 CFR 257 Appendix III and IV constituents were analyzed.

The following sample data groups (SDGs) were associated with the groundwater samples collected during the April 2025 sampling event and are reviewed in this memorandum:

- Dolan Chemical Laboratory (Groveport, Ohio) Job ID # 251140
- Dolan Chemical Laboratory (Groveport, Ohio) Job ID # 251143
- Dolan Chemical Laboratory (Groveport, Ohio) Job ID # 251144
- Dolan Chemical Laboratory (Groveport, Ohio) Job ID # 251167
- Dolan Chemical Laboratory (Groveport, Ohio) Job ID # 251170
- Dolan Chemical Laboratory (Groveport, Ohio) Job ID # 251171

The data included in these SDGs were reviewed to assess if they met the objectives outlined in TCEQ Draft Technical Guideline No. 32[1] prior to submittal of this data to TCEQ.

[1] TCEQ. Topic: Coal Combustion Residuals (CCR) Groundwater Monitoring and Corrective Action: Technical Guidance No. 32. May 2020.

The following data quality issues were identified:

- As reported in SDG 251167, chromium and cobalt were detected in the equipment blank sample "Equipment Blank-Landfill" collected on 4/28/2025. The estimated detected chromium concentration in the equipment blank (0.26 µg/L) was more than 10% of the detected values for chromium in all groundwater samples, which could result in high bias for all groundwater chromium results.

- As reported in SDG 251167, barium, chromium, and cobalt were detected in the field blank sample "Field Blank-Landfill" collected on 4/28/2025. The detected chromium concentration in the field blank (0.33 µg/L) was more than 10% of the detected values for chromium in all groundwater samples, which could result in high bias for all groundwater chromium results.

- As reported in SDG 251170, antimony, boron, calcium, chromium, and lithium were detected in the equipment blank sample "EQUIPMENT BLANK-PBAP" collected on 4/28/2025. The estimated detected boron concentration in the equipment blank (0.008 mg/L) was more than 10% of the detected value for boron in sample AD-9, which could result in high bias for the AD-9 boron result. The estimated detected antimony (0.07 µg/L) and chromium (0.26 µg/L) concentrations in the equipment blank were more than 10% of the detected values for antimony and chromium in all groundwater samples, which could result in high bias for all groundwater antimony and chromium results.

- As reported in SDG 251170, antimony, calcium, chromium, and lithium were detected in the field blank sample "FIELD BLANK-PBAP" collected on 4/28/2025. The estimated detected antimony (0.072 µg/L) and chromium (0.28 µg/L) concentrations in the field blank were more than 10% of the detected values for antimony and chromium in all groundwater samples, which could result in high bias for all groundwater antimony and chromium results.

- As reported in SDG 251171, antimony, barium, chromium, and lithium were detected in the equipment blank sample "EQUIPMENT BLANK-BACKGROUND" collected on 4/29/2025. The estimated detected antimony (0.050 µg/L) and chromium (0.28 µg/L) concentrations in the equipment blank were more than 10% of the detected values for antimony and chromium in all groundwater samples, which could result in high bias for all groundwater antimony and chromium results.

- As reported in SDG 251171, antimony, barium, chromium**,** and cobalt were detected in the field blank sample "FIELD BLANK-BACKGROUND" collected on 4/29/2025. The

estimated detected antimony (0.019 µg/L) and chromium (0.25 µg/L) concentrations in the field blank were more than 10% of the detected values for antimony and chromium in all groundwater samples, which could result in high bias for all groundwater antimony and chromium results.

- As reported in SDG 251140, the fluoride result for parent sample "AD-11" was a detection (0.02 mg/L), and the fluoride result for duplicate sample "Duplicate - Landfill" was nondetect (<0.02 mg/L); therefore, the relative perfect difference (RPD) could not be calculated. The fluoride result for AD-11 was considered estimated and flagged J1: analyte was detected between the method detection limit and the reporting limit.

- As reported in SDG 251167, the RPD for antimony concentrations from parent sample "AD-11" and duplicate sample "DUPLICATE - LANDFILL" was 38%. The RPD for mercury concentrations from AD-11 and duplicate was 40%. The AD-11 antimony and mercury results should be considered estimated.

- As reported in SDG 251170, the RPD for chromium concentrations from parent sample "AD-8" and duplicate sample "DUPLICATE - PBAP" was 34%. The AD-8 chromium result should be considered estimated.

- As reported in SDG 251171, the RPD for antimony concentrations from parent sample "AD-1" and duplicate sample "DUPLICATE - BACKGROUND" was 96%. The RPD for chromium concentrations from AD-1 and duplicate was 21%. The RPD for lead concentrations from AD-1 and duplicate was 188%. The RPD for thallium concentrations from AD-1 and duplicate was 22%. The AD-1 antimony, chromium, lead, and thallium results should be considered estimated; the thallium result at AD-1 was already estimated and flagged J1: analyte was detected between the method detection limit and the reporting limit.

- As reported in SDG 251170, the matrix spike duplicate (MSD) recovery for calcium (58.7%) was below the acceptable limit of 75%. The associated sample (AD-8) was flagged M1: the associated matrix spike (MS) or MSD recovery was outside acceptance limits. The MSD RPD for radium-228 (36.5) was above the acceptable limit of 25. The associated sample (AD-8) was flagged P3: the precision on the MSD was above acceptance limits. The AD-8 calcium and radium-228 results should be considered estimated.

- As reported in SDG 251140, the duplicate sample "Duplicate – Landfill" collected on 4/28/2025 for total dissolved solids (TDS) was flagged S7: sample did not achieve constant weight. The duplicate TDS result should be considered estimated.

- As reported in SDG 251167, the sample “AD-13” collected on 4/30/2025 for radium-226 was flagged R2: carrier recovery was outside acceptance limits. The AD-13 radium-226 results should be considered estimated.

Based on these findings, the majority of the data reported in these SDGs are considered accurate and complete. Although the QC failures mentioned above will result in some limitations of data use since the affected results are considered estimated or have elevated reporting limits, the data are considered usable for supporting project objectives.

ATTACHMENT C
Statistical Analysis Output

GROUNDWATER STATS CONSULTING

August 6, 2025

Geosyntec Consultants
Attn: Ms. Allison Kreinberg
500 W. Wilson Bridge Road, Suite 250
Worthington, OH 43085

Re: Welsh PBAP – February & April 2025 Assessment Monitoring Report

Dear Ms. Kreinberg,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the statistical analysis of groundwater data for the February and April 2025 Assessment Monitoring report for American Electric Power Inc.'s Welsh PBAP. The analysis complies with the Texas Commission of Environmental Quality Rule 30 TAC 352 as well as with the United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

Sampling began at the site for the Coal Combustion Residual (CCR) program in 2016. The monitoring well network, as provided by Geosyntec Consultants, consists of the following:

- **Upgradient wells:** AD-1, AD-5, and AD-17
- **Downgradient wells:** AD-8, AD-9, and AD-15

Data were sent electronically, and the statistical analysis was reviewed by Dr. Jim Loftis, Civil & Environmental Engineering professor emeritus at Colorado State University and Senior Advisor to Groundwater Stats Consulting. The analysis was conducted according to the Statistical Analysis Plan prepared by GSC and approved by Dr. Cameron, PhD Statistician with MacStat Consulting, primary author of the USEPA Unified Guidance, and Senior Advisor to GSC.

Note that according to Geosyntec Consultants, the upgradient wells were not sampled in February 2025, but were sampled during the April 2025 sample event.

The CCR Assessment Monitoring program consists of the following constituents:

- **Appendix IV** (Assessment Monitoring) **–** antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lead, lithium, mercury, molybdenum, selenium, and thallium

Time series plots for Appendix IV parameters are provided for all wells and constituents; and are used to evaluate concentrations over the entire record (Figure A). Additionally, box plots are included for all constituents at upgradient and downgradient wells (Figure B). Due to varying reporting limits over time, generally as a result of improved laboratory practices, a substitution of the most recent reporting limit is used for non-detect data for all constituents. Note that elevated reporting limits in upgradient well AD-17 were observed for lead and selenium during the October 2023 event; therefore, the most recent respective reporting limit from other wells was substituted across all wells for each of these constituents during this event. Additionally, a reporting limit of 0.15 mg/L was substituted across all wells for fluoride as a result of elevated historic reporting limits. The computed statistical limits, both background and compliance limits, were not adversely affected by these substitutions.

The time series plots are used to initially screen for suspected outliers and trends, while the box plots provide visual representation of variation within individual wells and between all wells. Values previously identified and flagged as outliers may be seen in the Outlier Summary following this letter (Figure C) and are plotted in a lighter font and disconnected symbol on the time series graphs. Note that the measured concentrations of most metals for the September 30, 2016 sample event at well AD-15 are elevated compared to the rest of the observations and resulted from turbidity levels of >1000 mg/L. These values were flagged as outliers as the measurements do not represent the population at this well.

Summary of Statistical Methods – Appendix IV Parameters

The overall approach for assessing compliance is to compute a Groundwater Protection Standard (GWPS) for each Appendix IV parameter, using the higher of a background tolerance limit or a regulatory limit. Then for each downgradient well and parameter, a confidence interval for the mean or median is compared to the GWPS.

For computing the background limits, parametric tolerance limits are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are non-detects, a nonparametric test is utilized. The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for

normality. After testing for normality and performing any adjustments as discussed below (USEPA, 2009), data are analyzed using either parametric or non-parametric tolerance limits as appropriate.

- No statistical analyses are required on wells and analytes containing 100% non-detects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% non-detects, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the most recent practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% non-detects, the Kaplan-Meier non-detect adjustment is applied to the background data for parametric limits. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric tolerance limits and confidence intervals are used on data containing greater than 50% non-detects or data sets which do not follow a normal or transformed-normal distribution.

Summary of Background Update – Conducted in Fall 2024

Outlier Analysis

Prior to evaluating Appendix IV parameters, upgradient well data are screened through both visual screening and Tukey's outlier test for potential outliers and extreme trending patterns that would lead to artificially elevated statistical limits. All flagged values may be seen on the Outlier Summary following this letter, and previously flagged outliers were confirmed for Appendix IV parameters. As mentioned above, for fluoride, lead, and selenium, historical reporting limits were updated to the most recent limits of 0.15 mg/L, 0.0002 mg/L, and 0.0005 mg/L, respectively, and applied across all non-detects for all wells.

Tukey's outlier test on pooled upgradient well data through September 2024 identified outliers for chromium and lead. The highest values for lead in upgradient wells AD-1 and AD-17 were flagged as outliers since the measurements were not consistent with remaining measurements within each respective well and when compared to pooled upgradient concentrations. All other observations identified by Tukey's test were either similar to concentrations among neighboring upgradient wells or were lower than the respective Maximum Contaminant Level (MCL); therefore, those values were not flagged as outliers.

Additionally, downgradient well data through September 2024 were screened through visual screening using time series graphs. Since the downgradient well data are used to construct confidence intervals, an approach is taken in that values that are marginally high relative to the rest of the data are retained unless there is particular justification for excluding them, such as the spurious observations at AD-15 during the September 2016 event for several constituents. As previously mentioned, two high values for fluoride in downgradient well AD-9 were flagged during the update. All flagged values may be seen on the Outlier Summary following this letter.

Interwell Upper Tolerance Limits

Upper tolerance limits were used to calculate background limits from pooled upgradient well data through September 2024 for Appendix IV parameters (Figure D). These limits are updated on an annual basis and will be updated again during the Fall 2025 sample event.

Parametric tolerance limits are calculated, with a target of 95% confidence and 95% coverage, when data follow a normal or transformed-normal distribution. When data contained greater than 50% non-detects or did not follow a normal or transformed-normal distribution, non-parametric tolerance limits were constructed using the highest background measurement. The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples.

Groundwater Protection Standards

These background limits were compared to the Maximum Contaminant Levels (MCLs) as shown in the Groundwater Protection Standard (GWPS) table following this letter to determine the highest limit for use as the GWPS in the confidence interval comparisons (Figure E).

Evaluation of Appendix IV Parameters – February & April 2025

Time series plots were used to visually identify potential outliers in downgradient wells during the February and April 2025 sample events. When suspected outliers are identified, Tukey's outlier test is used to formally test whether measurements are statistically significant. As mentioned above, high outliers are cautiously flagged in the downgradient wells when measurements are clearly much different from remaining data within a given well. Although flagging high values will also reduce the mean and thus lower the entire interval, the intent is to reduce the variance and thus reduce the width of parametric

confidence intervals to better represent the actual downgradient mean. No additional suspected outliers were identified.

Confidence Intervals

Confidence intervals were then constructed with data through April 2025 on downgradient wells for each of the Appendix IV parameters and compared to the GWPS (i.e., the highest limit of the MCL or background limit as discussed above). When data followed a normal or transformed-normal distribution, parametric confidence intervals were used for Appendix IV parameters. Nonparametric confidence intervals, which use the largest and smallest order statistics depending on the sample size as interval limits, were constructed when data did not follow a normal or transformed-normal distribution or when there were greater than 50% non-detects. The lower confidence limit, which is constructed with 99% confidence for parametric confidence intervals, is compared to the GWPS prepared as described above. The confidence level associated with nonparametric confidence intervals is dependent upon the number samples available.

Only when the entire confidence interval is above a GWPS is the well/constituent pair considered to exceed its respective standard. No exceedances were noted for any of the well/constituent pairs. A summary of the confidence interval results follows this letter (Figure F).

Trend Test Evaluation – Appendix IV

When confidence interval exceedances are identified in downgradient wells, data are further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable at the 95% confidence level. The 95% confidence level rapidly identifies statistically significant trends and is recommended in cases with limited sample sizes as well as new downgradient wells. Upgradient wells are included in the trend analyses for all parameters found to exceed their confidence interval in downgradient wells. When similar patterns exist upgradient of the site, it is an indication of variability in groundwater which may be unrelated to practices at the site. Since no confidence interval exceedances were identified, trend tests were not required.

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for the Welsh PBAP. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,



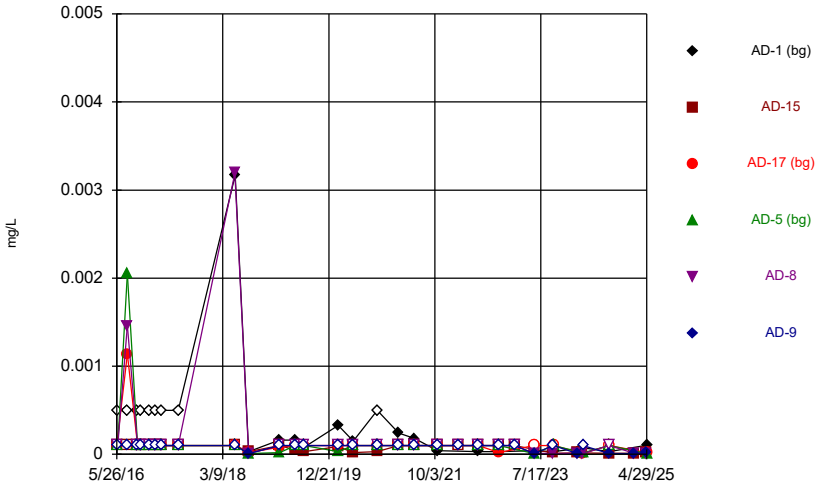


Tristan Clark
Groundwater Analyst

Andrew T. Collins
Project Manager

Sanitas™ v.10.0.27 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

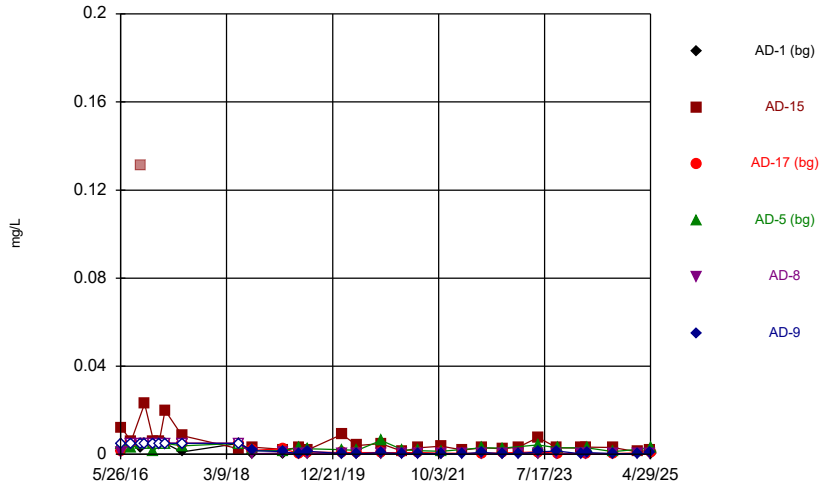
Time Series



Constituent: Antimony, total Analysis Run 7/14/2025 5:55 PM View: Appendix IV
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.27 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

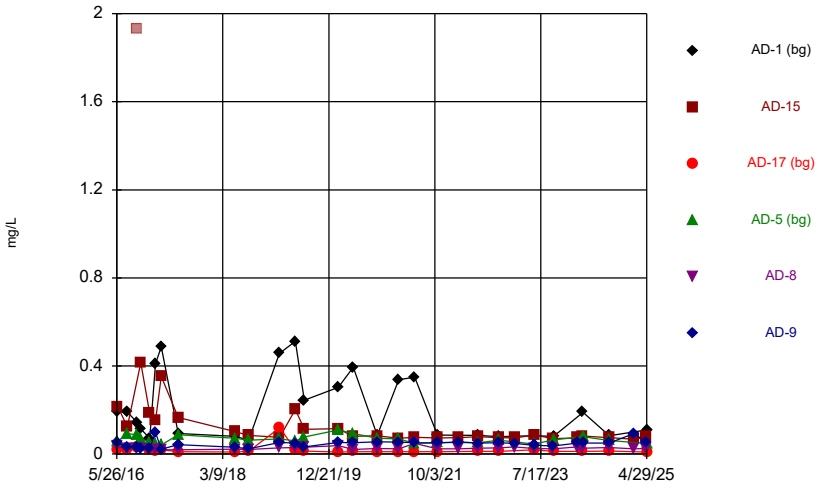
Time Series



Constituent: Arsenic, total Analysis Run 7/14/2025 5:55 PM View: Appendix IV
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Sanitas™ v.10.0.27 Sanitas software utilized by Groundwater Stats Consulting. UG

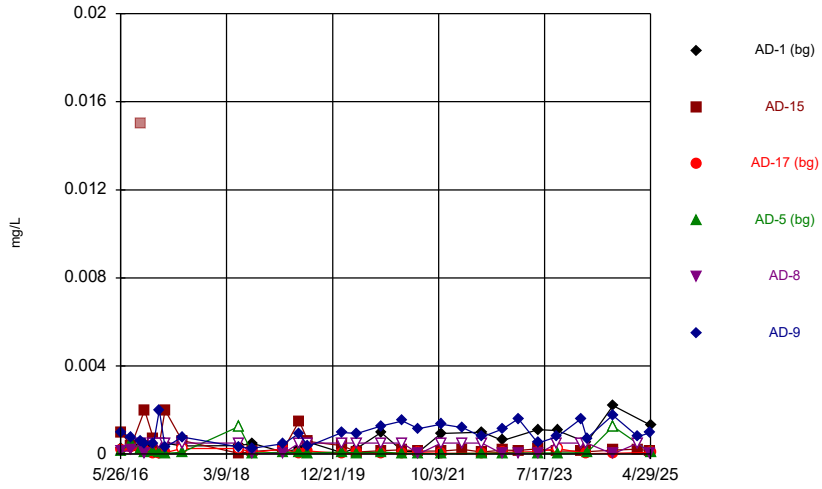
Time Series



Constituent: Barium, total Analysis Run 7/14/2025 5:55 PM View: Appendix IV
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Hollow symbols indicate censored values.

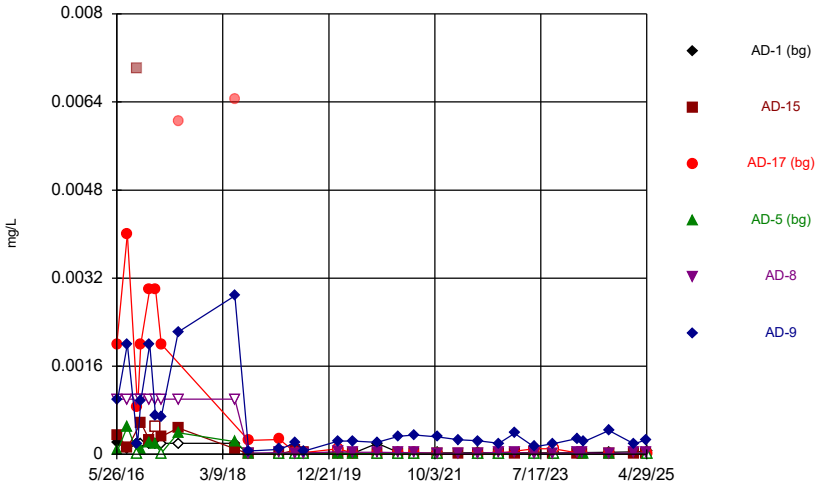
Time Series



Constituent: Beryllium, total Analysis Run 7/14/2025 5:55 PM View: Appendix IV
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Hollow symbols indicate censored values.

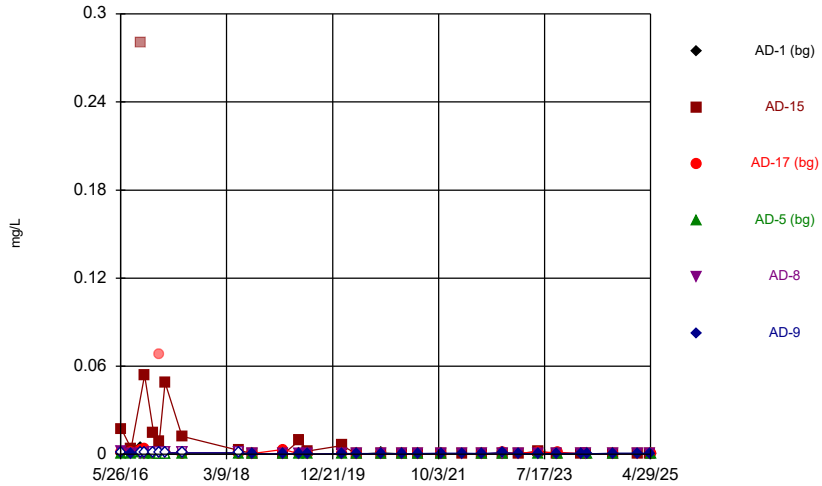
Time Series



Constituent: Cadmium, total Analysis Run 7/14/2025 5:55 PM View: Appendix IV
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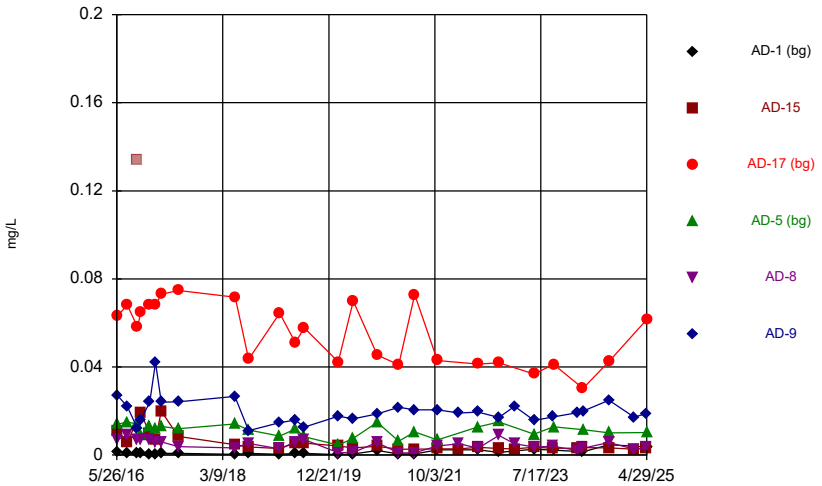
Time Series



Constituent: Chromium, total Analysis Run 7/14/2025 5:55 PM View: Appendix IV
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.27 Sanitas software utilized by Groundwater Stats Consulting. UG

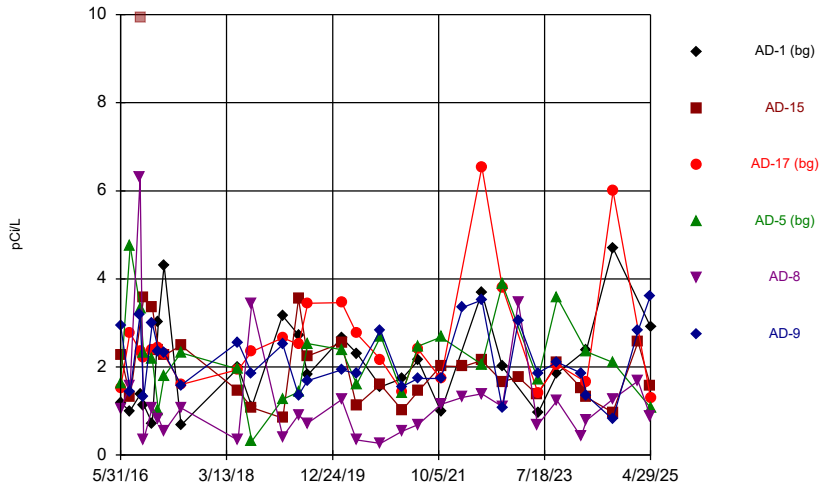
Time Series



Constituent: Cobalt, total Analysis Run 7/14/2025 5:55 PM View: Appendix IV
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.27 Sanitas software utilized by Groundwater Stats Consulting. UG

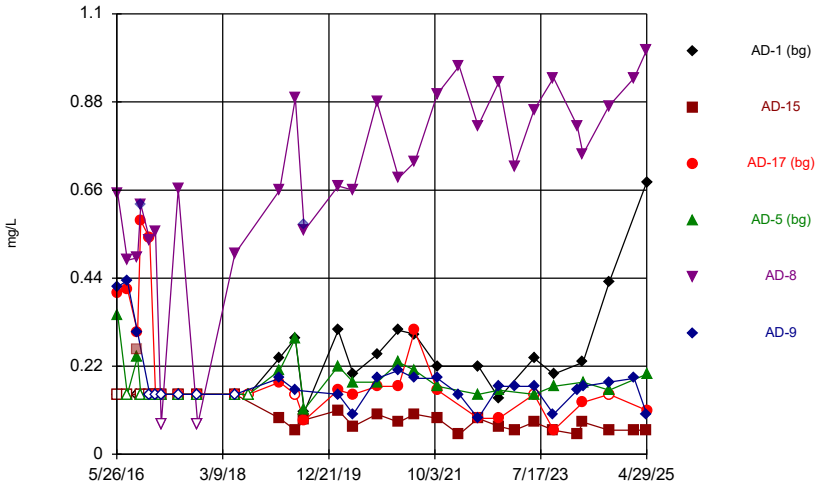
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 7/14/2025 5:55 PM View: Appendix IV
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.27 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

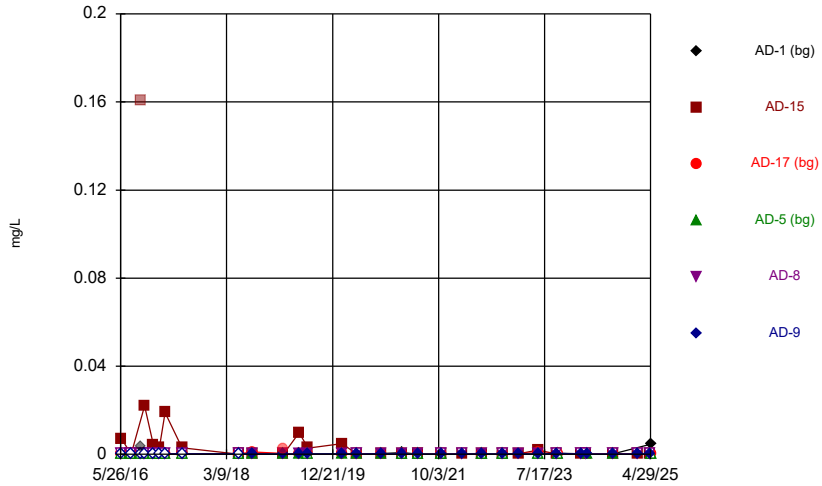
Time Series



Constituent: Fluoride, total Analysis Run 7/14/2025 5:55 PM View: Appendix IV
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Sanitas™ v.10.0.27 Sanitas software utilized by Groundwater Stats Consulting. UG
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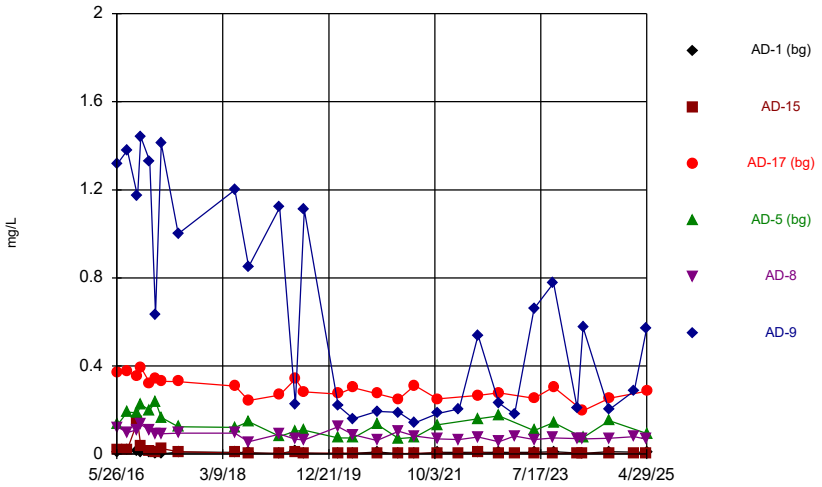
Time Series



Constituent: Lead, total Analysis Run 7/14/2025 5:55 PM View: Appendix IV
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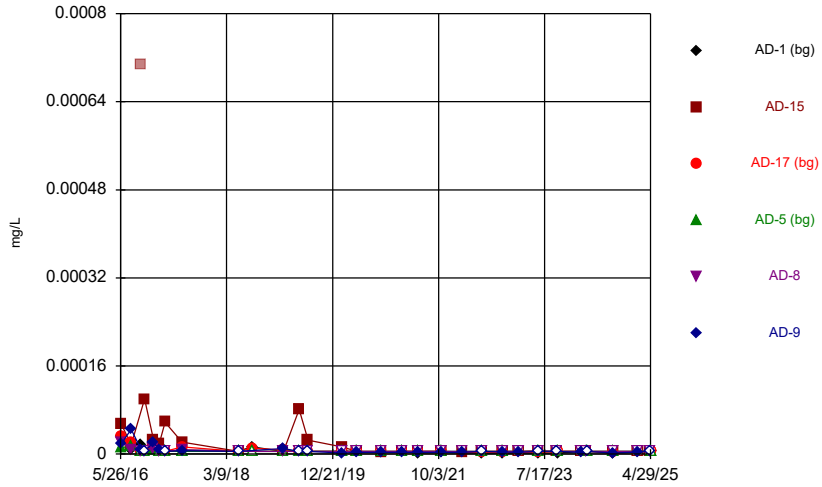
Time Series



Constituent: Lithium, total Analysis Run 7/14/2025 5:55 PM View: Appendix IV
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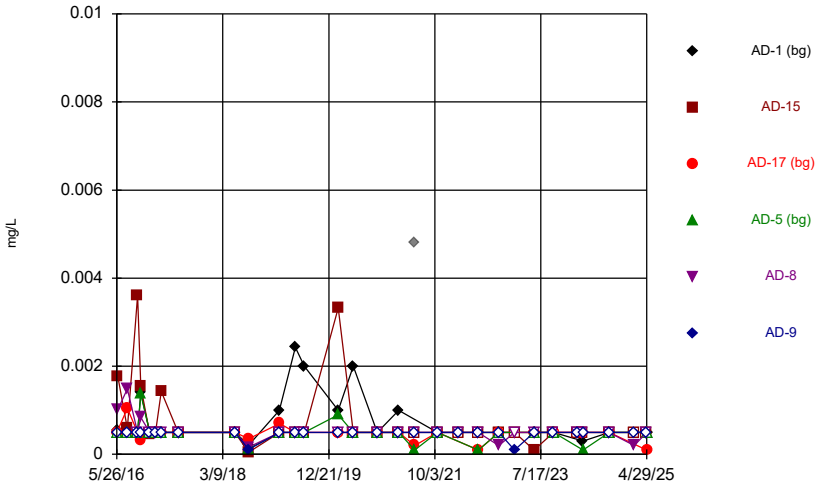
Time Series



Constituent: Mercury, total Analysis Run 7/14/2025 5:55 PM View: Appendix IV
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Sanitas™ v.10.0.27 Sanitas software utilized by Groundwater Stats Consulting. UG
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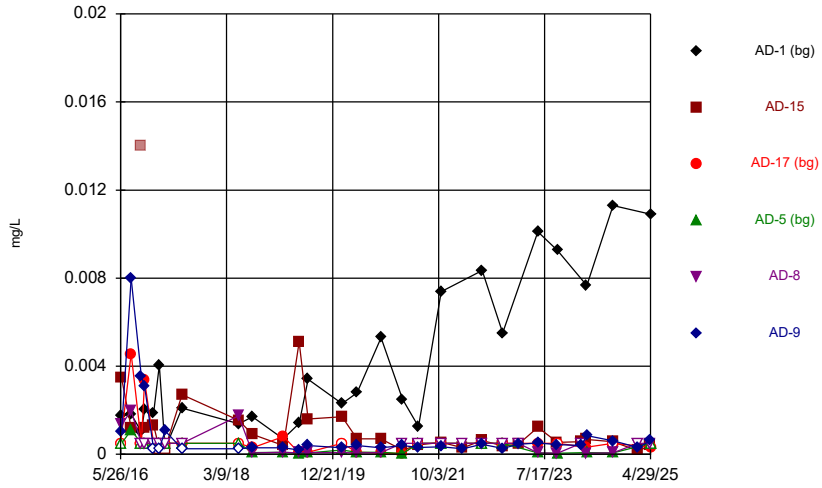
Time Series



Constituent: Molybdenum, total Analysis Run 7/14/2025 5:55 PM View: Appendix IV
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.27 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

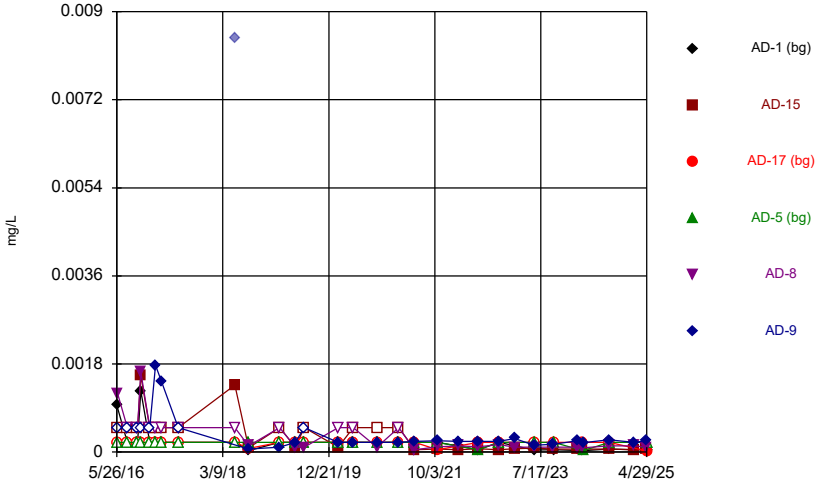
Time Series



Constituent: Selenium, total Analysis Run 7/14/2025 5:55 PM View: Appendix IV
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

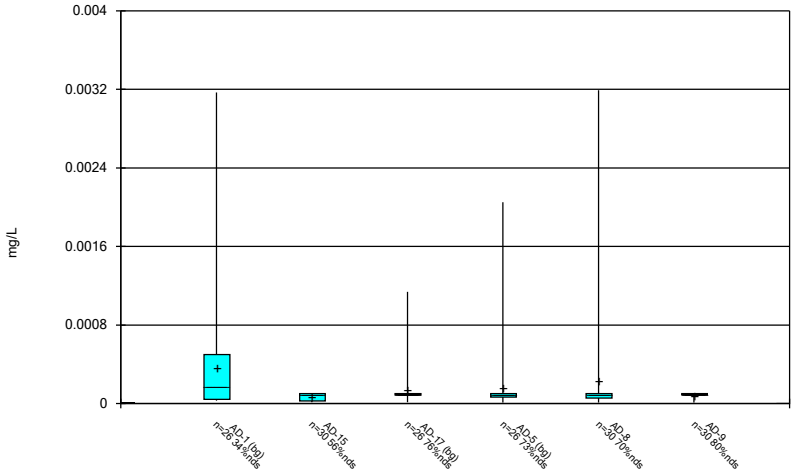
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Time Series



Constituent: Thallium, total Analysis Run 7/14/2025 5:55 PM View: Appendix IV
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

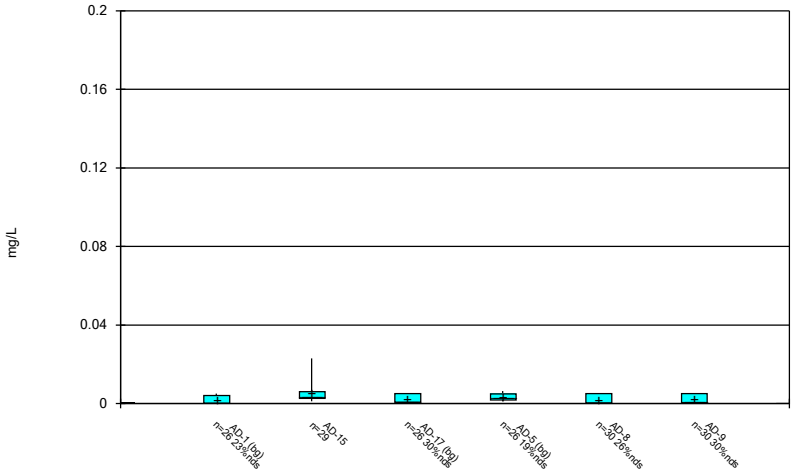
Box & Whiskers Plot



Constituent: Antimony, total Analysis Run 7/14/2025 5:56 PM View: Appendix IV
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.27 Sanitas software utilized by Groundwater Stats Consulting. UG

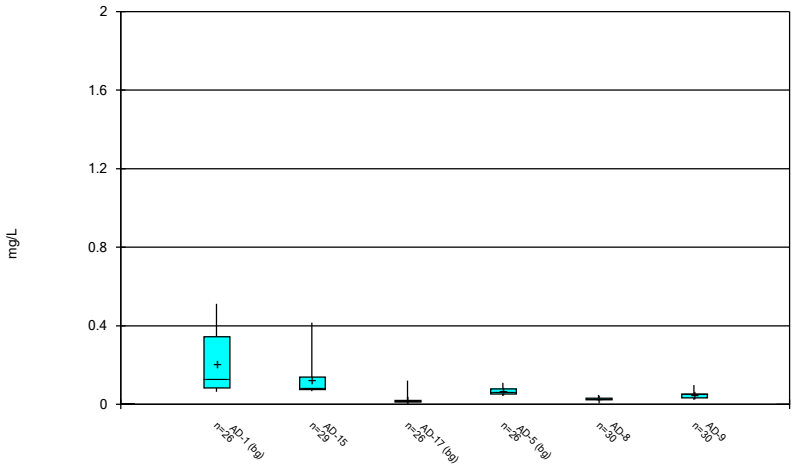
Box & Whiskers Plot



Constituent: Arsenic, total Analysis Run 7/14/2025 5:56 PM View: Appendix IV
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.27 Sanitas software utilized by Groundwater Stats Consulting. UG

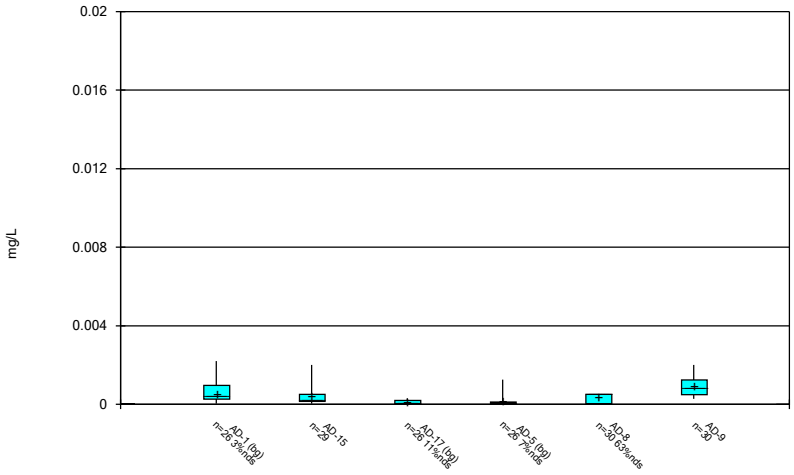
Box & Whiskers Plot



Constituent: Barium, total Analysis Run 7/14/2025 5:56 PM View: Appendix IV
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

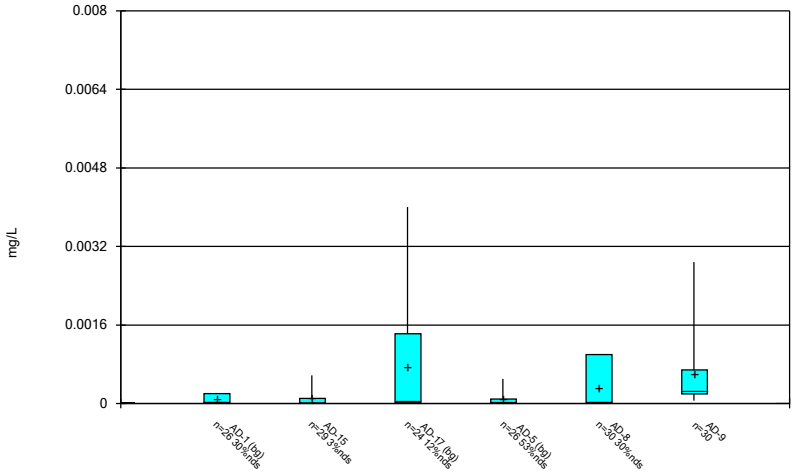
Sanitas™ v.10.0.27 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Beryllium, total Analysis Run 7/14/2025 5:56 PM View: Appendix IV
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

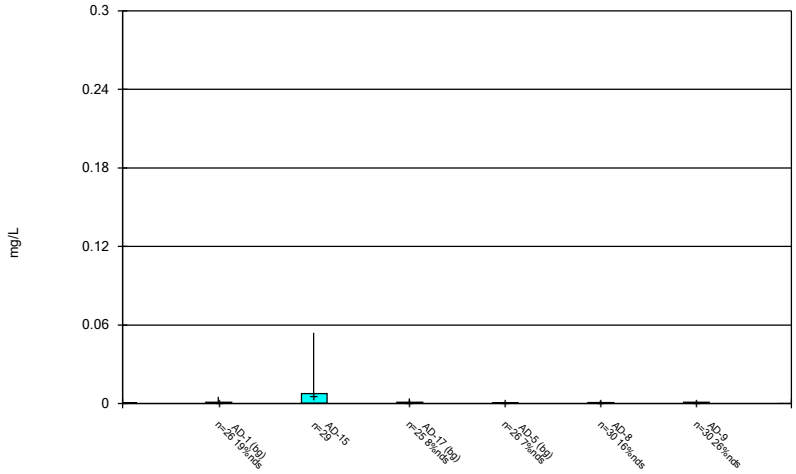
Box & Whiskers Plot



Constituent: Cadmium, total Analysis Run 7/14/2025 5:56 PM View: Appendix IV
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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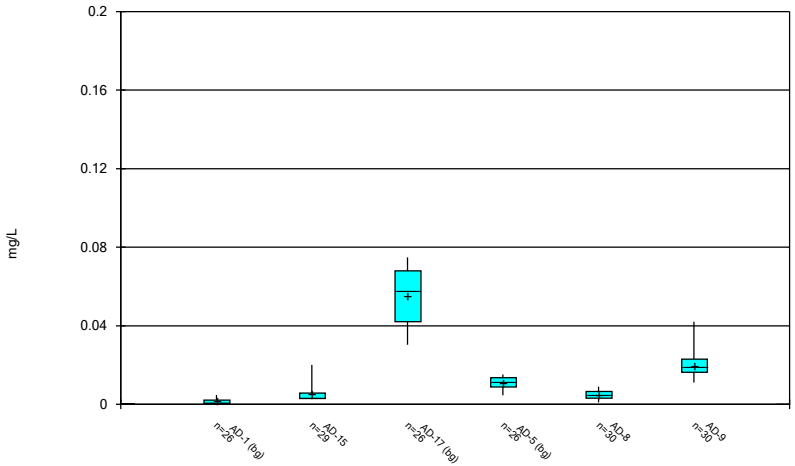
Box & Whiskers Plot



Constituent: Chromium, total Analysis Run 7/14/2025 5:56 PM View: Appendix IV
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.27 Sanitas software utilized by Groundwater Stats Consulting. UG

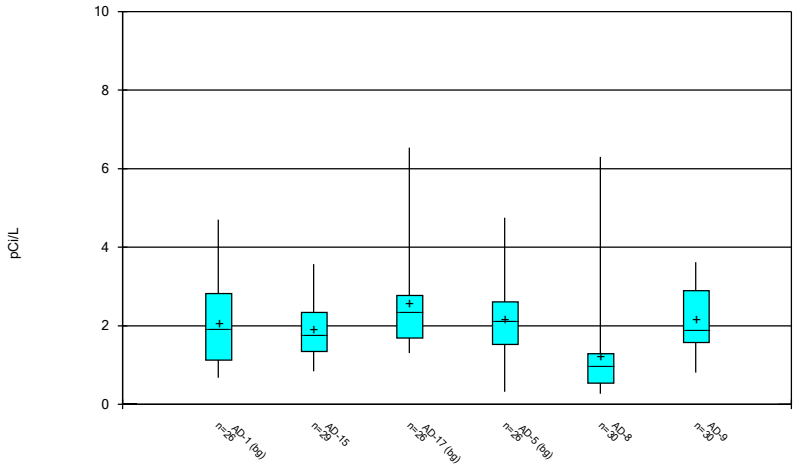
Box & Whiskers Plot



Constituent: Cobalt, total Analysis Run 7/14/2025 5:56 PM View: Appendix IV
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

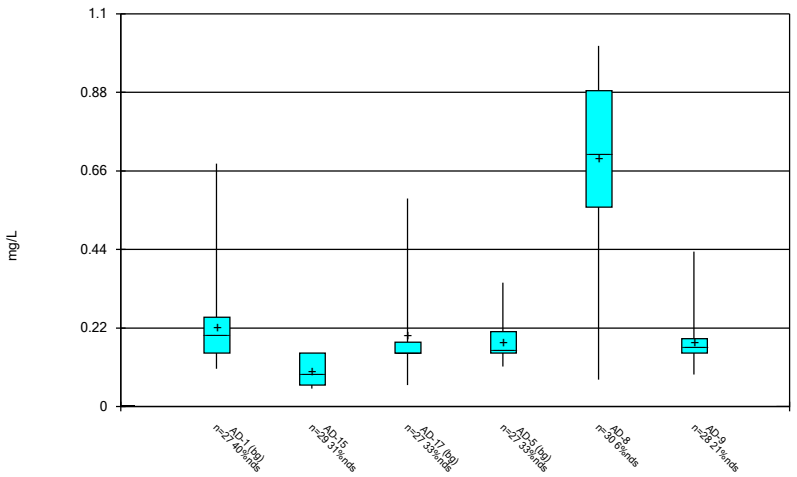
Sanitas™ v.10.0.27 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Combined Radium 226 + 228 Analysis Run 7/14/2025 5:56 PM View: Appendix IV
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

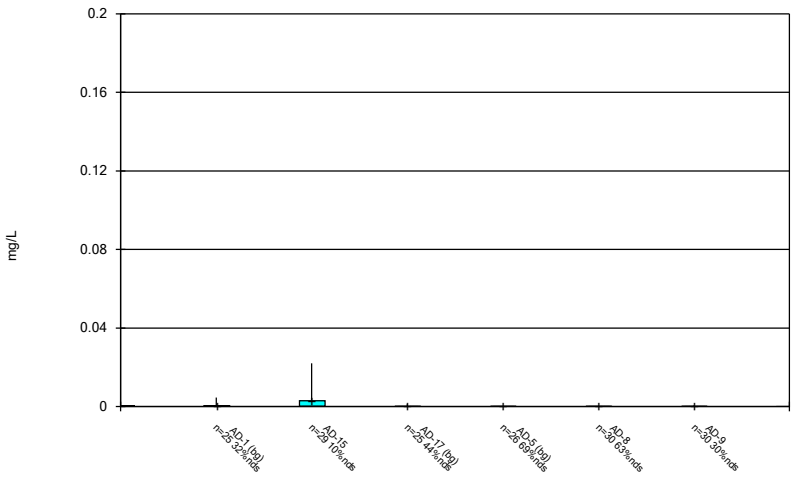
Box & Whiskers Plot



Constituent: Fluoride, total Analysis Run 7/14/2025 5:56 PM View: Appendix IV
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.27 Sanitas software utilized by Groundwater Stats Consulting. UG

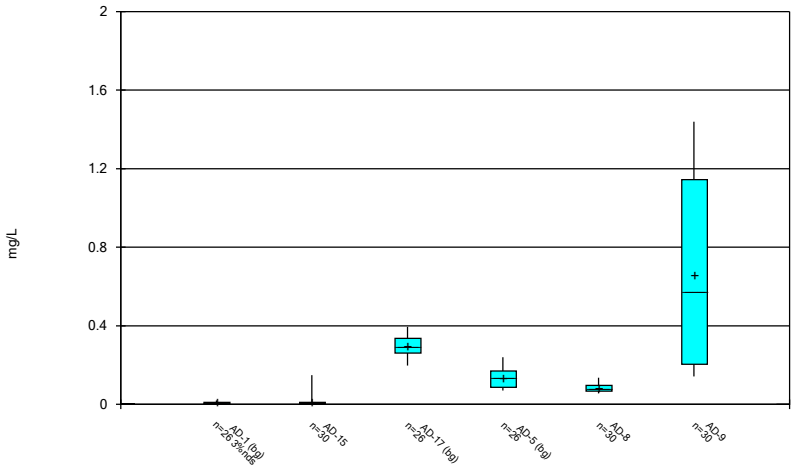
Box & Whiskers Plot



Constituent: Lead, total Analysis Run 7/14/2025 5:56 PM View: Appendix IV
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Sanitas™ v.10.0.27 Sanitas software utilized by Groundwater Stats Consulting. UG

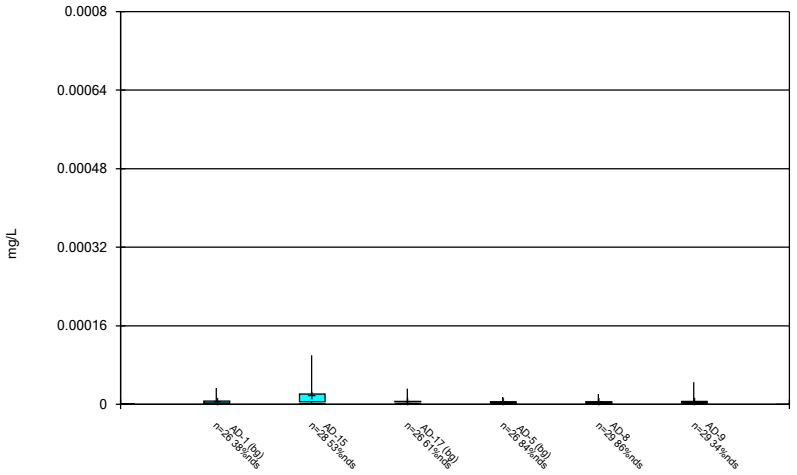
Box & Whiskers Plot



Constituent: Lithium, total Analysis Run 7/14/2025 5:56 PM View: Appendix IV
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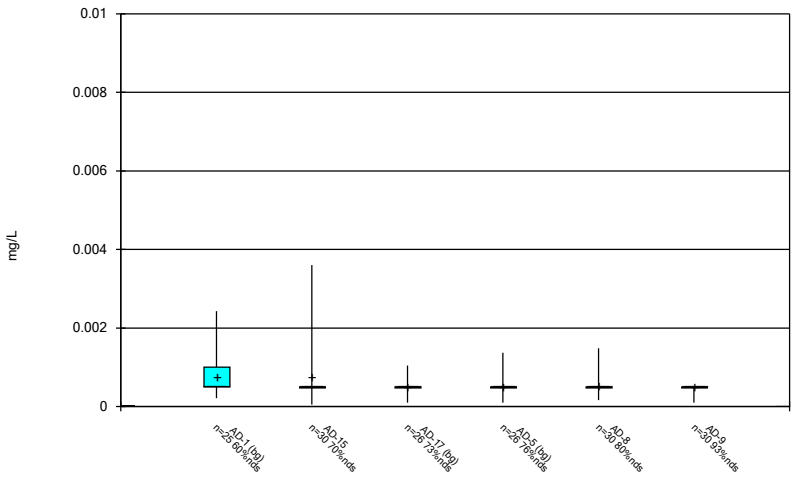
Sanitas™ v.10.0.27 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Mercury, total Analysis Run 7/14/2025 5:56 PM View: Appendix IV
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

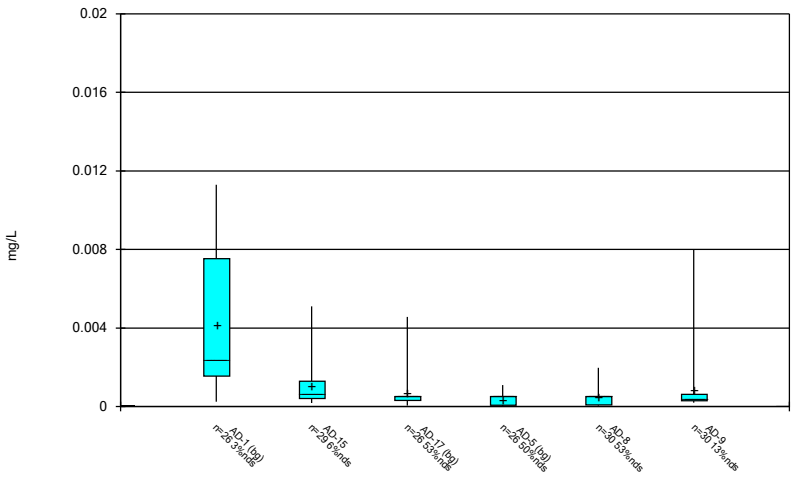
Box & Whiskers Plot



Constituent: Molybdenum, total Analysis Run 7/14/2025 5:56 PM View: Appendix IV
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.27 Sanitas software utilized by Groundwater Stats Consulting. UG

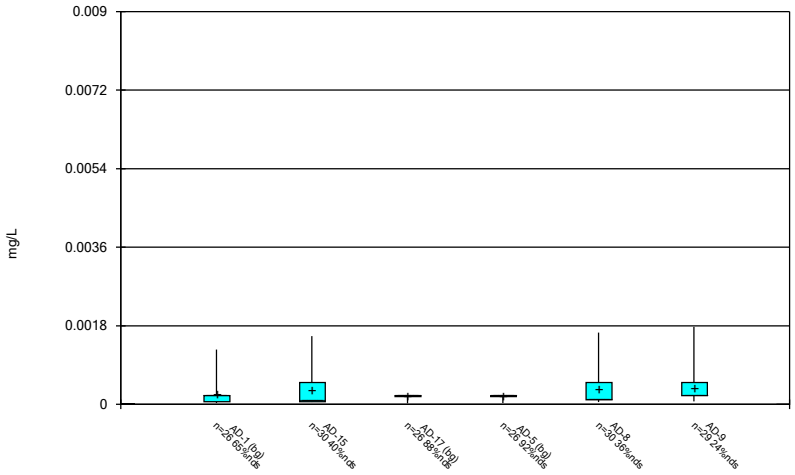
Box & Whiskers Plot



Constituent: Selenium, total Analysis Run 7/14/2025 5:56 PM View: Appendix IV
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.27 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Thallium, total Analysis Run 7/14/2025 5:56 PM View: Appendix IV
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Outlier Summary

Welsh PBAP Client: Geosyntec Data: Welsh PBAP Printed 7/14/2025, 5:57 PM

	AD-15 Arsenic, total (mg/L)	AD-15 Barium, total (mg/L)	AD-15 Beryllium, total (mg/L)	AD-15 Cadmium, total (mg/L)	AD-17 Cadmium, total (mg/L)	AD-15 Chromium, total (mg/L)	AD-17 Chromium, total (mg/L)	AD-15 Cobalt, total (mg/L)	AD-15 Combined Radium 226 + 228 (pCi/L)	AD-15 Fluoride, total (mg/L)
9/29/2016									9.92 (o)	
9/30/2016	0.131 (o)	1.93 (o)	0.015 (o)	0.007 (o)		0.28 (o)		0.134 (o)		0.2621 (Jo)
10/21/2016										
1/20/2017							0.068 (o)			
6/8/2017					0.00606 (o)					
5/23/2018										
5/24/2018					0.00646 (o)					
2/21/2019										
7/23/2019										
6/2/2021										

	AD-9 Fluoride, total (mg/L)	AD-1 Lead, total (mg/L)	AD-15 Lead, total (mg/L)	AD-17 Lead, total (mg/L)	AD-15 Mercury, total (mg/L)	AD-1 Molybdenum, total (mg/L)	AD-15 Selenium, total (mg/L)	AD-9 Thallium, total (mg/L)
9/29/2016								
9/30/2016		0.003384 (Jo)	0.161 (o)		0.000707 (o)		0.014 (o)	
10/21/2016	0.6227 (Jo)							
1/20/2017								
6/8/2017								
5/23/2018								0.00846 (o)
5/24/2018								
2/21/2019				0.00249 (o)				
7/23/2019	0.5736 (Jo)							
6/2/2021						0.0048 (o)		

WELSH PBAP GWPS			
Constituent Name	**MCL**	**Background Limit**	**GWPS**
Antimony, Total (mg/L)	0.006	0.00317	0.006
Arsenic, Total (mg/L)	0.01	0.00628	0.01
Barium, Total (mg/L)	2	0.512	2
Beryllium, Total (mg/L)	0.004	0.0022	0.004
Cadmium, Total (mg/L)	0.005	0.004	0.005
Chromium, Total (mg/L)	0.1	0.005	0.1
Cobalt, Total (mg/L)	n/a	0.0748	0.0748
Combined Radium, Total (pCi/L)	5	4.72	5
Fluoride, Total (mg/L)	4	0.58	4
Lead, Total (mg/L)	n/a	0.0011	0.0011
Lithium, Total (mg/L)	n/a	0.39	0.39
Mercury, Total (mg/L)	0.002	0.000033	0.002
Molybdenum, Total (mg/L)	n/a	0.00243	0.00243
Selenium, Total (mg/L)	0.05	0.0113	0.05
Thallium, Total (mg/L)	0.002	0.00125	0.002

**MCL = Maximum Contaminant Level*

**GWPS = Groundwater Protection Standard*

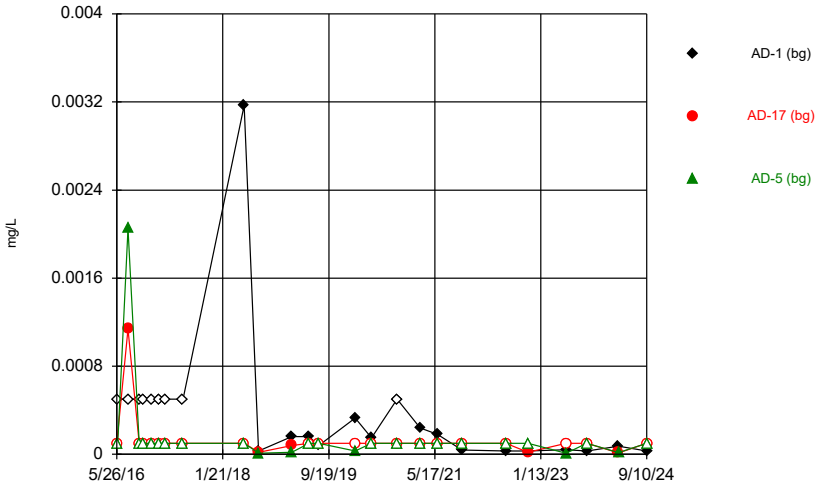
Upper Tolerance Limits

Welsh PBAP Client: Geosyntec Data: Welsh PBAP Printed 11/17/2024, 2:19 PM

Constituent	Upper Lim.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony, total (mg/L)	0.00317	75	n/a	n/a	64	n/a	n/a	0.02134	NP Inter(NDs)
Arsenic, total (mg/L)	0.00628	75	n/a	n/a	25.33	n/a	n/a	0.02134	NP Inter(normality)
Barium, total (mg/L)	0.512	75	n/a	n/a	0	n/a	n/a	0.02134	NP Inter(normality)
Beryllium, total (mg/L)	0.0022	75	n/a	n/a	8	n/a	n/a	0.02134	NP Inter(normality)
Cadmium, total (mg/L)	0.004	73	n/a	n/a	32.88	n/a	n/a	0.02365	NP Inter(normality)
Chromium, total (mg/L)	0.005	74	n/a	n/a	12.16	n/a	n/a	0.02247	NP Inter(normality)
Cobalt, total (mg/L)	0.0748	75	n/a	n/a	0	n/a	n/a	0.02134	NP Inter(normality)
Combined Radium 226 + 228 (pCi/L)	4.718	75	1.477	0.3523	0	None	sqrt(x)	0.05	Inter
Fluoride, total (mg/L)	0.583	78	n/a	n/a	37.18	n/a	n/a	0.0183	NP Inter(normality)
Lead, total (mg/L)	0.0011	73	n/a	n/a	49.32	n/a	n/a	0.02365	NP Inter(normality)
Lithium, total (mg/L)	0.394	75	n/a	n/a	1.333	n/a	n/a	0.02134	NP Inter(normality)
Mercury, total (mg/L)	0.000033	75	n/a	n/a	60	n/a	n/a	0.02134	NP Inter(NDs)
Molybdenum, total (mg/L)	0.00243	74	n/a	n/a	70.27	n/a	n/a	0.02247	NP Inter(NDs)
Selenium, total (mg/L)	0.0113	75	n/a	n/a	36	n/a	n/a	0.02134	NP Inter(normality)
Thallium, total (mg/L)	0.001251	75	n/a	n/a	84	n/a	n/a	0.02134	NP Inter(NDs)

Sanitas™ v.10.0.23a Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

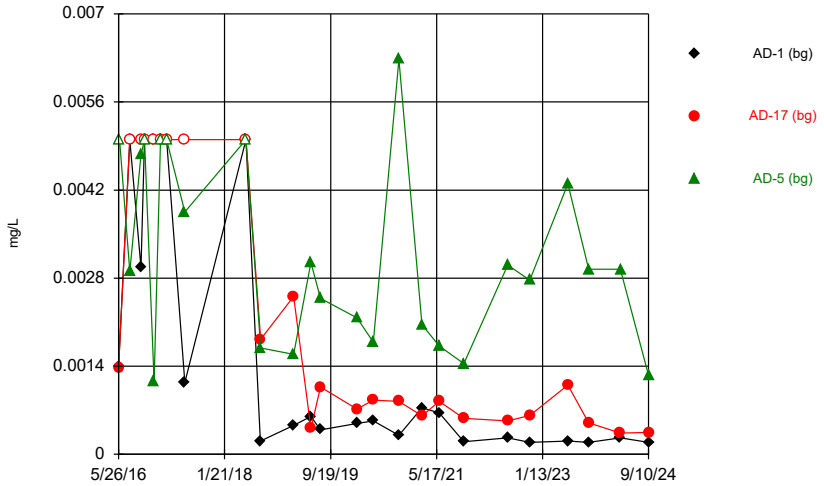
Time Series



Constituent: Antimony, total Analysis Run 11/17/2024 2:18 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.23a Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

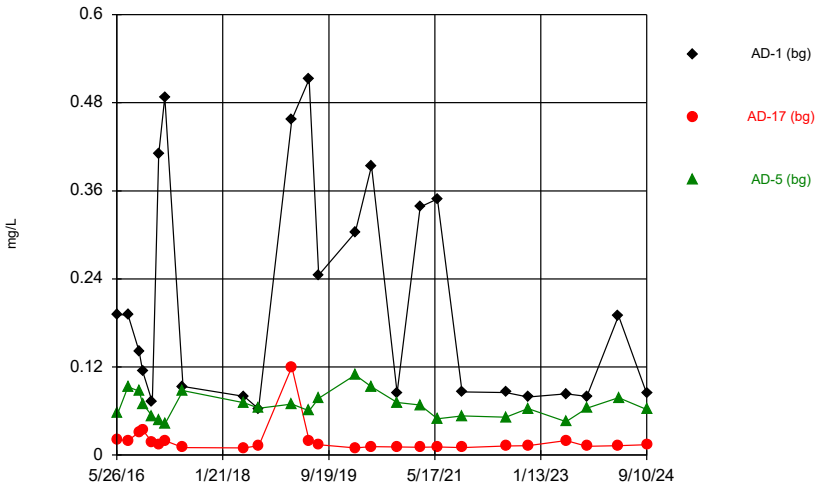
Time Series



Constituent: Arsenic, total Analysis Run 11/17/2024 2:18 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.23a Software licensed to Groundwater Stats Consulting. UG

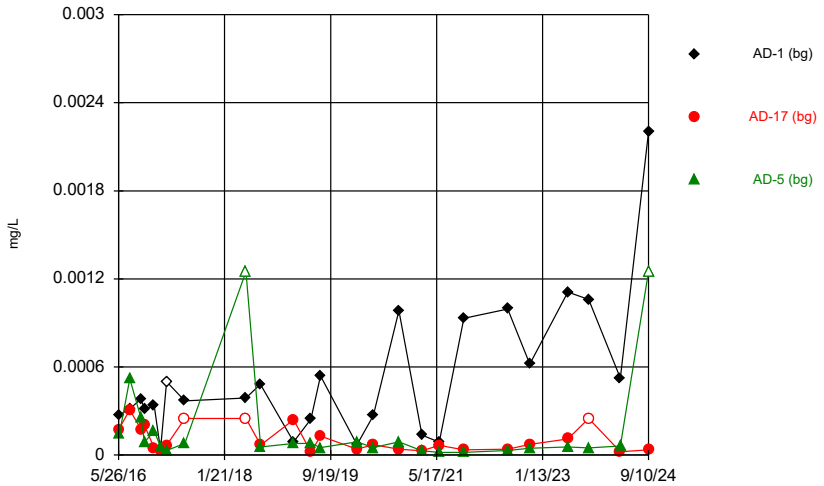
Time Series



Constituent: Barium, total Analysis Run 11/17/2024 2:18 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.23a Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

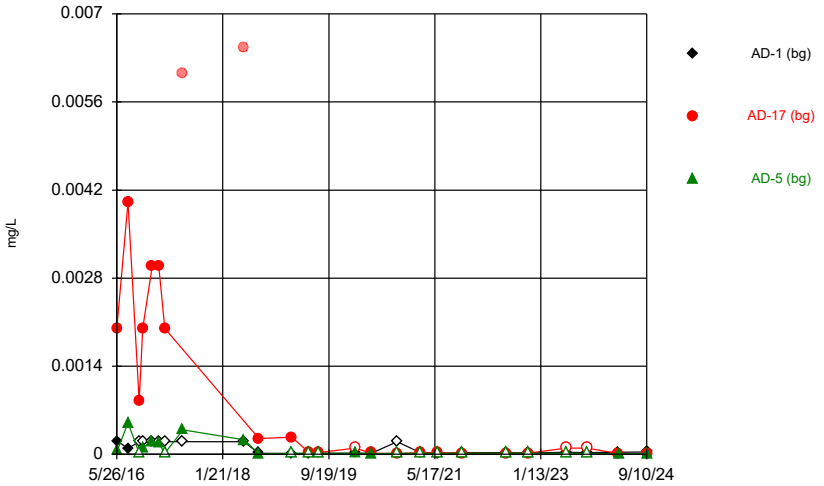
Time Series



Constituent: Beryllium, total Analysis Run 11/17/2024 2:18 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.23a Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

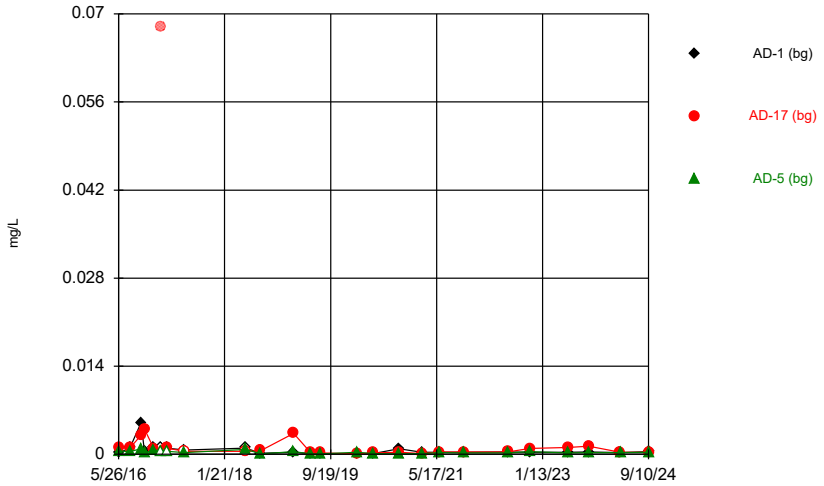
Time Series



Constituent: Cadmium, total Analysis Run 11/17/2024 2:18 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.23a Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

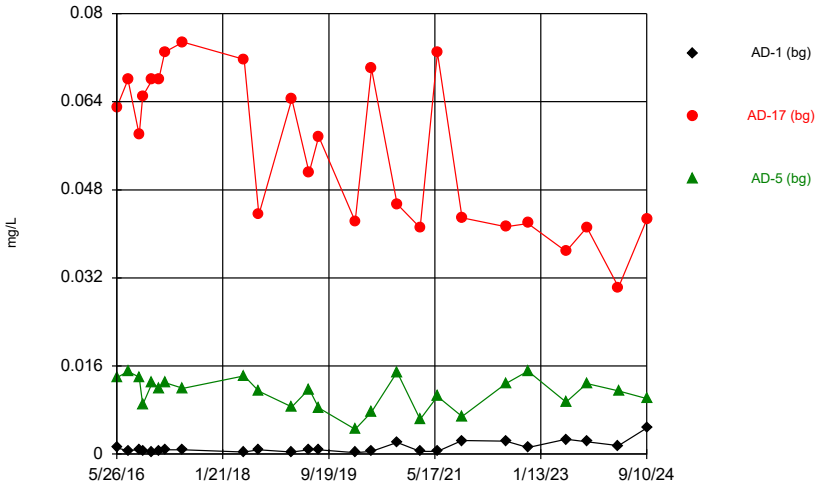
Time Series



Constituent: Chromium, total Analysis Run 11/17/2024 2:18 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.23a Software licensed to Groundwater Stats Consulting. UG

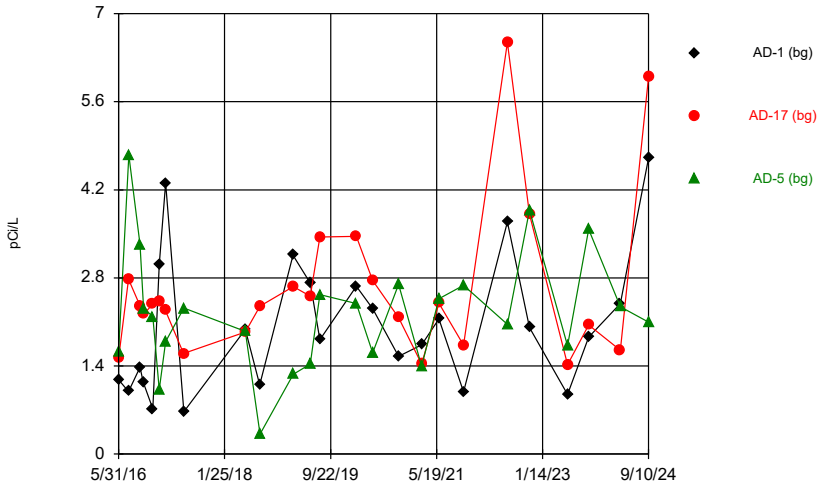
Time Series



Constituent: Cobalt, total Analysis Run 11/17/2024 2:18 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.23a Software licensed to Groundwater Stats Consulting. UG

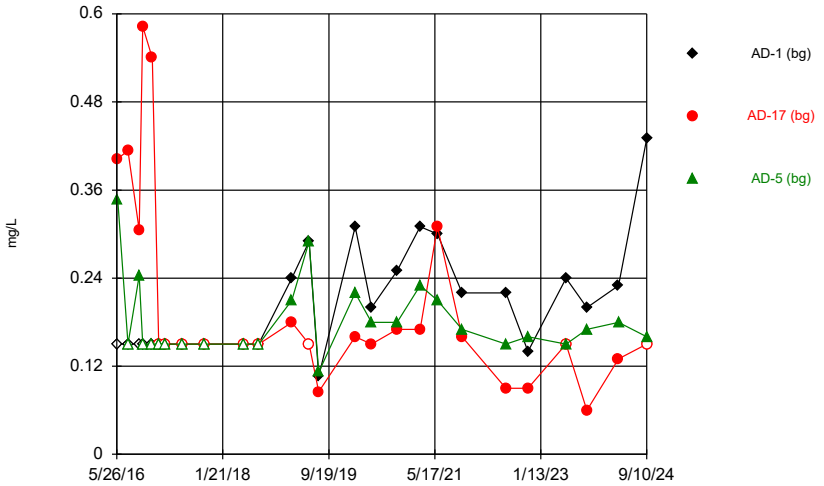
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 11/17/2024 2:18 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.23a Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

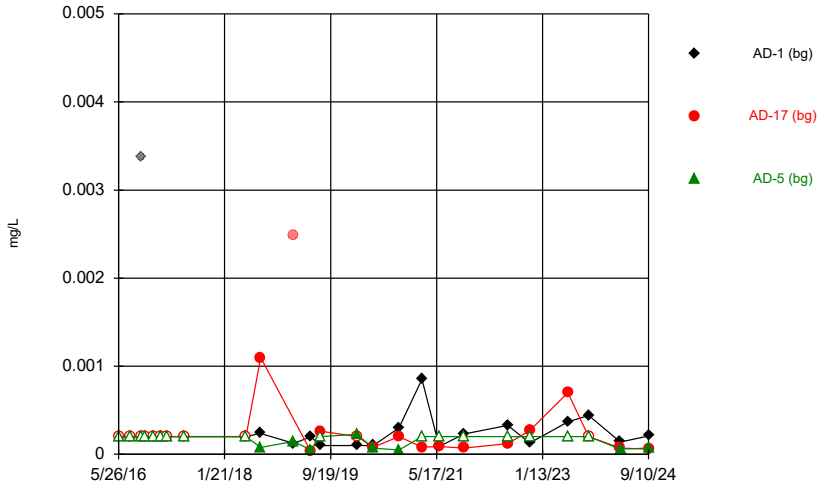
Time Series



Constituent: Fluoride, total Analysis Run 11/17/2024 2:18 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.23a Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

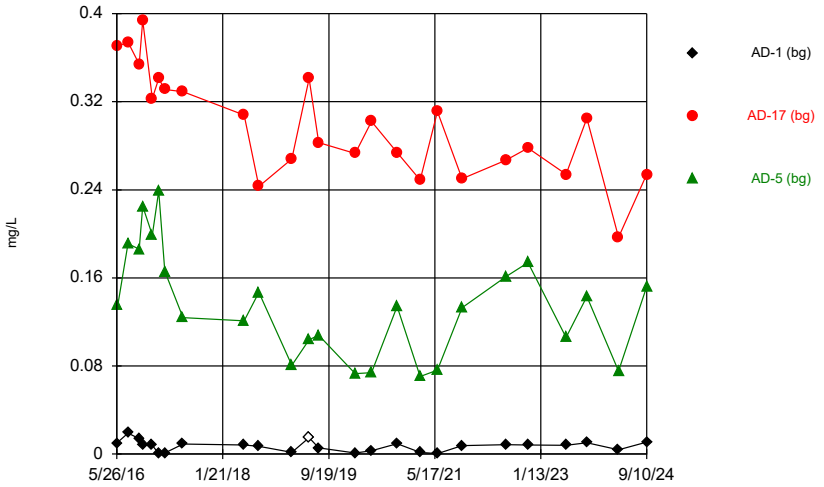
Time Series



Constituent: Lead, total Analysis Run 11/17/2024 2:18 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.23a Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

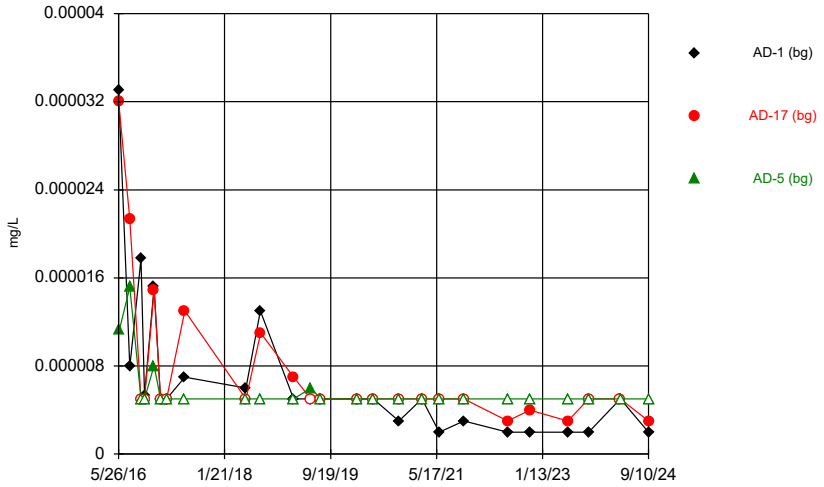
Time Series



Constituent: Lithium, total Analysis Run 11/17/2024 2:18 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.23a Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

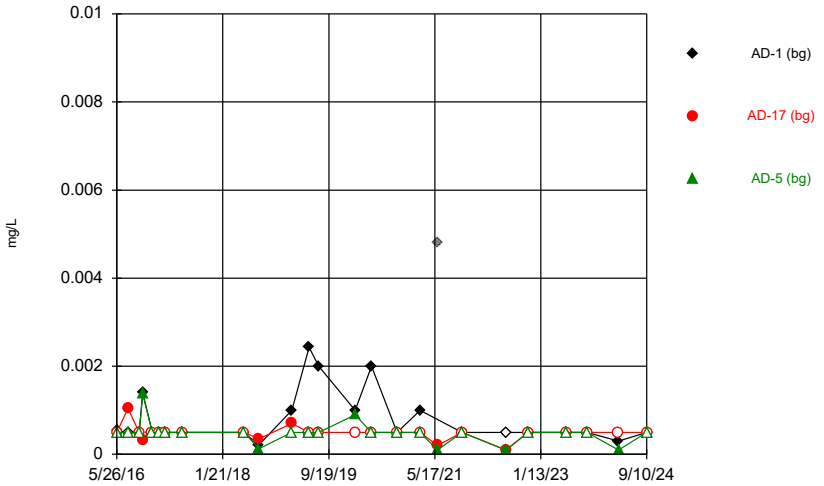
Time Series



Constituent: Mercury, total Analysis Run 11/17/2024 2:18 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.23a Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

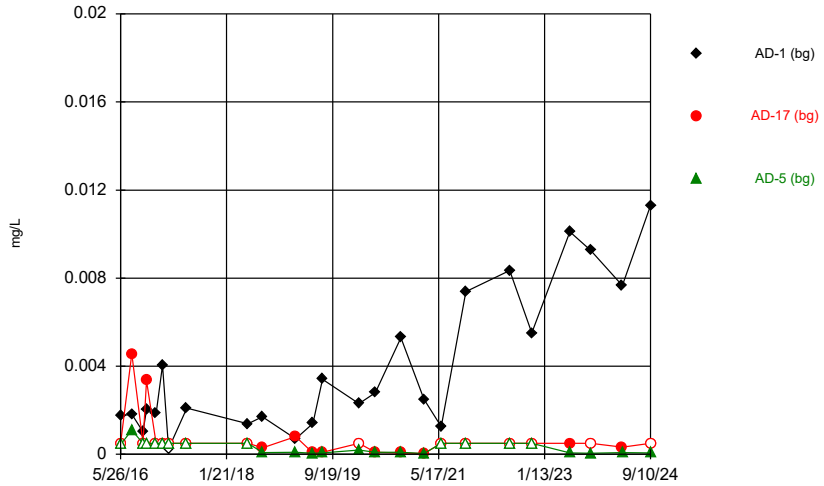
Time Series



Constituent: Molybdenum, total Analysis Run 11/17/2024 2:18 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.23a Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

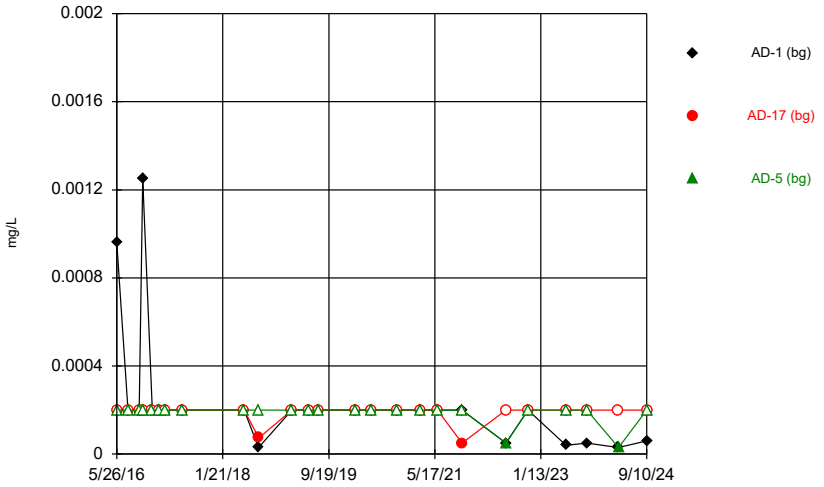
Time Series



Constituent: Selenium, total Analysis Run 11/17/2024 2:18 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.23a Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series

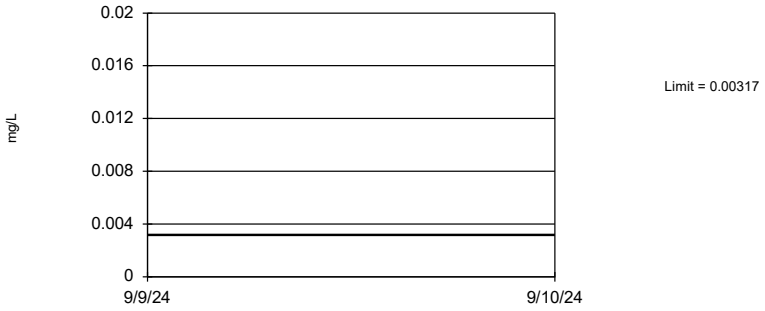


Constituent: Thallium, total Analysis Run 11/17/2024 2:18 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.23a Software licensed to Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric



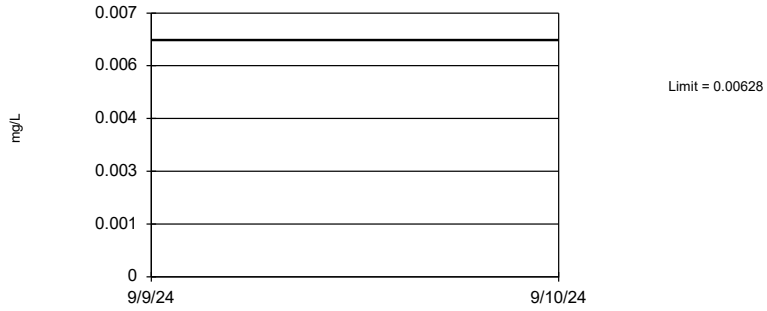
Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 75 background values. 64% NDs. 93.95% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02134.

Constituent: Antimony, total Analysis Run 11/17/2024 2:18 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.23a Software licensed to Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric



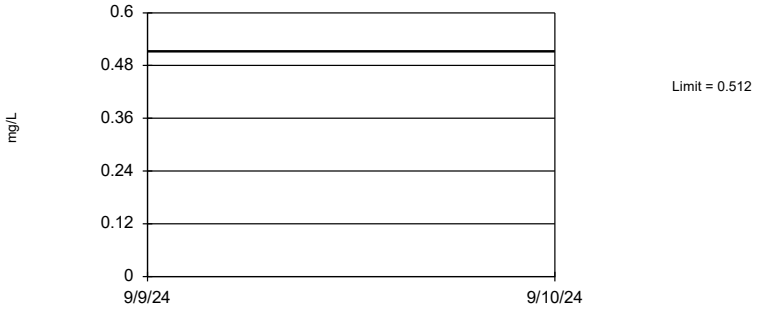
Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 75 background values. 25.33% NDs. 93.95% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02134.

Constituent: Arsenic, total Analysis Run 11/17/2024 2:18 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.23a Software licensed to Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric



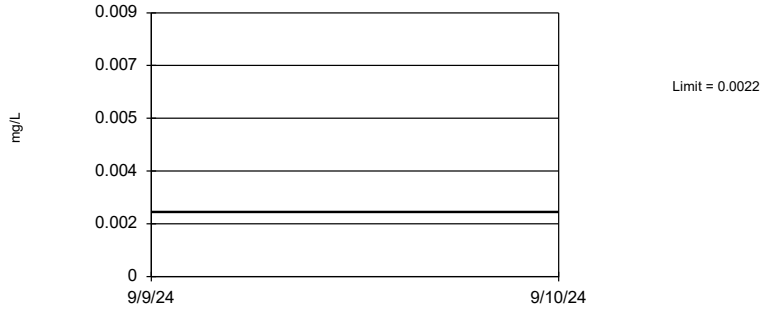
Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 75 background values. 93.95% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02134.

Constituent: Barium, total Analysis Run 11/17/2024 2:18 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.23a Software licensed to Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric



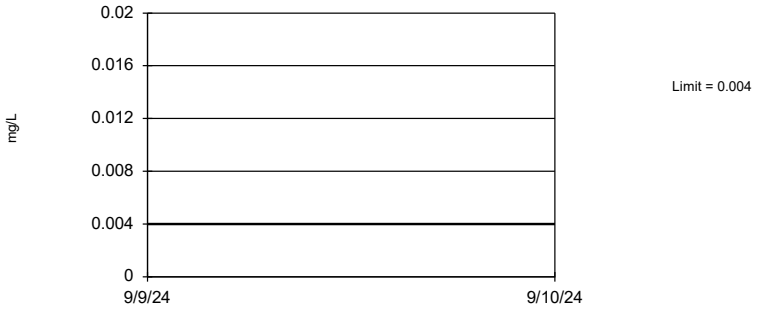
Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 75 background values. 8% NDs. 93.95% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02134.

Constituent: Beryllium, total Analysis Run 11/17/2024 2:18 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.23a Software licensed to Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 73 background values. 32.88% NDs. 93.95% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02365.

Constituent: Cadmium, total Analysis Run 11/17/2024 2:18 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.23a Software licensed to Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric



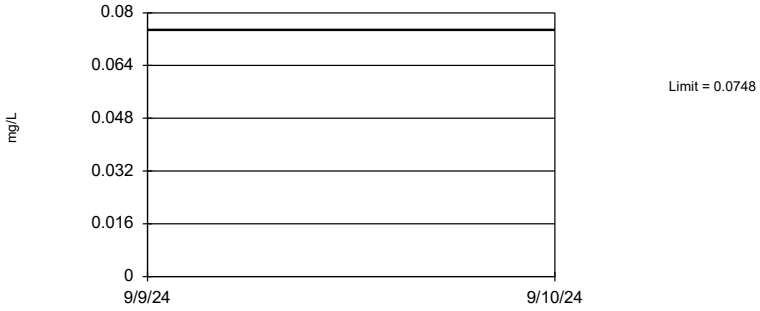
Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 74 background values. 12.16% NDs. 93.95% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02247.

Constituent: Chromium, total Analysis Run 11/17/2024 2:18 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.23a Software licensed to Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric



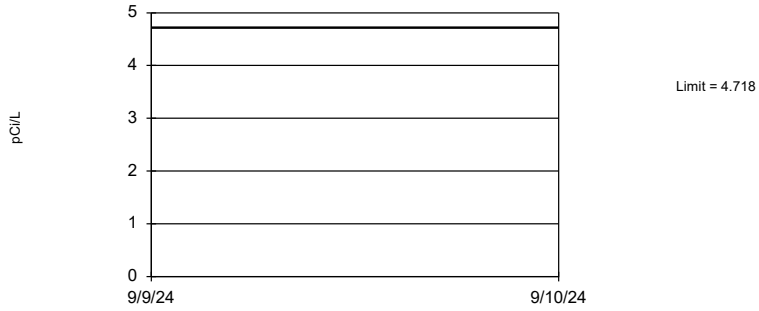
Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 75 background values. 93.95% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02134.

Constituent: Cobalt, total Analysis Run 11/17/2024 2:18 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.23a Software licensed to Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Parametric



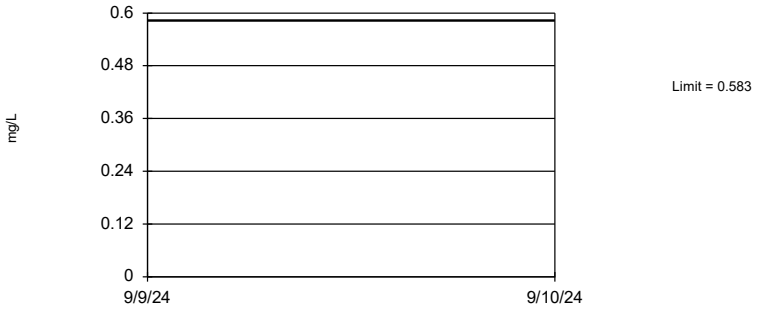
95% coverage. Background Data Summary (based on square root transformation): Mean=1.477, Std. Dev.=0.3523, n=75. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9655, critical = 0.956. Report alpha = 0.05.

Constituent: Combined Radium 226 + 228 Analysis Run 11/17/2024 2:18 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.23a Software licensed to Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric



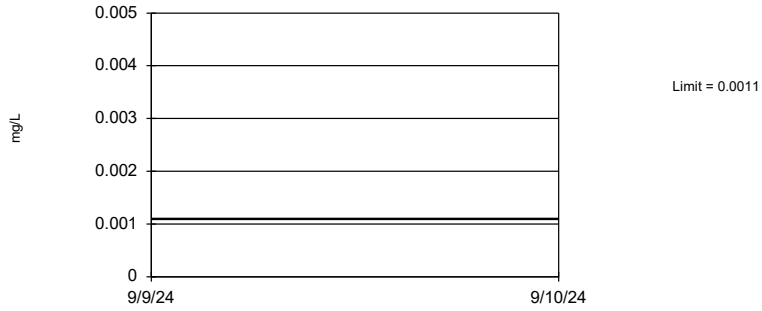
Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 78 background values. 37.18% NDs. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.0183.

Constituent: Fluoride, total Analysis Run 11/17/2024 2:18 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.23a Software licensed to Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric



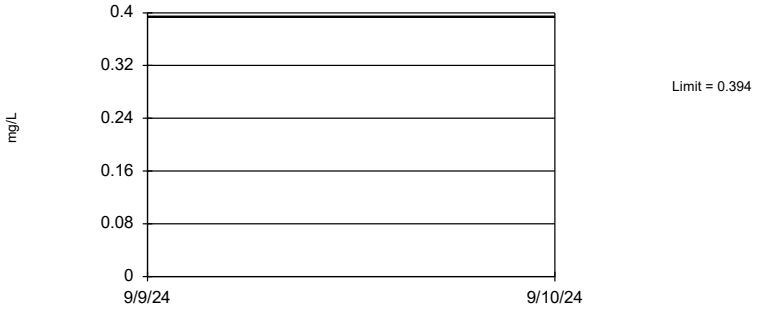
Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 73 background values. 49.32% NDs. 93.95% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02365.

Constituent: Lead, total Analysis Run 11/17/2024 2:18 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.23a Software licensed to Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric



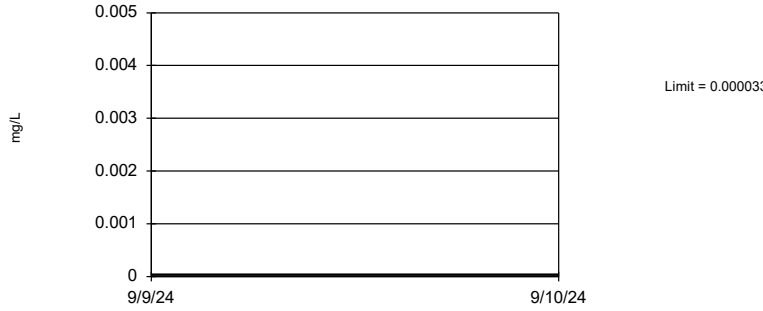
Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 75 background values. 1.333% NDs. 93.95% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02134.

Constituent: Lithium, total Analysis Run 11/17/2024 2:18 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.23a Software licensed to Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric



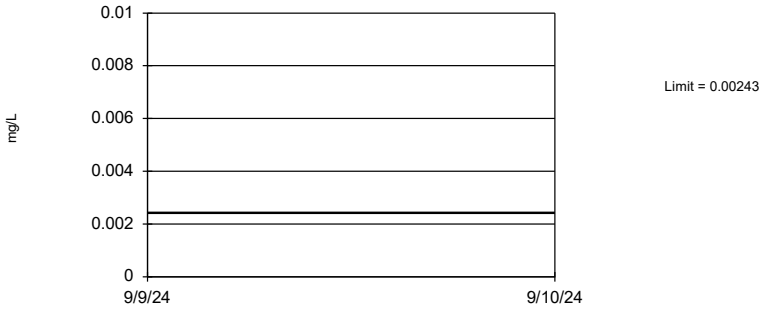
Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 75 background values. 60% NDs. 93.95% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02134.

Constituent: Mercury, total Analysis Run 11/17/2024 2:18 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.23a Software licensed to Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric



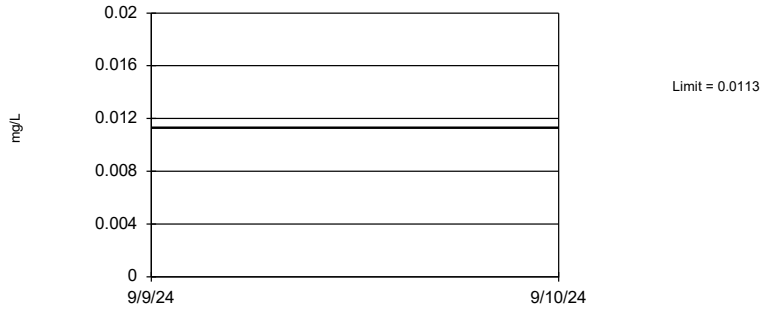
Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 74 background values. 70.27% NDs. 93.95% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02247.

Constituent: Molybdenum, total Analysis Run 11/17/2024 2:18 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.23a Software licensed to Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric



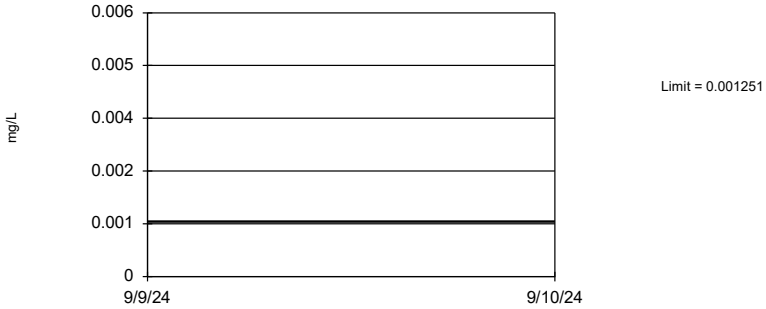
Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 75 background values. 36% NDs. 93.95% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02134.

Constituent: Selenium, total Analysis Run 11/17/2024 2:18 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.23a Software licensed to Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 75 background values. 84% NDs. 93.95% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02134.

Constituent: Thallium, total Analysis Run 11/17/2024 2:18 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

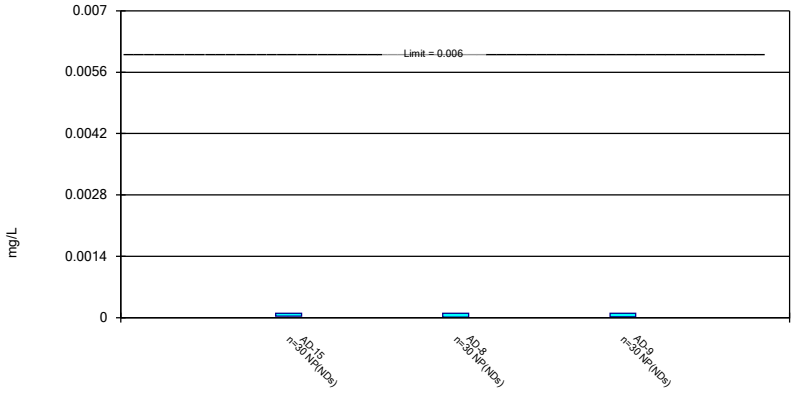
Confidence Interval Summary Table - All Results (No Significant)

Welsh PBAP Client: Geosyntec Data: Welsh PBAP Printed 7/14/2025, 5:59 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony, total (mg/L)	AD-15	0.0001	0.00003	0.006	No	30	0.00006997	0.00003782	56.67	None	No	0.01	NP (NDs)
Antimony, total (mg/L)	AD-8	0.0001	0.000013	0.006	No	30	0.0002275	0.000615	70	None	No	0.01	NP (NDs)
Antimony, total (mg/L)	AD-9	0.0001	0.000015	0.006	No	30	0.000082	0.00003663	80	None	No	0.01	NP (NDs)
Arsenic, total (mg/L)	AD-15	0.005539	0.002864	0.01	No	29	0.005335	0.005155	0	None	ln(x)	0.01	Param.
Arsenic, total (mg/L)	AD-8	0.001063	0.00025	0.01	No	30	0.001579	0.002104	26.67	None	No	0.01	NP (normality)
Arsenic, total (mg/L)	AD-9	0.00168	0.0003	0.01	No	30	0.00194	0.002079	30	None	No	0.01	NP (normality)
Barium, total (mg/L)	AD-15	0.124	0.0751	2	No	29	0.1216	0.08425	0	None	No	0.01	NP (normality)
Barium, total (mg/L)	AD-8	0.02898	0.02377	2	No	30	0.02662	0.006196	0	None	sqrt(x)	0.01	Param.
Barium, total (mg/L)	AD-9	0.052	0.037	2	No	30	0.04721	0.01699	0	None	No	0.01	NP (normality)
Beryllium, total (mg/L)	AD-15	0.0003975	0.0001609	0.004	No	29	0.0004279	0.0005349	0	None	ln(x)	0.01	Param.
Beryllium, total (mg/L)	AD-8	0.0005	0.00003	0.004	No	30	0.0003307	0.0002285	63.33	None	No	0.01	NP (NDs)
Beryllium, total (mg/L)	AD-9	0.001133	0.0007182	0.004	No	30	0.0009254	0.0004609	0	None	No	0.01	Param.
Cadmium, total (mg/L)	AD-15	0.0001	0.000011	0.005	No	29	0.0001056	0.00017	3.448	None	No	0.01	NP (normality)
Cadmium, total (mg/L)	AD-8	0.00005	0.000021	0.005	No	30	0.0003187	0.0004537	30	None	No	0.01	NP (normality)
Cadmium, total (mg/L)	AD-9	0.0005382	0.00022	0.005	No	30	0.0005855	0.0007241	0	None	ln(x)	0.01	Param.
Chromium, total (mg/L)	AD-15	0.00601	0.00035	0.1	No	29	0.006505	0.01336	0	None	No	0.01	NP (normality)
Chromium, total (mg/L)	AD-8	0.0003919	0.00017	0.1	No	30	0.0004607	0.0004254	16.67	Kaplan-Meier	sqrt(x)	0.01	Param.
Chromium, total (mg/L)	AD-9	0.0005925	0.0004107	0.1	No	30	0.0006557	0.000282	26.67	Kaplan-Meier	No	0.01	Param.
Cobalt, total (mg/L)	AD-15	0.00549	0.00294	0.0748	No	29	0.00543	0.004473	0	None	No	0.01	NP (normality)
Cobalt, total (mg/L)	AD-8	0.005634	0.003588	0.0748	No	30	0.004611	0.002276	0	None	No	0.01	Param.
Cobalt, total (mg/L)	AD-9	0.02212	0.01726	0.0748	No	30	0.01997	0.005821	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	AD-15	2.258	1.578	5	No	29	1.918	0.7417	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	AD-8	1.284	0.6704	5	No	30	1.236	1.219	0	None	ln(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	AD-9	2.518	1.829	5	No	30	2.174	0.7672	0	None	No	0.01	Param.
Fluoride, total (mg/L)	AD-15	0.11	0.07	4	No	29	0.09848	0.03809	31.03	None	No	0.01	NP (normality)
Fluoride, total (mg/L)	AD-8	0.812	0.6446	4	No	30	0.6975	0.2293	6.667	None	x^2	0.01	Param.
Fluoride, total (mg/L)	AD-9	0.19	0.15	4	No	28	0.1817	0.08028	21.43	None	No	0.01	NP (normality)
Lead, total (mg/L)	AD-15	0.002875	0.00009	0.0011	No	29	0.002753	0.005476	10.34	None	No	0.01	NP (normality)
Lead, total (mg/L)	AD-8	0.0002	0.0001	0.0011	No	30	0.0001581	0.00006349	63.33	None	No	0.01	NP (NDs)
Lead, total (mg/L)	AD-9	0.0002	0.00008	0.0011	No	30	0.0001627	0.00009469	30	None	No	0.01	NP (normality)
Lithium, total (mg/L)	AD-15	0.008	0.00338	0.39	No	30	0.01218	0.02701	0	None	No	0.01	NP (normality)
Lithium, total (mg/L)	AD-8	0.09397	0.07506	0.39	No	30	0.08452	0.02103	0	None	No	0.01	Param.
Lithium, total (mg/L)	AD-9	1.11	0.207	0.39	No	30	0.6571	0.4727	0	None	No	0.01	NP (normality)
Mercury, total (mg/L)	AD-15	0.00001932	0.000005	0.002	No	28	0.00001792	0.000025	53.57	None	No	0.01	NP (NDs)
Mercury, total (mg/L)	AD-8	0.000008	0.000005	0.002	No	29	0.000005955	0.000003152	86.21	None	No	0.01	NP (NDs)
Mercury, total (mg/L)	AD-9	0.000006	0.000003	0.002	No	29	0.000006972	0.000008549	34.48	None	No	0.01	NP (normality)
Molybdenum, total (mg/L)	AD-15	0.0005868	0.0005	0.00243	No	30	0.000779	0.0008136	70	None	No	0.01	NP (NDs)
Molybdenum, total (mg/L)	AD-8	0.0008389	0.0002	0.00243	No	30	0.0005298	0.0002359	80	None	No	0.01	NP (NDs)
Molybdenum, total (mg/L)	AD-9	0.0005	0.00011	0.00243	No	30	0.0004737	0.0001002	93.33	None	No	0.01	NP (NDs)
Selenium, total (mg/L)	AD-15	0.001186	0.0005171	0.05	No	29	0.001038	0.001086	6.897	None	x^(1/3)	0.01	Param.
Selenium, total (mg/L)	AD-8	0.0005	0.00008	0.05	No	30	0.0004618	0.0004717	53.33	None	No	0.01	NP (NDs)
Selenium, total (mg/L)	AD-9	0.00051	0.0003	0.05	No	30	0.000872	0.001548	13.33	None	No	0.01	NP (normality)
Thallium, total (mg/L)	AD-15	0.0005	0.00006	0.002	No	30	0.0003333	0.0003738	40	None	No	0.01	NP (normality)
Thallium, total (mg/L)	AD-8	0.0005	0.0001	0.002	No	30	0.0003386	0.0003533	36.67	None	No	0.01	NP (normality)
Thallium, total (mg/L)	AD-9	0.00028	0.0002	0.002	No	29	0.0003683	0.0003736	24.14	None	No	0.01	NP (normality)

Non-Parametric Confidence Interval

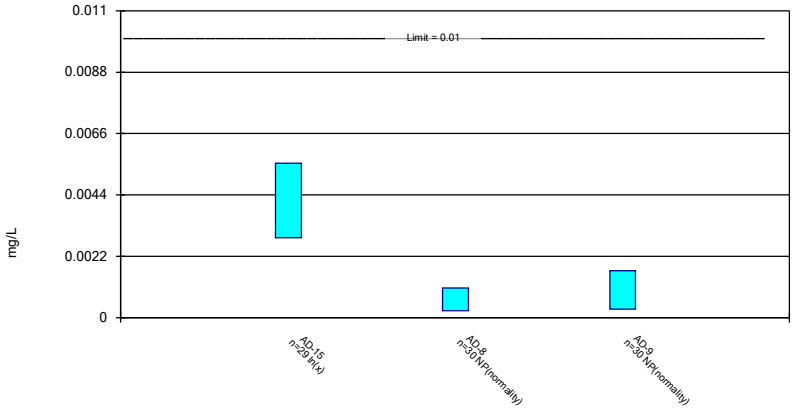
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Antimony, total Analysis Run 7/14/2025 5:58 PM View: Confidence Intervals
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Parametric and Non-Parametric (NP) Confidence Interval

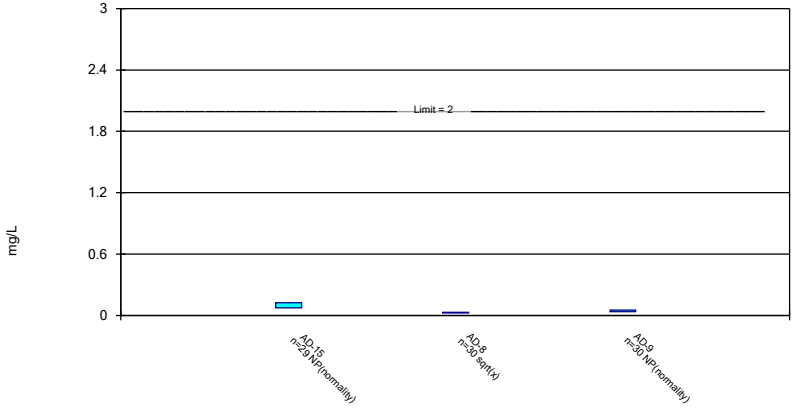
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic, total Analysis Run 7/14/2025 5:58 PM View: Confidence Intervals
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Parametric and Non-Parametric (NP) Confidence Interval

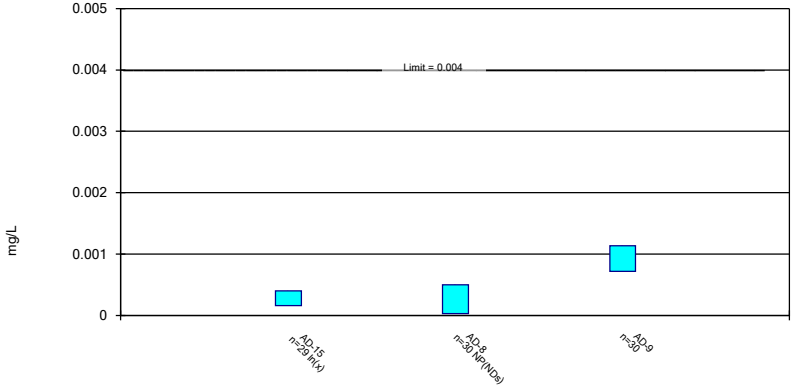
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium, total Analysis Run 7/14/2025 5:58 PM View: Confidence Intervals
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Parametric and Non-Parametric (NP) Confidence Interval

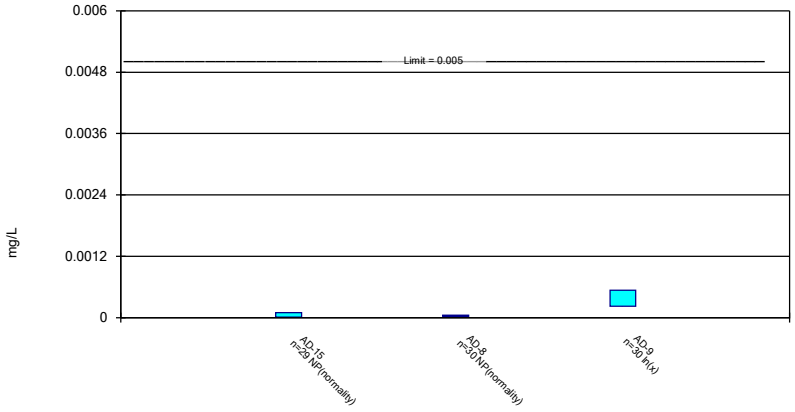
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium, total Analysis Run 7/14/2025 5:58 PM View: Confidence Intervals
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

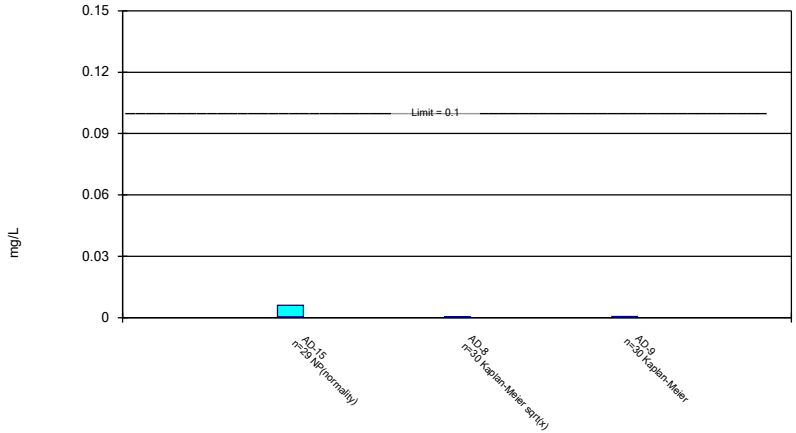


Constituent: Cadmium, total Analysis Run 7/14/2025 5:58 PM View: Confidence Intervals
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.27 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

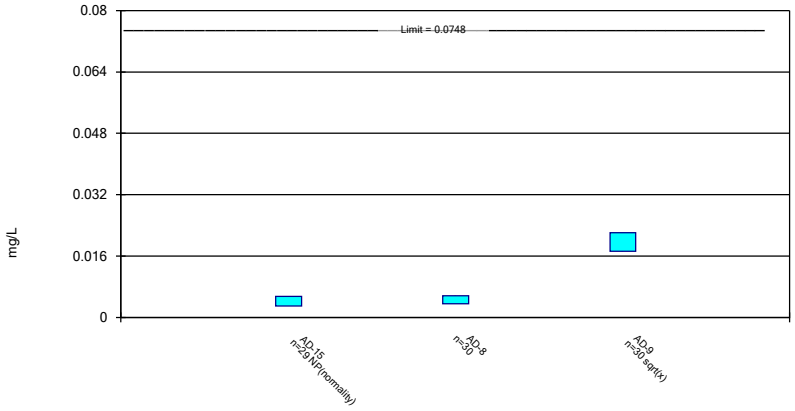


Constituent: Chromium, total Analysis Run 7/14/2025 5:58 PM View: Confidence Intervals
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.27 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

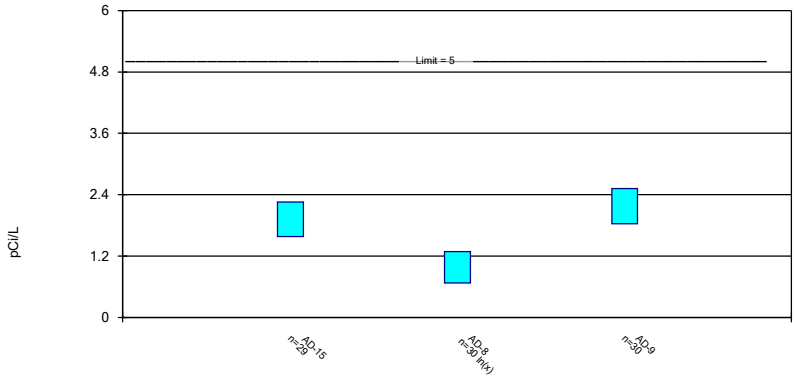


Constituent: Cobalt, total Analysis Run 7/14/2025 5:58 PM View: Confidence Intervals
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.27 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric Confidence Interval

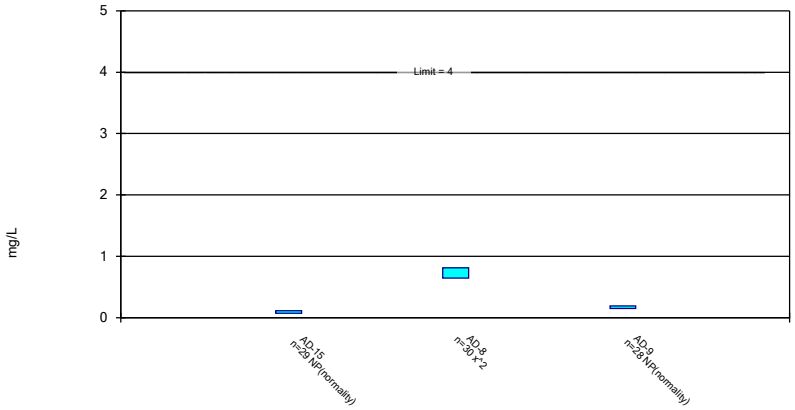
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 7/14/2025 5:58 PM View: Confidence Intervals
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

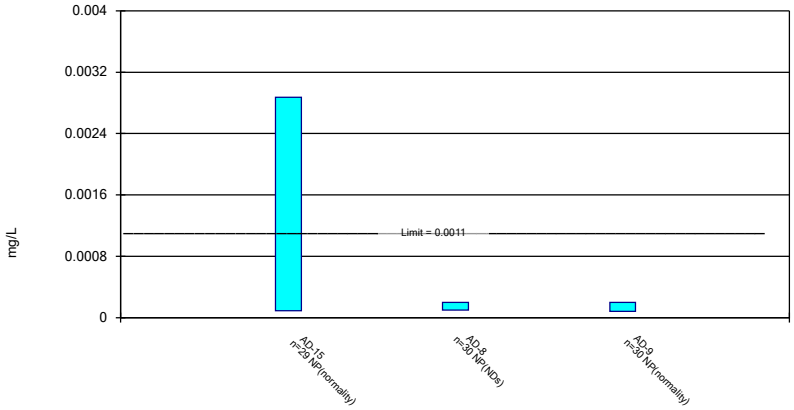


Constituent: Fluoride, total Analysis Run 7/14/2025 5:58 PM View: Confidence Intervals
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.27 Sanitas software utilized by Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

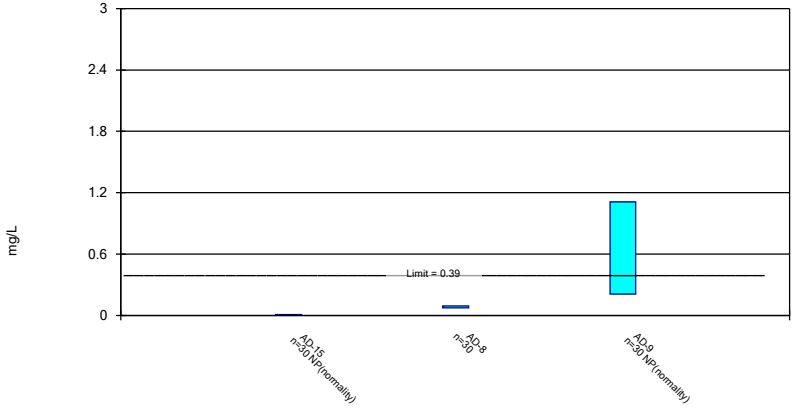


Constituent: Lead, total Analysis Run 7/14/2025 5:58 PM View: Confidence Intervals
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.27 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

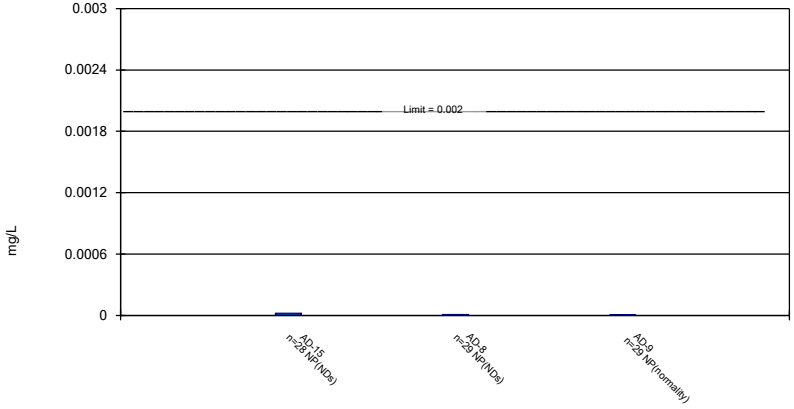


Constituent: Lithium, total Analysis Run 7/14/2025 5:58 PM View: Confidence Intervals
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.0.27 Sanitas software utilized by Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

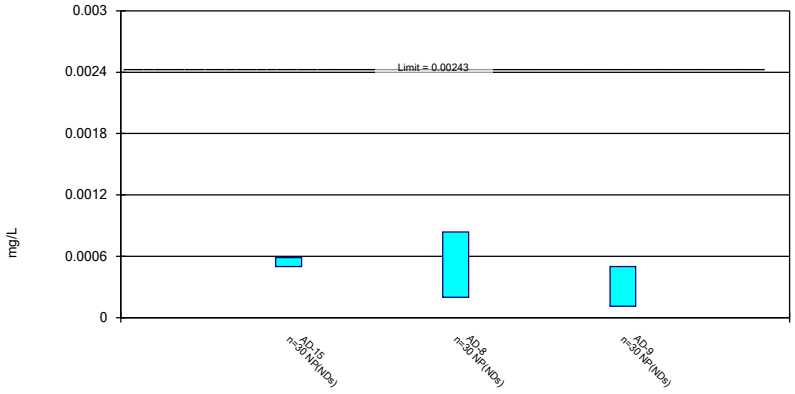
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Mercury, total Analysis Run 7/14/2025 5:58 PM View: Confidence Intervals
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Non-Parametric Confidence Interval

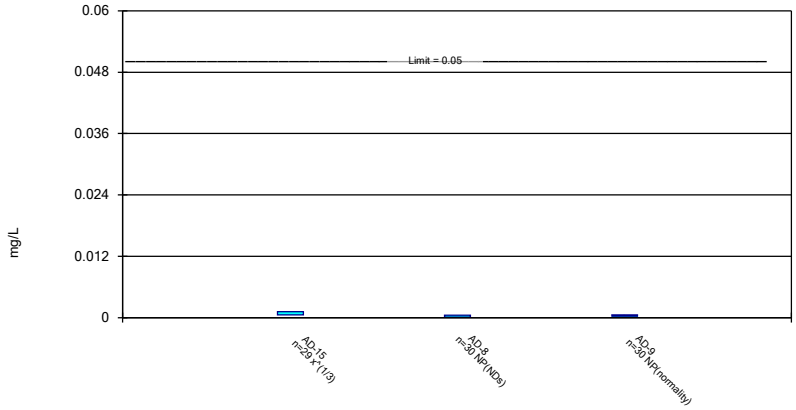
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Molybdenum, total Analysis Run 7/14/2025 5:58 PM View: Confidence Intervals
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Parametric and Non-Parametric (NP) Confidence Interval

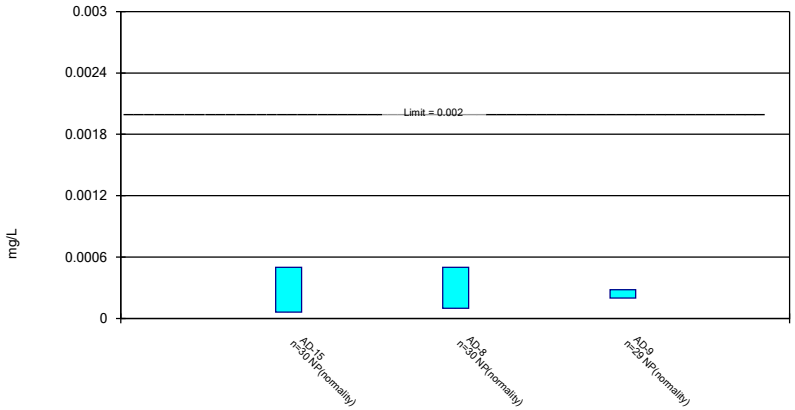
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium, total Analysis Run 7/14/2025 5:58 PM View: Confidence Intervals
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Thallium, total Analysis Run 7/14/2025 5:58 PM View: Confidence Intervals
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Geosyntec consultants

engineers | scientists | innovators

STATISTICAL ANALYSIS SUMMARY, 2025 2ND SEMIANNUAL EVENT PRIMARY BOTTOM ASH POND

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Attachment B: Data Quality Review Memoranda

Attachment C: Statistical Analysis Output

ACRONYMS AND ABBREVIATIONS

CCR	coal combustion residuals
GWPS	groundwater protection standard
LPL	lower prediction limit
mg/L	milligram per liter
PBAP	Primary Bottom Ash Pond
PQL	practical quantitation limit
QA/QC	quality assurance/quality control
SSI	statistically significant increase
SSL	statistically significant level
SU	standard units
TCEQ	Texas Commission on Environmental Quality
TDS	total dissolved solids
UPL	upper prediction limit

1. EXECUTIVE SUMMARY

In accordance with Texas Commission on Environmental Quality's (TCEQ) regulations regarding the disposal of coal combustion residuals (CCRs) in landfills and surface impoundments (Title 30 Chapter 352, "CCR rule"), groundwater monitoring has been conducted at the Primary Bottom Ash Pond (PBAP), an existing CCR unit at the Welsh Power Plant in Pittsburg, Texas. Recent groundwater monitoring results were used to identify concentrations of Appendix IV constituents that are above site-specific groundwater protection standards (GWPSs).

Based on detection monitoring conducted in 2017 and 2018, statistically significant increases (SSIs) over background were concluded for boron at the PBAP. An alternative source was not identified at the time, so assessment monitoring was initiated and GWPSs were set in accordance with § 352.951(b) (Geosyntec 2018). A semiannual sampling event was conducted at the PBAP in September 2025 in accordance with § 352.951(a). The results of the September 2025 assessment sampling event are documented in this report.

Before the statistical analyses were conducted, the groundwater data underwent several validation tests, including those for completeness, sample tracking accuracy, transcription errors, and consistent use of measurement units. No data quality issues that would impact data usability were identified.

The monitoring data were submitted to Groundwater Stats Consulting, LLC for statistical analysis. GWPSs were reestablished for the Appendix IV parameters. Confidence intervals were calculated for Appendix IV parameters at the compliance wells to assess whether any were present at statistically significant levels (SSLs) above the corresponding GWPS. No SSLs were identified; however, concentrations of Appendix III parameters remained above background. Certification of the selected statistical methods by a qualified professional engineer is documented in Attachment A.

2. PRIMARY BOTTOM ASH POND EVALUATION

2.1 Data Validation and QA/QC

During the September 2025 assessment monitoring event, one set of samples was collected for analysis from each background and compliance well. Samples from September 2025 were analyzed for all Appendix III and Appendix IV parameters. A summary of data collected during this assessment monitoring event may be found in Table 1.

Chemical analysis was completed by a National Environmental Laboratory Accreditation Program–certified analytical laboratory. The laboratory completed analysis of quality assurance and quality control (QA/QC) samples such as laboratory reagent blanks, continuing calibration verification samples, and laboratory fortified blanks.

A data quality review was completed to assess whether the data met the objectives outlined in TCEQ Draft Technical Guidance No. 32 related to groundwater sampling and analysis (TCEQ 2020). As noted in the review memoranda (Attachment B), the data were determined usable for supporting project objectives. The analytical data were imported into a Microsoft Access database, where checks were completed to assess the accuracy of sample location identification and analyte identification. Where necessary, unit conversions were applied to standardize reported units across all sampling events. Exported data files were created for use with the Sanitas™ v.10.1.02 statistics software. The export file was checked against the analytical data for transcription errors and completeness.

2.2 Statistical Analysis

Statistical analyses for the PBAP were conducted in accordance with the December 2021 Statistical Analysis Plan (Geosyntec 2021). Time series plots and results for all completed statistical tests are provided in Attachment C. The data obtained in September 2025 were screened for potential outliers. Potential outliers were identified for antimony, cadmium, chromium, and lead. While not previously identified as an outlier, the lead value at AD-1 sampled in April 2025 was flagged and removed from the dataset. All other potential outliers were included in the dataset because values were similar to concentrations in upgradient wells or below the respective maximum contaminant level.

2.2.1 Establishment of GWPSs

A GWPS was established for each Appendix IV parameter in accordance with § 352.951(b) and the Statistical Analysis Plan (Geosyntec 2021). The established GWPS was set to whichever was greater of the background concentration and the maximum contaminant level for each Appendix IV parameter. To determine background concentrations, an upper tolerance limit was calculated using data that were pooled from the background wells collected during the background monitoring and assessment monitoring events. A tolerance limit was calculated parametrically with 95% coverage and 95% confidence for combined radium. Nonparametric tolerance limits were calculated for arsenic, barium, beryllium, cadmium, chromium, cobalt, fluoride, lead, lithium, and selenium, due to apparent nonnormal distributions, and for antimony, mercury, molybdenum, and thallium, due to a high nondetect frequency. Upper tolerance limits and the final GWPSs are summarized in Table 2.

2.2.2 Evaluation of Potential Appendix IV SSLs

A confidence interval was constructed for each Appendix IV parameter at each compliance well. Confidence limits were generally calculated parametrically ($\alpha = 0.01$), but nonparametric confidence limits were calculated in some cases (e.g., when the data did not appear to be normally distributed or when the nondetect frequency was too high). An SSL was concluded if the lower confidence limit was above the GWPS (i.e., if the entire confidence interval was above the GWPS). The calculated confidence limits (Attachment C) were compared to the GWPS provided in Table 2.

No SSLs were identified at the PBAP.

2.2.3 Establishment of Appendix III Prediction Limits

Upper prediction limits (UPLs) were previously established for all Appendix III parameters following the background monitoring period (Geosyntec 2018). Intrawell tests were used to evaluate potential SSIs for calcium, chloride, fluoride, sulfate, and total dissolved solids (TDS). Interwell tests were used to evaluate potential SSIs for boron and pH. Interwell and intrawell prediction limits are updated periodically during the assessment monitoring period as sufficient data become available.

For intrawell tests, insufficient data was available to compare against the existing background dataset, and so the prediction limits were not updated for the intrawell tests at this time. The intrawell prediction limits were previously calculated using historical data through April 2024 (Geosyntec 2024). The established intrawell prediction limits were used to evaluate the potential SSIs for calcium, chloride, sulfate, and TDS.

Prediction limits for the interwell tests were calculated using data collected through the September 2024 assessment monitoring event. New background well data were tested for outliers before being added to the background data set. Background well data were also evaluated for statistically significant trends using the Sen's Slope/Mann-Kendall trend test, and the results are included in Attachment C. The boron and pH prediction limits were calculated using a one-of-two retesting procedure, as during detection monitoring.

After the revised background set was established, a parametric or nonparametric analysis was selected based on the distribution of the data and the frequency of nondetect data. Estimated results under the reporting limit (i.e., practical quantitation limit [PQL]) but above the method detection limit – i.e., "J-flagged" data – were considered detections and the estimated results were used in the statistical analyses. Nonparametric analyses were selected for datasets with at least 50% nondetect data or datasets that could not be normalized by transformation. Parametric analyses were selected for datasets (either transformed or untransformed) that passed the Shapiro-Wilk / Shapiro-Francía test for normality. The Kaplan-Meier nondetect adjustment was applied to datasets with between 15% and 50% nondetect data. For datasets with fewer than 15% nondetect data, nondetect data were replaced with one half of the PQL. The selected analysis (i.e., parametric or nonparametric) and transformation (where applicable) for each background data set are shown in Attachment C.

The updated interwell prediction limits for boron and pH and previously established intrawell prediction limits for calcium, chloride, fluoride, sulfate, and TDS are summarized in Table 3. The

UPLs were calculated for a one-of-two retesting procedure; i.e., if at least one sample in a series of two is not above the UPL, or in the case of pH, is neither less than the lower prediction limit (LPL) nor greater than the UPL, then it can be concluded that an SSI has not occurred. In practice, where the initial result is not above the UPL, or in the case of pH, is neither less than the LPL nor greater than the UPL, a second sample will not be collected. The retesting procedures allowed for an acceptably high statistical power that could detect changes at compliance wells for constituents evaluated using intrawell prediction limits.

2.2.4 Evaluation of Potential Appendix III SSIs

The Appendix III results were analyzed to assess whether concentrations of Appendix III parameters at the compliance wells were above background concentrations. Data collected during the September 2025 assessment monitoring event from each compliance well were compared to calculated prediction limits to assess whether the results were above background limits. The results from this event and the prediction limits are summarized in Table 3. The following were detected above the UPLs or, in the case of pH, below the LPLs:

- The fluoride concentration was detected above the intrawell UPL of 0.981 milligrams per liter (mg/L) at AD-8 (1.02 mg/L).
- pH values were below the interwell UPL of 4.8 standard units (SU) at AD-9 (4.5 SU) and at AD-15 (4.4 SU).
- The TDS concentration was detected above the intrawell UPL of 243 mg/L at AD-15 (420 mg/L).

While the prediction limits were calculated for a one-of-two retesting procedure, SSIs were conservatively assumed if the September 2024 sample was above the UPL or, in the case of pH, below the LPL. Therefore, the unit will remain in assessment monitoring.

2.3 Conclusions

A semiannual assessment monitoring event was conducted in accordance with the TCEQ CCR Rule. The laboratory and field data were reviewed prior to statistical analysis, with no QA/QC issues identified that prevented data usage. A review of outliers identified one outlier for lead from April 2025 that was flagged and removed from the dataset. GWPSs were reestablished for the Appendix IV parameters. A confidence interval was constructed at each compliance well for each Appendix IV parameter; SSLs were concluded if the entire confidence interval was above the GWPS. No SSLs were identified. Appendix III results were compared to calculated prediction limits, with values above the UPL detected for fluoride and TDS and below the LPL for pH.

3. REFERENCES

Geosyntec. 2018. Statistical Analysis Summary – Primary Bottom Ash Pond, J. Robert Welsh Plant, Pittsburg, Texas. Geosyntec Consultants, Inc. January.

Geosyntec. 2021. Statistical Analysis Plan – J. Robert Welsh Plant. Geosyntec Consultants, Inc. December.

Geosyntec. 2024. Statistical Analysis Summary, 2024 2nd Semiannual Event – Primary Bottom Ash Pond, J. Robert Welsh Plant, Pittsburg, Texas. Geosyntec Consultants, Inc. December.

TCEQ. 2020. Draft Technical Guidance No. 32. Coal Combustion Residuals Groundwater Monitoring and Corrective Action. Texas Commission on Environmental Quality. May.

TABLES

Table 1. Groundwater Data Summary
Statistical Analysis Summary
Welsh Plant – Primary Bottom Ash Pond

Geosyntec Consultants, Inc.

Parameter	Unit	AD-1	AD-5		AD-8	AD-9	AD-15	AD-17
		Background	Background		Compliance	Compliance	Compliance	Background
		9/4/2025	9/2/2025	9/3/2025	9/3/2025	9/3/2025	9/2/2025	9/2/2025
Antimony	µg/L	0.04 J1	--	0.1 U1	0.02 J1	0.1 U1	0.03 J1	0.03 J1
Arsenic	µg/L	0.19	--	2.32	0.22	0.61	2.48	0.46
Barium	µg/L	72.5	--	65.3	26.2	48.7	72.7	10.6
Beryllium	µg/L	2.03	--	0.05	0.05 U1	1	0.16	0.05
Boron	mg/L	1	--	0.076	0.964	0.124	0.106	0.122
Cadmium	µg/L	0.045	--	0.02 U1	0.023	0.256	0.012 J1	0.005 J1
Calcium	mg/L	10.6	--	42.2	20.7	79.2	2.98	169
Chloride	mg/L	4.63	--	17.1	16.3	33.8	27.6	38.5
Chromium	µg/L	0.8	--	0.38	0.21 J1	0.56	0.33	0.47
Cobalt	µg/L	5.66	--	12.3	6.66	20.1	2.86	43.9
Combined Radium	pCi/L	3.64 L1, P2	--	1.33 L1, P2, J1	1.33 L1, P2, J1	2.55 L1, P2	2.23 L1, P2, J1	3.61 L1, P2
Fluoride	mg/L	0.65	--	0.21	1.02	0.17	0.06	0.13 J1
Lead	µg/L	0.31	--	0.08 J1	0.2 U1	0.09 J1	0.11 J1	0.07 J1
Lithium	mg/L	0.00885	--	0.155	0.0538	0.444	0.00317	0.277
Mercury	µg/L	0.006	--	0.005 U1	0.005	0.009	0.004 J1	0.005 U1
Molybdenum	µg/L	0.87	--	0.23 J1	0.5 U1	0.5 U1	0.5 U1	0.16 J1
Selenium	µg/L	10.3	--	0.05 J1	0.04 J1	0.72	0.47 J1	0.11 J1
Sulfate	mg/L	141	--	103	141	513	6.63	1030
Thallium	µg/L	0.1 J1	--	0.2 U1	0.13 J1	0.19 J1	0.06 J1	0.2 U1
Total Dissolved Solids	mg/L	280	--	290	120	310	420	1660
pH	SU	5.5	5.6	--	5.8	4.5	4.4	5.6

Notes:
--: not sampled
J1: estimated value. Parameter was detected in concentrations below the reporting limit
L1: the associated laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) recovery was outside acceptance limits
mg/L: milligrams per liter
P2: the precision on the laboratory control sample duplicate (LCSD) was above acceptance limits
pCi/L: picocuries per liter
SU: standard unit
U1: nondetect value. For statistical analysis, parameters that were not detected were replaced with the reporting limit
µg/L: micrograms per liter

Table 2. Appendix IV Groundwater Protection Standards
Statistical Analysis Summary
Welsh Plant – Primary Bottom Ash Pond

Geosyntec Consultants, Inc.

Constituent Name	MCL	Calculated UTL	GWPS
Antimony, Total (mg/L)	0.00600	0.00317	0.00600
Arsenic, Total (mg/L)	0.0100	0.00628	0.0100
Barium, Total (mg/L)	2.00	0.512	2.00
Beryllium, Total (mg/L)	0.00400	0.00220	0.00400
Cadmium, Total (mg/L)	0.00500	0.00400	0.00500
Chromium, Total (mg/L)	0.100	0.00500	0.100
Cobalt, Total (mg/L)	n/a	0.0748	0.0748
Combined Radium, Total (pCi/L)	5.00	4.71	5.00
Fluoride, Total (mg/L)	4.00	0.680	4.00
Lead, Total (mg/L)	n/a	0.00110	0.00110
Lithium, Total (mg/L)	n/a	0.394	0.394
Mercury, Total (mg/L)	0.00200	0.0000330	0.00200
Molybdenum, Total (mg/L)	n/a	0.00243	0.00243
Selenium, Total (mg/L)	0.0500	0.0113	0.0500
Thallium, Total (mg/L)	0.00200	0.00125	0.00200

Notes:

1. Calculated UTL (upper tolerance limit) represents site-specific background values.
2. Grey cells indicate the GWPS is based on the calculated UTL. Either the UTL is higher than the MCL or an MCL does not exist.

GWPS: groundwater protection standard

MCL: maximum contaminant level

mg/L: milligrams per liter

n/a: not applicable

pCi/L: picocuries per liter

Table 3. Appendix III Data Summary
Statistical Analysis Summary
Welsh Plant – Primary Bottom Ash Pond

Geosyntec Consultants, Inc.

Analyte	Unit	Description	AD-8	AD-9	AD-15
			9/3/2025	9/3/2025	9/2/2025
Boron	mg/L	Interwell Background Value (UPL)	1.00		
		Analytical Result	0.964	0.124	0.106
Calcium	mg/L	Intrawell Background Value (UPL)	27.3	258	4.42
		Analytical Result	20.7	79.2	2.98
Chloride	mg/L	Intrawell Background Value (UPL)	25.9	103	35.5
		Analytical Result	16.3	33.8	27.6
Fluoride	mg/L	Intrawell Background Value (UPL)	0.981	0.434	0.150
		Analytical Result	**1.02**	0.17	0.06
pH	SU	Interwell Background Value (UPL)	6.8		
		Interwell Background Value (LPL)	4.8		
		Analytical Result	5.8	**4.5**	**4.4**
Sulfate	mg/L	Intrawell Background Value (UPL)	198	1910	28.2
		Analytical Result	141	513	6.63
Total Dissolved Solids	mg/L	Intrawell Background Value (UPL)	467	2690	243
		Analytical Result	120	310	**420**

Notes:

1. Bold values exceed the background value.

2. Background values are shaded gray.

LPL: lower prediction limit

mg/L: milligrams per liter

SU: standard units

UPL: upper prediction limit

ATTACHMENT A
Certification by Qualified Professional Engineer

Certification by Qualified Professional Engineer

I certify that selected and above described statistical method is appropriate for evaluating the groundwater monitoring data for the Welsh Primary Bottom Ash Pond CCR management area and that the requirements of § 352.951(a) have been met.



David Anthony Miller

Printed Name of Licensed Professional Engineer

David Anthony Miller

Signature

112498	**Texas**	**12.29.2025**
License Number	Licensing State	Date

ATTACHMENT B
Data Quality Review Memoranda

Geosyntec consultants

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Memorandum

Date:	December 19, 2025
To:	David Miller (AEP)
Copies to:	Pryce Warren (AEP)
From:	Allison Kreinberg (Geosyntec)
Subject:	Data Quality Review – Welsh Power Plant September 2025 Sampling Event – Background Wells

This memorandum summarizes the findings of a data quality review for groundwater samples collected at the Welsh Power Plant, located in Pittsburg, Texas in September 2025. The groundwater samples were collected to comply with the Texas Commission on Environmental Quality's (TCEQ's) regulations regarding the disposal of coal combustion residuals (CCRs) in landfills and surface impoundments (Title 30 Chapter 352, "CCR Rule"). 40 CFR 257 Appendix III and IV constituents were analyzed.

The following sample data groups (SDGs) were associated with the groundwater samples collected from the background monitoring wells (AD-1, AD-5, and AD-17) during the September 2025 sampling event and are reviewed in this memorandum:

- Dolan Chemical Laboratory (Groveport, Ohio) Job ID # 252320
- Dolan Chemical Laboratory (Groveport, Ohio) Job ID # 252368

The data included in these SDGs were reviewed to assess if they met the objectives outlined in TCEQ Draft Technical Guideline No. 32[1] prior to submittal of this data to TCEQ.

The following data quality issues were identified:

- As reported in SDG 252368, boron, calcium, chromium**,** cobalt, and molybdenum were detected in the equipment blank sample "Equip. Blank- Background" collected on

[1] TCEQ. Topic: Coal Combustion Residuals (CCR) Groundwater Monitoring and Corrective Action: Technical Guidance No. 32. May 2020.

9/2/2025. The estimated detected boron concentration in the equipment blank (0.024 mg/L) was more than 10% of the detected values for boron in the groundwater samples from AD-1 and AD-5, which could result in high bias for these groundwater results. The detected chromium concentration in the equipment blank (0.33 µg/L) was more than 10% of the detected values for chromium in all groundwater samples, which could result in high bias for all groundwater chromium results. The estimated detected molybdenum concentration in the equipment blank (0.06 µg/L) was more than 10% of the detected values for molybdenum in the groundwater samples from AD-5 and AD-17, which could result in high bias for these groundwater results.

- As reported in SDG 252368, boron and chromium were detected in the field blank sample "Field Blank-Background" collected on 9/2/2025. The detected chromium concentration in the field blank (0.33 µg/L) was more than 10% of the detected values for chromium in all groundwater samples, which could result in high bias for all groundwater chromium results.

- As reported in SDG 252368, the RPD for lead concentrations from parent sample "AD-1" and duplicate sample "DUP-BACKGROUND" was 30%. The RPD for molybdenum concentrations from AD-1 and the duplicate was 131%. The RPD for thallium concentrations from AD-1 and the duplicate was 35%. The RPD for mercury concentrations from AD-1 and the duplicate was 40%. The AD-1 lead, molybdenum, thallium, and mercury results should be considered estimated; the thallium result at AD-1 was already estimated and flagged J1: analyte was detected between the method detection limit and the reporting limit.

- As reported in SDG 252368, the laboratory control sample duplicate (LCSD) recovery for radium-228 (63.6%) was below the acceptable limit of 75%. The associated samples were flagged L1: the associated laboratory control sample (LCS) or LCSD recovery was outside acceptance limits. The LCSD RPD for radium-228 (30.5) was above the acceptable limit of 25. The associated samples were flagged P2: the precision on the LCSD was above acceptance limits. The AD-1, AD-5, and AD-17 radium-228 results should be considered estimated.

Based on these findings, the majority of the data reported in these SDGs are considered accurate and complete. Although the QC failures mentioned above will result in some limitations of data use since the affected results are considered estimated or have elevated reporting limits, the data are considered usable for supporting project objectives.

Geosyntec consultants

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Memorandum

Date:	December 19, 2025
To:	David Miller (AEP)
Copies to:	Pryce Warren (AEP)
From:	Allison Kreinberg (Geosyntec)
Subject:	Data Quality Review – Welsh Power Plant September 2025 Sampling Event – PBAP Compliance Wells

This memorandum summarizes the findings of a data quality review for groundwater samples collected at the Welsh Power Plant, located in Pittsburg, Texas in September 2025. The groundwater samples were collected to comply with the Texas Commission on Environmental Quality's (TCEQ's) regulations regarding the disposal of coal combustion residuals (CCRs) in landfills and surface impoundments (Title 30 Chapter 352, "CCR Rule"). 40 CFR 257 Appendix III and IV constituents were analyzed.

The following sample data groups (SDGs) were associated with the groundwater samples collected from the primary bottom ash pond (PBAP) compliance wells (AD-(AD-8, AD-9, and AD-15) during the September 2025 sampling event and are reviewed in this memorandum:

- Dolan Chemical Laboratory (Groveport, Ohio) Job ID # 252324
- Dolan Chemical Laboratory (Groveport, Ohio) Job ID # 252347

The data included in these SDGs were reviewed to assess if they met the objectives outlined in TCEQ Draft Technical Guideline No. 32[1] prior to submittal of this data to TCEQ.

The following data quality issues were identified:

- As reported in SDG 252347, chromium and mercury were detected in the equipment blank sample "Equip Blank- PBAP" collected on 9/2/2025. The detected chromium

[1] TCEQ. Topic: Coal Combustion Residuals (CCR) Groundwater Monitoring and Corrective Action: Technical Guidance No. 32. May 2020.

concentration in the equipment blank (0.31 µg/L) was more than 10% of the detected values for chromium in all groundwater samples, which could result in high bias for all groundwater chromium results. The estimated detected mercury concentration in the equipment blank (2 ng/L) was more than 10% of the detected values for mercury in all groundwater samples, which could result in high bias for all groundwater mercury results.

- As reported in SDG 252347, chromium, cobalt, and selenium were detected in the field blank sample "Field Blank-PBAP" collected on 9/2/2025. The detected chromium concentration in the field blank (0.31 µg/L) was more than 10% of the detected values for chromium in all groundwater samples, which could result in high bias for all groundwater chromium results. The estimated detected selenium concentration in the equipment blank (0.05 µg/L) was more than 10% of the detected values for selenium in the groundwater samples from AD-8 and AD-15, which could result in high bias for these groundwater results.

- As reported in SDG 252324, the relative perfect difference (RPD) for sulfate concentrations from parent sample "AD-15" and duplicate sample "DUPLICATE- PBAP" was 26%. The AD-15 sulfate result should be considered estimated.

- As reported in SDG 252347, the antimony result for parent sample "AD-15" was an estimated detection (0.03 mg/L), and the antimony result for duplicate sample "DUPLICATE- PBAP" was nondetect (<0.02 mg/L); therefore, the RPD could not be calculated. The antimony result for AD-15 was considered estimated and flagged J1: analyte was detected between the method detection limit and the reporting limit.

- As reported in SDG 252347, the RPD for mercury concentrations from parent sample "AD-15" and duplicate sample "DUPLICATE- PBAP" was 29%. The AD-15 mercury result should be considered estimated.

- As reported in SDG 252347, the laboratory control sample duplicate (LCSD) recovery for radium-228 (63.6%) was below the acceptable limit of 75%. The associated samples were flagged L1: the associated laboratory control sample (LCS) or LCSD recovery was outside acceptance limits. The LCSD RPD for radium-228 (30.5) was above the acceptable limit of 25. The associated samples were flagged P2: the precision on the LCSD was above acceptance limits. The AD-8, AD-9, and AD-15 radium-228 results should be considered estimated.

Based on these findings, the majority of the data reported in these SDGs are considered accurate and complete. Although the QC failures mentioned above will result in some limitations of data

use since the affected results are considered estimated or have elevated reporting limits, the data are considered usable for supporting project objectives.

ATTACHMENT C
Statistical Analysis Output

GROUNDWATER STATS CONSULTING

December 15, 2025

Geosyntec Consultants
Attn: Ms. Allison Kreinberg
500 W. Wilson Bridge Road, Suite 250
Worthington, OH 43085

Re: Welsh PBAP - Assessment Monitoring Event & Background Update 2025

Dear Ms. Kreinberg,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the statistical analysis and background update of 2025 groundwater data for American Electric Power Inc.'s Welsh PBAP. The analysis complies with the Texas Commission of Environmental Quality Rule 30 TAC 352 as well as with the United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

Sampling began at the site for the Coal Combustion Residuals (CCR) program in 2016. The monitoring well network, as provided by Geosyntec Consultants, consists of the following:

- **Upgradient wells:** AD-1, AD-5, and AD-17
- **Downgradient wells:** AD-8, AD-9, and AD-15

Data were sent electronically, and the statistical analysis was reviewed by Dr. Jim Loftis, Civil & Environmental Engineering professor emeritus at Colorado State University and Senior Advisor to Groundwater Stats Consulting. The analysis was conducted according to the Statistical Analysis Plan prepared by GSC and approved by Dr. Cameron, PhD Statistician with MacStat Consulting, primary author of the USEPA Unified Guidance, and Senior Advisor to GSC.

The CCR program consists of the following constituents:

- **Appendix III** (Detection Monitoring) **-** boron, calcium, chloride, fluoride, pH, sulfate, and TDS

- **Appendix IV** (Assessment Monitoring) **–** antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lead, lithium, mercury, molybdenum, selenium, and thallium

Time series plots for Appendix III and IV parameters are provided for all wells and constituents, and are used to evaluate concentrations over the entire record (Figure A). Additionally, box plots are included for all constituents at upgradient and downgradient wells (Figure B). The time series plots are used to initially screen for suspected outliers and trends, while the box plots provide visual representation of variation within individual wells and between all wells. Values flagged as outliers may be seen in the Outlier Summary following this letter (Figure C) and are plotted in a lighter font and disconnected symbol on the time series graphs.

Due to varying detection limits in background data sets, a substitution of the most recent reporting limit is used for all non-detects. Note that for calculation of intrawell prediction limits, substitution of the most recent reporting limit is performed separately for each well/parameter pair. In some cases, the reporting limit provided by the laboratory contains varying limits for a given parameter; therefore, the substitution may differ from well to well. Reporting limit changes may vary based on laboratory capabilities. For fluoride, lead, and selenium, historical reporting limits were updated to the most recent limits of 0.06 mg/L, 0.0002 mg/L, and 0.0005 mg/L, respectively, and applied across all non-detects for all wells. The computed statistical limits, both background and compliance limits, were not adversely affected by these substitutions.

Summary of Statistical Methods

- Intrawell prediction limits, combined with a 1-of-2 resample plan for calcium, chloride, fluoride, sulfate, and TDS
- Interwell prediction limits combined with a 1-of-2 resample plan for boron and pH
- Confidence intervals compared to Ground Water Protection Standards for all Appendix IV constituents

In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of an additional sample to determine whether the initial exceedance is confirmed. When the resample confirms the initial exceedance, a statistically significant increase (SSI) is identified and further research would be required to identify the cause of the exceedance (i.e., impact from the site, natural variation, or an off-site source). If the resample falls within the statistical limit, the initial exceedance is considered to be a false positive result and, therefore, no further action is necessary.

Parametric prediction limits, tolerance limits, and confidence intervals are utilized when the screened historical data follow a normal or transformed-normal distribution. Parametric prediction limits are based on a significance level of 0.05 for each semi-annual event. When data cannot be normalized or the majority of data are non-detects, a nonparametric test is utilized. The significance level of a nonparametric tests depends on the background sample size. The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. After testing for normality and performing any adjustments as discussed below (US EPA, 2009), data are analyzed using either parametric or non-parametric prediction limits as appropriate. Non-detects are handled as follows:

- No statistical analyses are required on wells and analytes containing 100% non-detects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% non-detects, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the most recent practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% non-detects, the Kaplan-Meier non-detect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits, tolerance limits, and confidence intervals are used on data containing greater than 50% non-detects.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits will be necessary to accommodate these types of changes. In the interwell case, newer data may be included in background during each sample event after screening the upgradient well data for any new outliers. Data will also be periodically evaluated for statistically significant trends, and earlier data may be deselected prior to construction of statistical limits so that limits represent present-day conditions.

In the intrawell case, data for all wells and constituents are re-evaluated when a minimum of 4 new data points are available to determine whether earlier concentrations are representative of present-day groundwater quality. In some cases, the earlier portion of data are deselected prior to construction of limits in order to provide sensitive limits that will rapidly detect changes in groundwater quality. Even though the data are excluded from the calculation, the values will continue to be reported and shown in tables and graphs.

For Appendix III detection monitoring parameters, compliance is determined by comparing the most recent observation to a background prediction limit. The corresponding trend tests for screening and evaluating prediction limit exceedances of Appendix III parameters are performed at the 99% confidence level to provide a high level of confidence against false positives. For Appendix IV assessment monitoring parameters, however, compliance is assessed by comparing a full (or truncated) period of record to a GWPS using a confidence interval. The corresponding trend tests for screening and evaluating confidence interval exceedances of Appendix IV constituents are performed at the 95% confidence level to provide greater capability of identifying potential trends than the 99% confidence level without drastically decreasing the false negative rate.

Selection of Statistical Methods for Appendix III - Conducted in December 2017

Appendix III – Determination of Spatial Variation

The Analysis of Variance (ANOVA) was used to statistically evaluate differences in average concentrations among upgradient wells, which assists in identifying the most appropriate statistical approach. Interwell tests, which compare downgradient well data to statistical limits constructed from pooled upgradient well data, are appropriate when average concentrations are similar across upgradient wells. Intrawell tests, which compare compliance data from a single well to screened historical data within the same well, are appropriate when upgradient wells exhibit spatial variation; when statistical limits constructed from upgradient wells would not be capable of detecting potential changes in groundwater quality downgradient of the facility; and when downgradient water quality is unimpacted compared to upgradient water quality for the same parameter.

As a result of the screening, intrawell prediction limits were determined to be most appropriate for calcium, chloride, fluoride, sulfate, and TDS while interwell prediction limits were appropriate for boron and pH. A summary of those findings was included with the report.

Appendix III Background Update Summary – Conducted in November 2025

Outlier Analysis

Prior to updating interwell prediction limits for the Fall 2025 analysis, data were evaluated using Tukey's outlier test and visual screening on pooled upgradient well data for boron and pH. Results of the outlier tests follow this report (Figure C). Tukey's outlier test on pooled upgradient well data did not identify any outliers for boron or pH among upgradient wells; therefore, no measurements were flagged as outliers.

For parameters which use intrawell prediction limits (calcium, chloride, fluoride, sulfate, and TDS), values were not re-evaluated for new outliers as these records had insufficient samples for updating background during this evaluation period.

Intrawell – Prediction Limits

Intrawell prediction limits, combined with a 1-of-2 resample plan, were constructed using historical data through April 2024 for calcium, chloride, fluoride, sulfate, and TDS. A summary of the limits follows this letter (Figure D). No comparisons of the September 2025 observations were performed in this analysis.

Interwell – Trend Test Evaluation

For parameters which are tested using interwell prediction limits (boron and pH), the Sen's Slope/Mann-Kendall trend test was used to evaluate data in upgradient wells and determine whether concentrations are statistically increasing, decreasing or stable at the 99% confidence level (Figure E). Statistically significant trends were identified for the following well/constituent pairs:

Increasing
- Boron: AD-1 (upgradient)

Decreasing
- pH: AD-17 (upgradient)

While identifying these upgradient trends is useful for understanding and characterization of upgradient background groundwater quality, truncation of the records to remove the trend may be appropriate when the trend would result in statistical limits that are not representative of upgradient groundwater quality and/or not able to detect downgradient changes that result from the facility. Deselecting data at upgradient wells is done with caution as similar observations may be observed at one or more downgradient wells depending on transport times.

Although boron in well AD-1 has a statistically significant increasing trend, the resulting limits are still representative of pooled upgradient well data. Additionally, no adjustment to the data set was required for the statistically significant decreasing trend identified for pH at upgradient well AD-17, as all observations within this individual well fall within the range of the other pooled upgradient well concentrations. Truncating the earlier measurements from these records to reduce the influence of the trend would not impact resulting interwell prediction limits. Therefore, no adjustments were required for these

well/constituent pairs at this time, and all data from upgradient wells were used to construct interwell prediction limits for boron and pH.

Interwell – Prediction Limits

Interwell prediction limits, combined with a 1-of-2 resample plan, were updated using all available data from upgradient wells through September 2025 for boron and pH (Figure F). Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. A summary table of the updated limits may be found following this letter in the Prediction Limit Summary Tables. No comparison of the September 2025 compliance observations to prediction limits was performed in this analysis.

Evaluation of Appendix IV Parameters – September 2025

The overall approach for assessing compliance is to compute a GWPS for each Appendix IV parameter, using the higher of a background tolerance limit or a regulatory limit. For each downgradient well and parameter, a confidence interval for the mean or median is compared to the GWPS.

Outlier Analysis

Prior to evaluating Appendix IV parameters, upgradient well data are screened through both visual screening and Tukey's outlier test for potential outliers and extreme trending patterns that would lead to artificially elevated statistical limits. As mentioned above, for fluoride, lead, and selenium, historical reporting limits were substituted with the most recent reporting limits of 0.06 mg/L, 0.0002 mg/L, and 0.0005 mg/L, respectively, and applied across all non-detects for all wells.

For the current analysis, Tukey's outlier test on pooled upgradient well data through September 2025 identified outliers for antimony, cadmium, chromium, and lead. The highest value for lead in upgradient well AD-1 was flagged as an outlier during this update since the measurement was not consistent with remaining measurements within the respective well, or among pooled upgradient concentrations (Figure C). Previously flagged outliers were confirmed for Appendix IV parameters. All other observations identified by Tukey's test were either similar to concentrations among neighboring upgradient wells or were lower than the respective Maximum Contaminant Level (MCL); therefore, those values were not flagged as outliers.

Additionally, downgradient well data through September 2025 were screened through visual screening using time series graphs. Since the downgradient well data are used to construct confidence intervals, an approach is taken in that values that are marginally high relative to the rest of the data are retained unless there is particular justification for excluding them, such as the spurious observations at AD-15 during the September 2016 event for several constituents. No additional outliers among downgradient wells for Appendix IV parameters were flagged during this analysis. All flagged values may be seen on the Outlier Summary following this letter (Figure C).

Trend Analysis – Upgradient Wells

Appendix IV data were also screened at upgradient wells using the Sen's Slope/Mann-Kendall trend test to formally evaluate whether statistically significant trends are present at the 95% confidence level (Figure G). As discussed above, when extreme trending patterns are present among upgradient wells, truncation of the records may be required for construction of interwell tolerance limits to represent current groundwater quality conditions. The following statistically significant trends were identified among upgradient wells:

Increasing

- Beryllium: AD-1
- Cobalt: AD-1
- Fluoride: AD-1
- Selenium: AD-1

Decreasing

- Antimony: AD-1
- Arsenic: AD-1 and AD-17
- Barium: AD-17
- Beryllium: AD-5
- Cadmium: AD-5 and AD-17
- Cobalt: AD-17
- Lithium: AD-17
- Mercury: AD-1 and AD-17
- Selenium: AD-5
- Thallium: AD-1

Several statistically significant trends were identified, in some cases, the significant trends did not adversely affect GWPS as all concentrations were below established MCLs or overall concentrations for an individual well were well below remaining pooled upgradient well data from other upgradient wells. Other statistically significant trends were a

byproduct of several non-detects early in the record followed by years of trace values and not based on values detected above the reporting limit. In the cases of cobalt and lithium at well AD-17, while decreasing trends were identified, more recent concentrations are not drastically different than those found earlier. Therefore, no adjustments were required for these well/constituent pairs at this time, and all data from upgradient wells were used to construct interwell tolerance limits. All data will be re-evaluated during the next background update.

Interwell Upper Tolerance Limits

Upper tolerance limits were used to calculate background limits from pooled upgradient well data through September 2025 for Appendix IV parameters (Figure H). These limits are updated on an annual basis and will be updated again during the Fall 2026 sample event.

Parametric tolerance limits are calculated, with a target of 95% confidence and 95% coverage, when data follow a normal or transformed-normal distribution. When data contained greater than 50% non-detects or did not follow a normal or transformed-normal distribution, non-parametric tolerance limits were constructed using the highest background measurement. The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples.

Groundwater Protection Standards

These background limits were compared to the MCLs as shown in the GWPS table following this letter to determine the highest limit for use as the GWPS in the confidence interval comparisons (Figure I).

Confidence Intervals

Confidence intervals were then constructed using data through September 2025 on downgradient wells for each of the Appendix IV parameters and compared to the GWPS, (i.e., the highest limit of the MCL or background limit as discussed above). Confidence intervals were constructed as either parametric or nonparametric confidence intervals depending on the data distribution and percentage of non-detects. When data followed a normal or transformed-normal distribution, parametric confidence intervals were used for Appendix IV parameters. Nonparametric confidence intervals were constructed when data did not follow a normal or transformed-normal distribution or when there were greater than 50% non-detects. The lower confidence limit, which is constructed with 99% confidence for parametric confidence intervals, is compared to the GWPS prepared as

described above. The confidence level associated with nonparametric confidence intervals is dependent upon the number samples available.

Only when the entire confidence interval is above a GWPS is the well/constituent pair considered to exceed its respective standard. Complete graphical results of the confidence intervals follow this letter (Figure J). No statistical exceedances were identified.

Trend Test Evaluation – Appendix IV

When confidence interval exceedances are identified in downgradient wells, data are further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable at the 95% confidence level. Upgradient wells are included in the trend analyses for all parameters found to exceed their confidence interval in downgradient wells. When similar patterns exist upgradient of the site, it is an indication of variability in groundwater which may be unrelated to practices at the site. Since no confidence interval exceedances were identified, trend tests were not required.

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for the Welsh PBAP. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,

Abdul Diane
Groundwater Analyst

Andrew T. Collins
Project Manager

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Date Ranges

Date: 11/17/2025 10:13 AM

Welsh PBAP Client: Geosyntec Data: Welsh PBAP

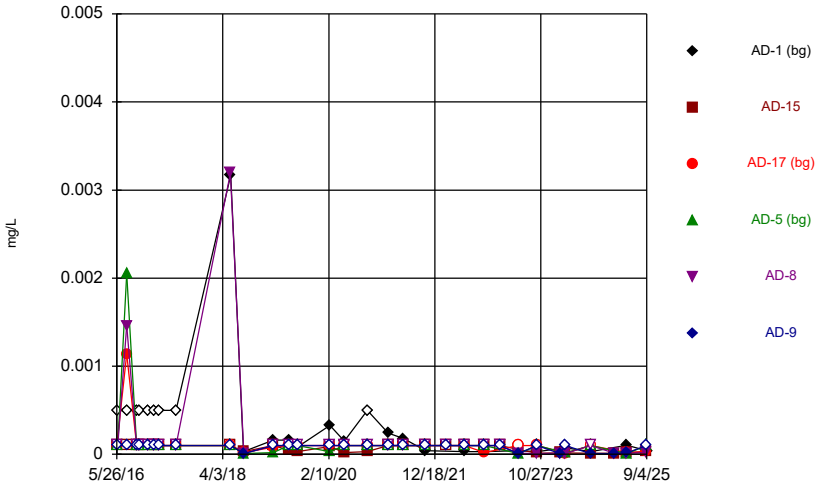
Chloride, total (mg/L)
AD-8 background:1/20/2017-4/1/2024
Fluoride, total (mg/L)
AD-17 background:1/20/2017-4/1/2024

FIGURE A

Time Series

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Hollow symbols indicate censored values.

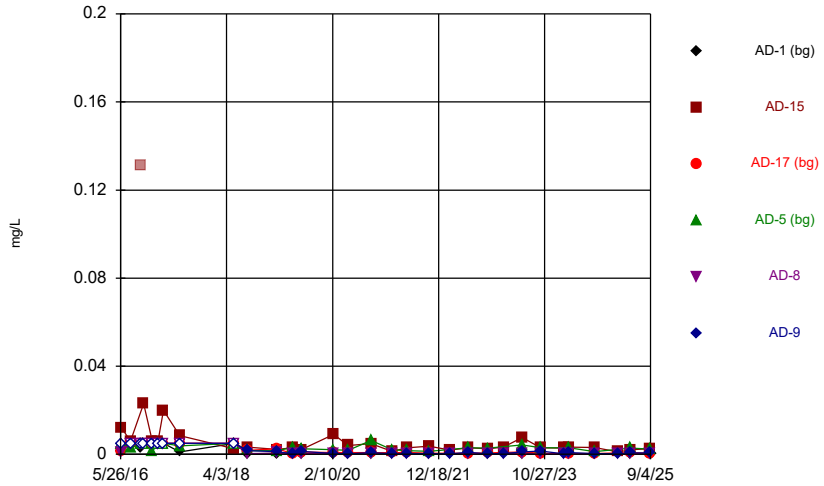
Time Series



Constituent: Antimony, total Analysis Run 11/18/2025 3:54 PM
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

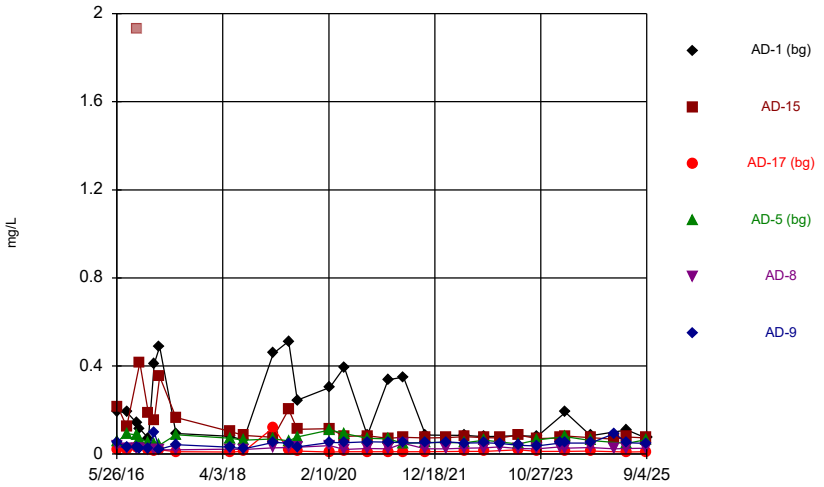
Time Series



Constituent: Arsenic, total Analysis Run 11/18/2025 3:54 PM
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG

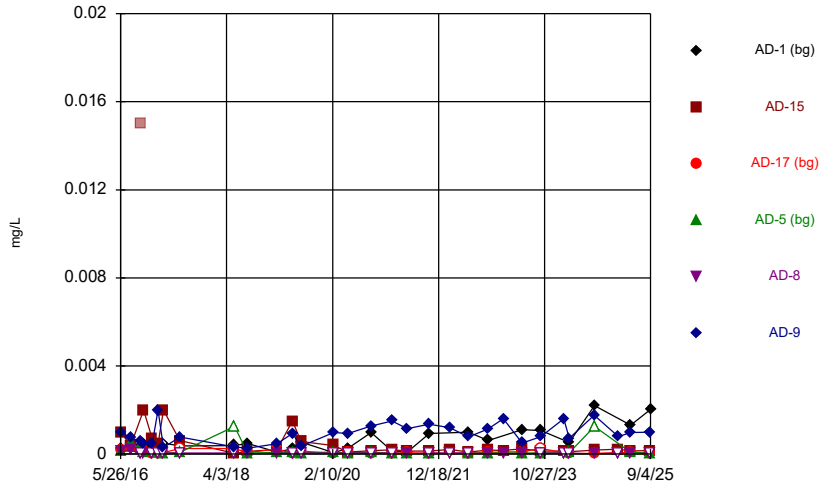
Time Series



Constituent: Barium, total Analysis Run 11/18/2025 3:54 PM
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

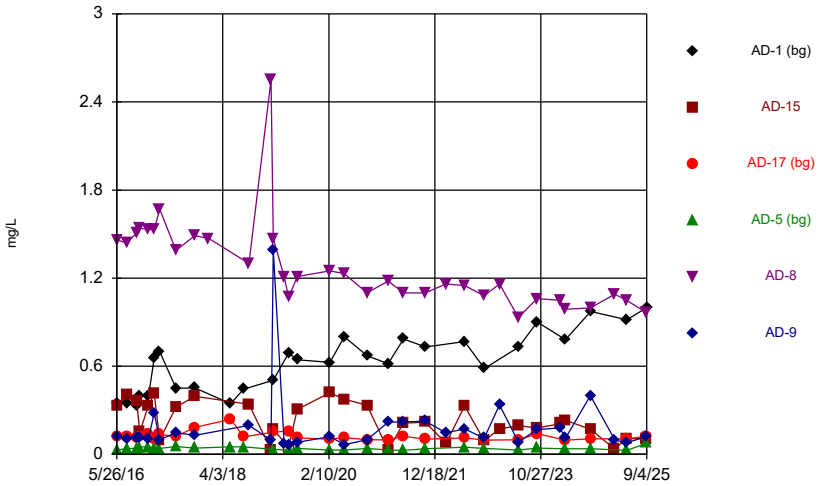
Time Series



Constituent: Beryllium, total Analysis Run 11/18/2025 3:54 PM
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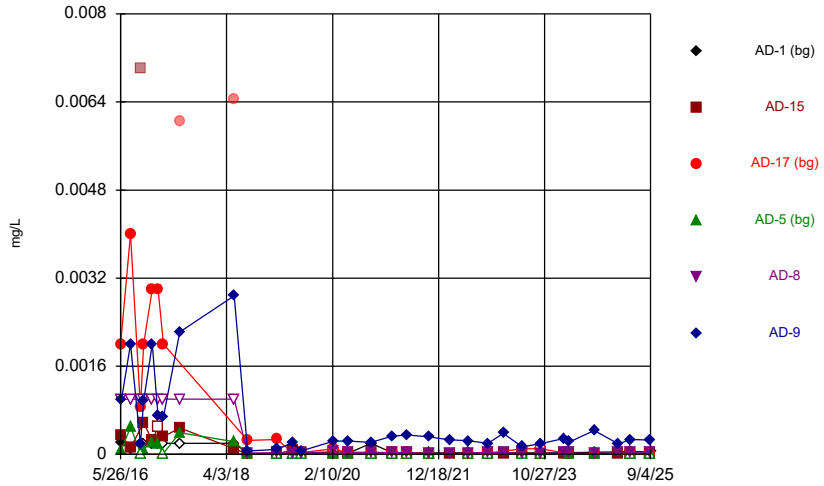
Time Series



Constituent: Boron, total Analysis Run 11/18/2025 3:54 PM
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

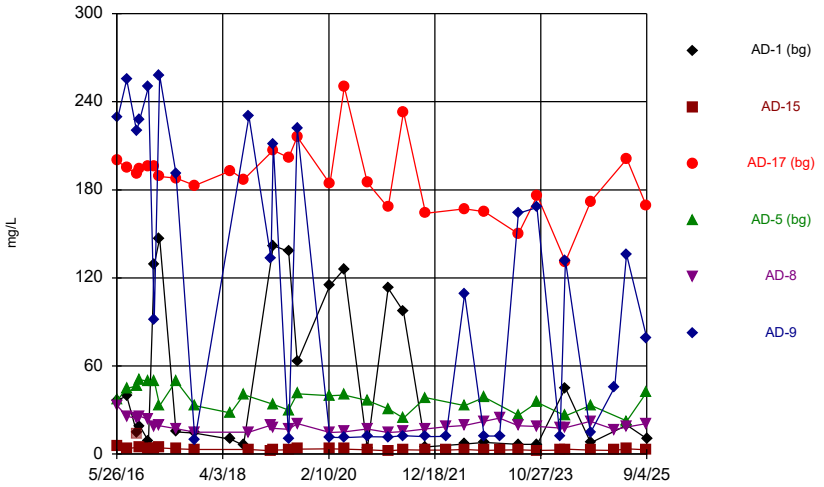
Time Series



Constituent: Cadmium, total Analysis Run 11/18/2025 3:54 PM
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG

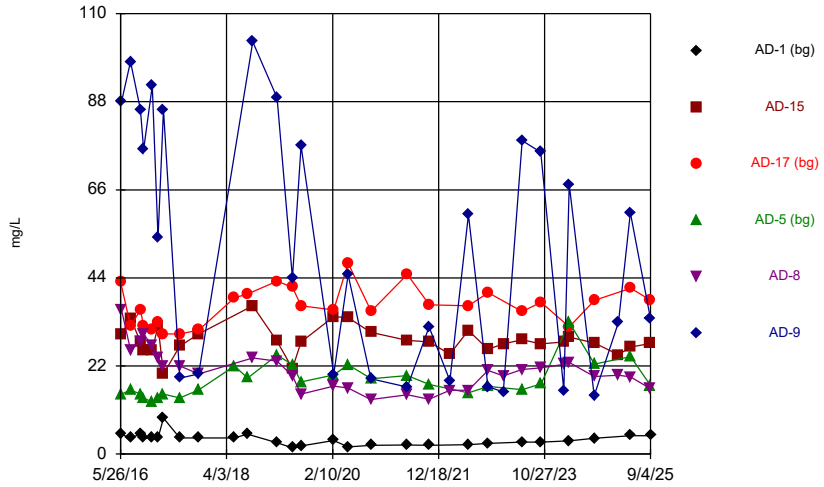
Time Series



Constituent: Calcium, total Analysis Run 11/18/2025 3:54 PM
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Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG

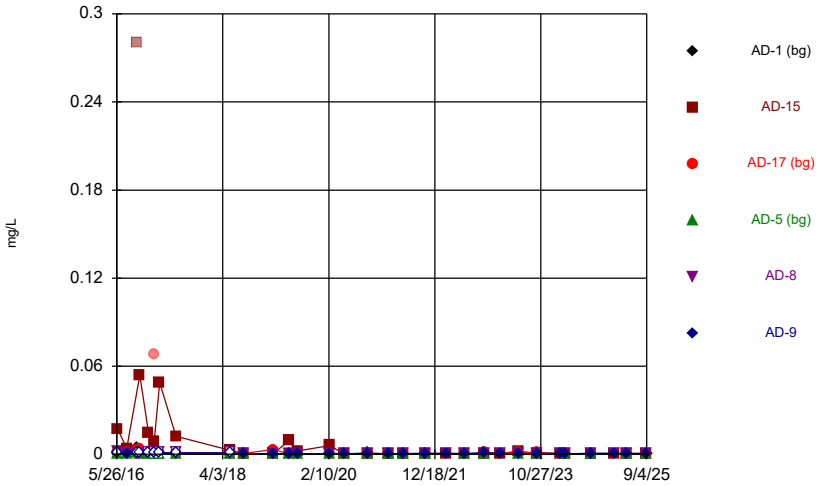
Time Series



Constituent: Chloride, total Analysis Run 11/18/2025 3:54 PM
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

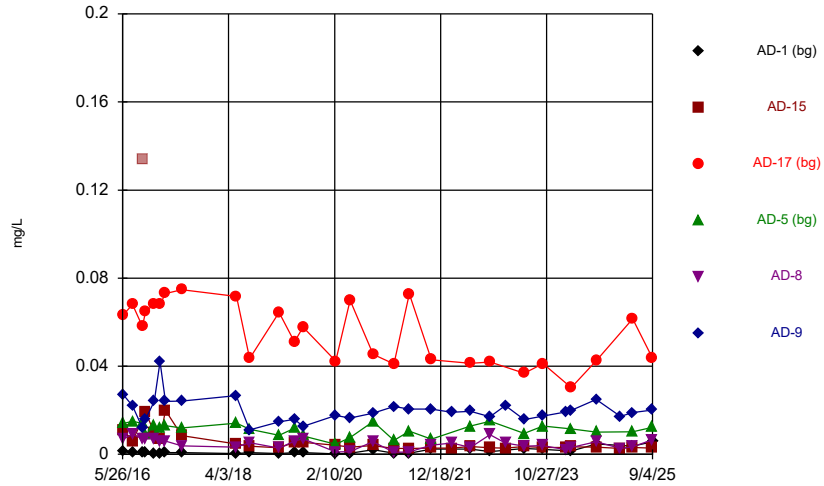
Time Series



Constituent: Chromium, total Analysis Run 11/18/2025 3:54 PM
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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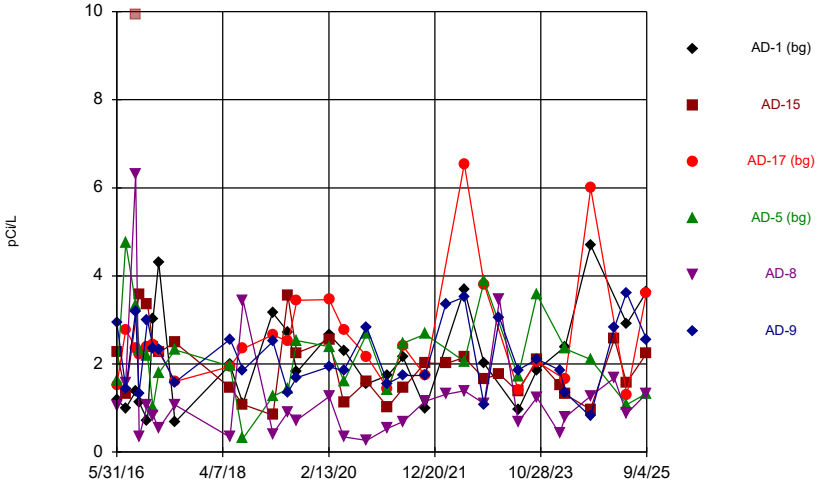
Time Series



Constituent: Cobalt, total Analysis Run 11/18/2025 3:54 PM
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG

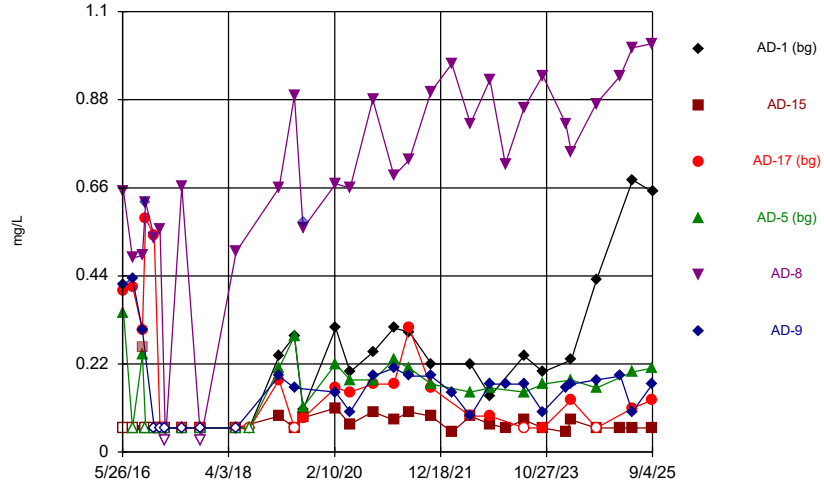
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 11/18/2025 3:54 PM
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Hollow symbols indicate censored values.

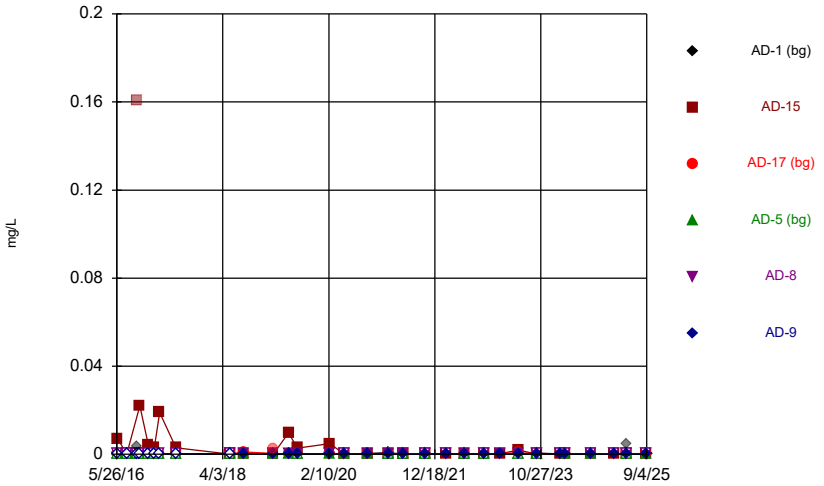
Time Series



Constituent: Fluoride, total Analysis Run 11/18/2025 3:54 PM
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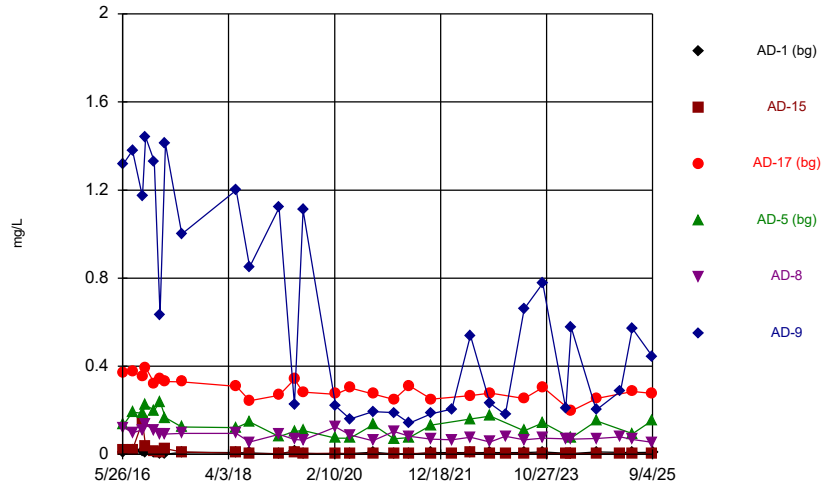
Time Series



Constituent: Lead, total Analysis Run 11/18/2025 3:54 PM
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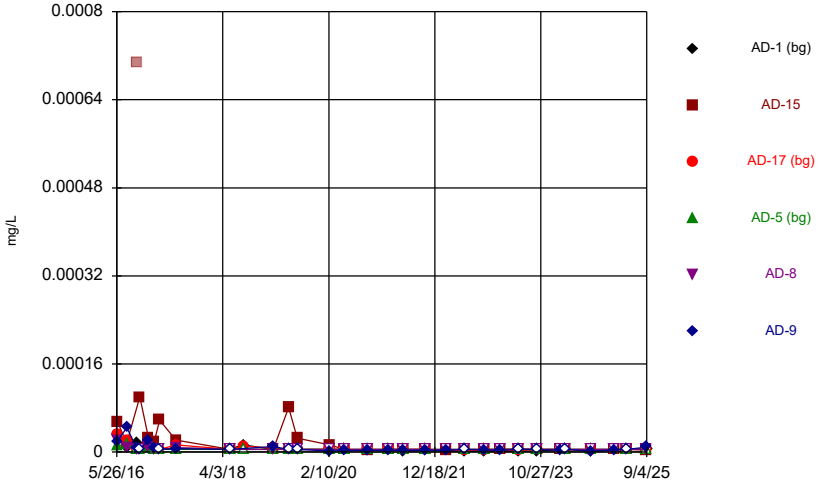
Time Series



Constituent: Lithium, total Analysis Run 11/18/2025 3:54 PM
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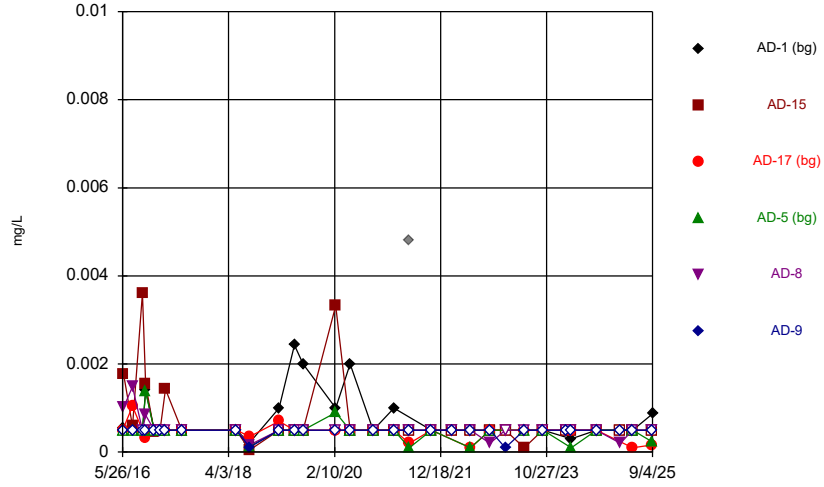
Time Series



Constituent: Mercury, total Analysis Run 11/18/2025 3:54 PM
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

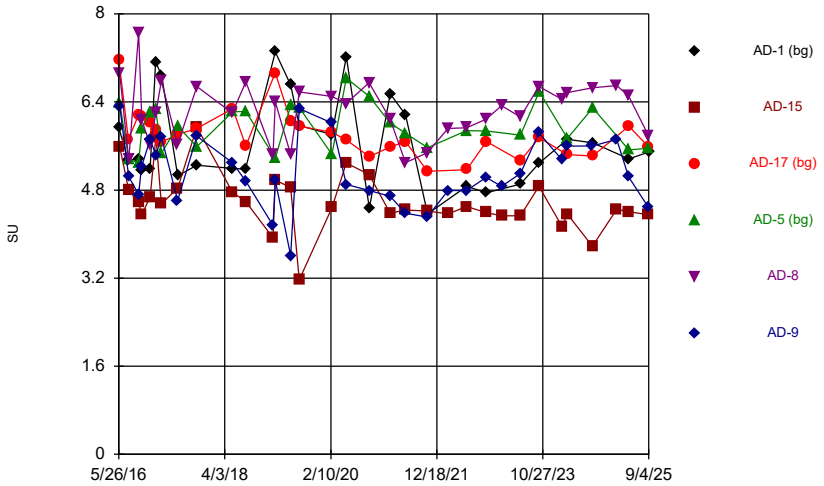
Time Series



Constituent: Molybdenum, total Analysis Run 11/18/2025 3:54 PM
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG

Time Series



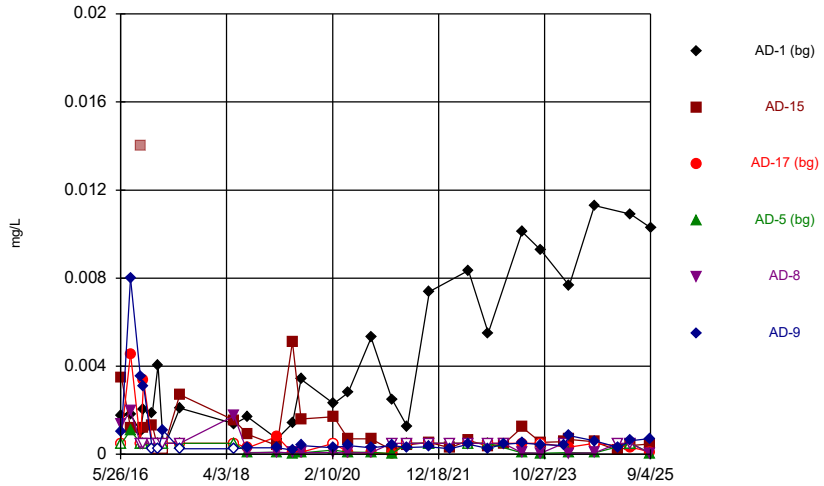
Constituent: pH, field Analysis Run 11/18/2025 3:54 PM

Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Time Series

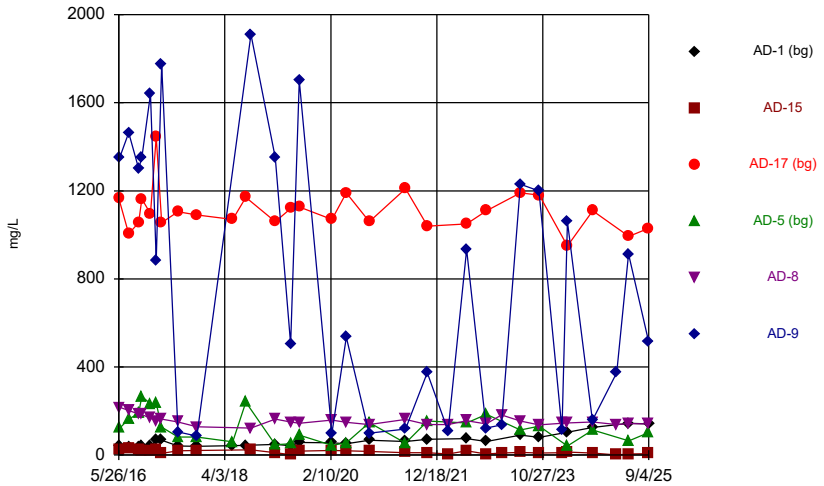


Constituent: Selenium, total Analysis Run 11/18/2025 3:54 PM

Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG

Time Series



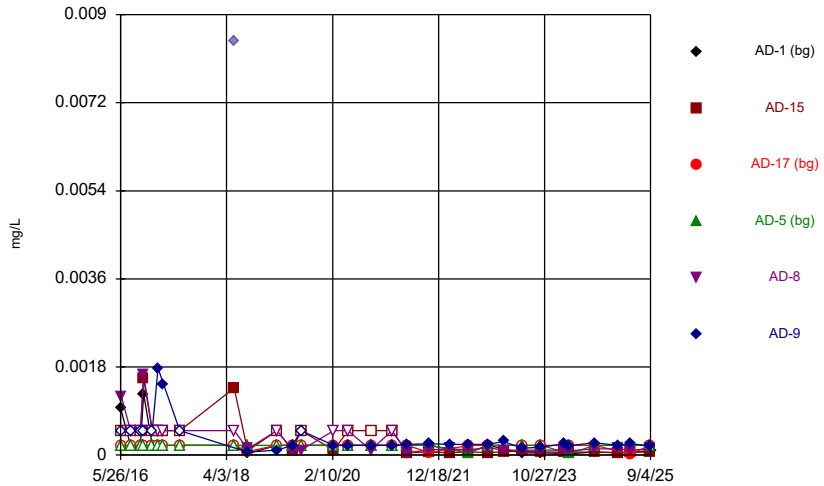
Constituent: Sulfate, total Analysis Run 11/18/2025 3:54 PM

Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Time Series

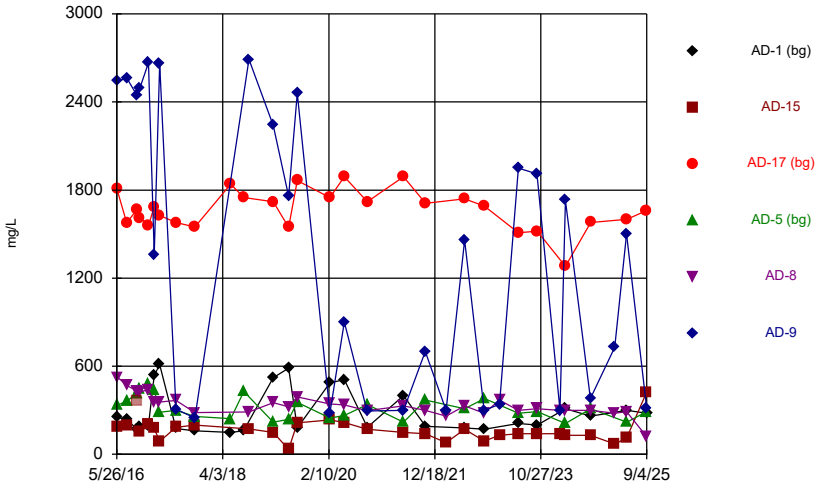


Constituent: Thallium, total Analysis Run 11/18/2025 3:54 PM

Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG

Time Series



Constituent: Total Dissolved Solids Analysis Run 11/18/2025 3:54 PM

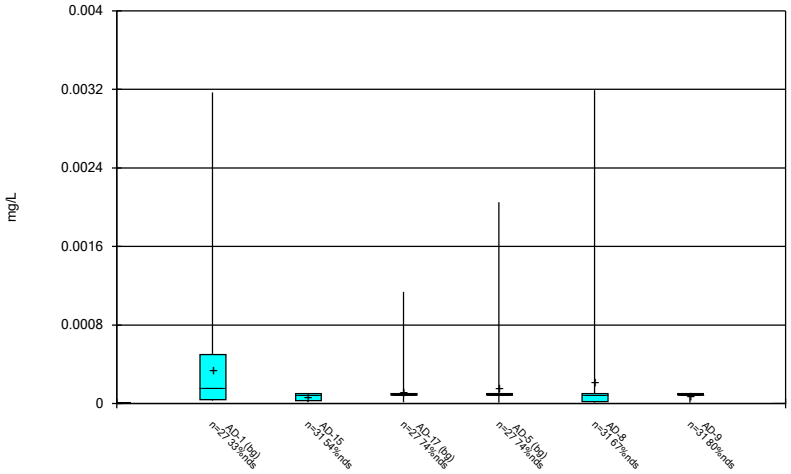
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

FIGURE B

Box Plots

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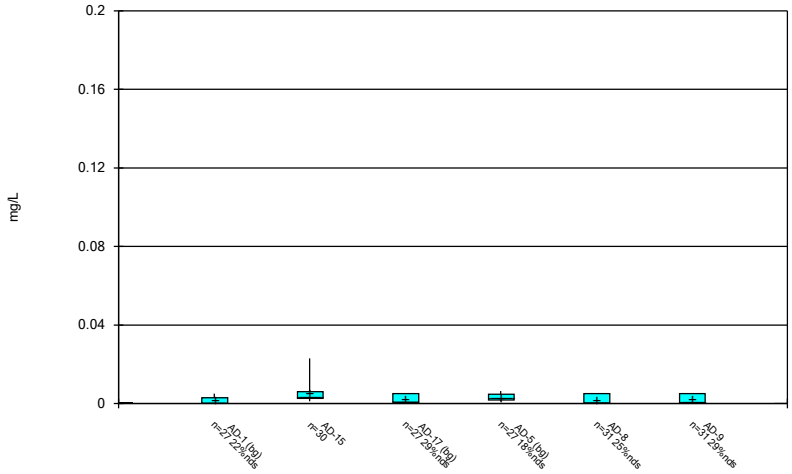
Box & Whiskers Plot



Constituent: Antimony, total Analysis Run 11/18/2025 3:56 PM
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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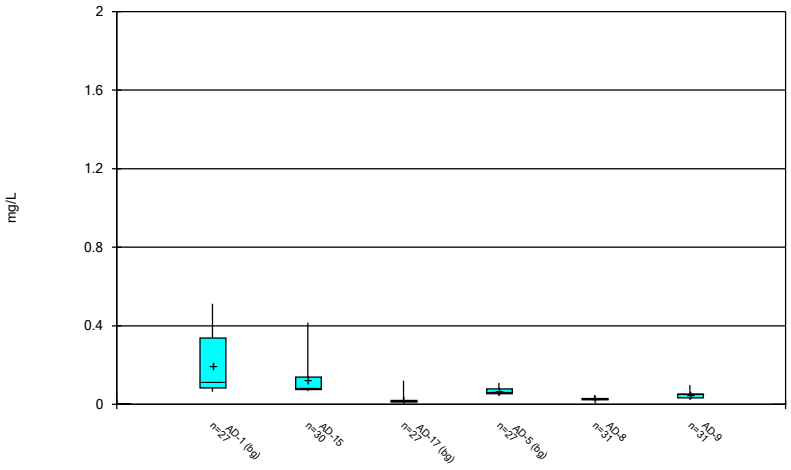
Box & Whiskers Plot



Constituent: Arsenic, total Analysis Run 11/18/2025 3:56 PM
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG

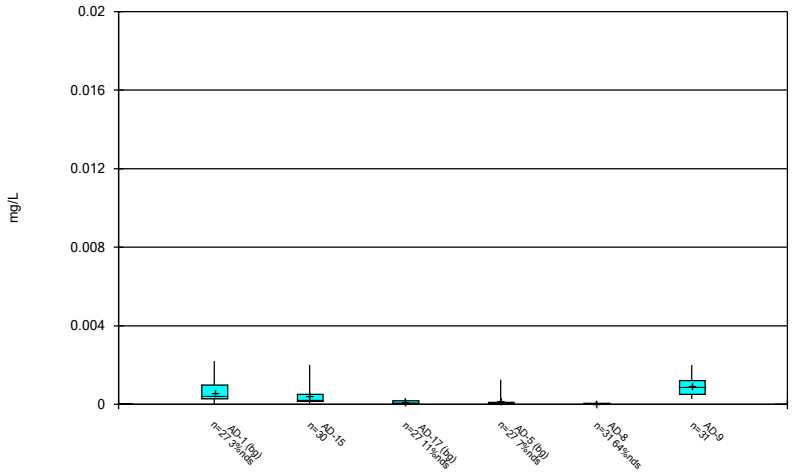
Box & Whiskers Plot



Constituent: Barium, total Analysis Run 11/18/2025 3:56 PM
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Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG

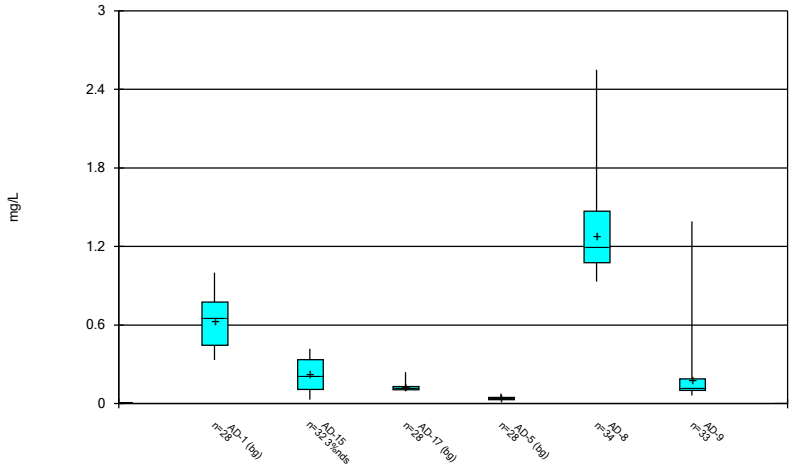
Box & Whiskers Plot



Constituent: Beryllium, total Analysis Run 11/18/2025 3:56 PM
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Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG

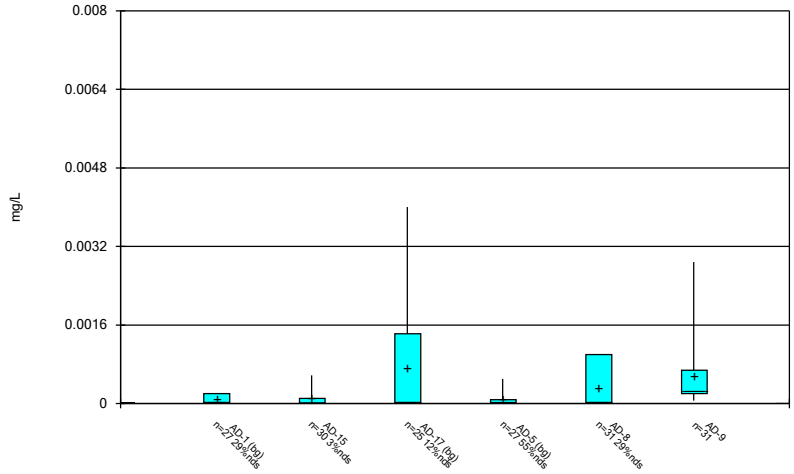
Box & Whiskers Plot



Constituent: Boron, total Analysis Run 11/18/2025 3:56 PM
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG

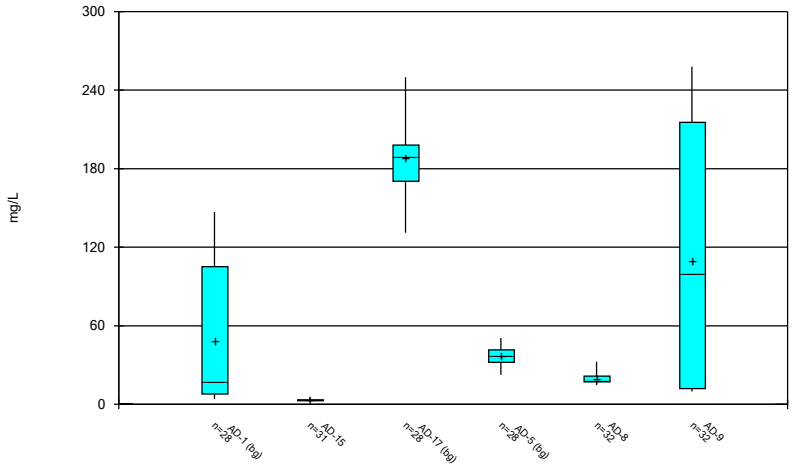
Box & Whiskers Plot



Constituent: Cadmium, total Analysis Run 11/18/2025 3:56 PM
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG

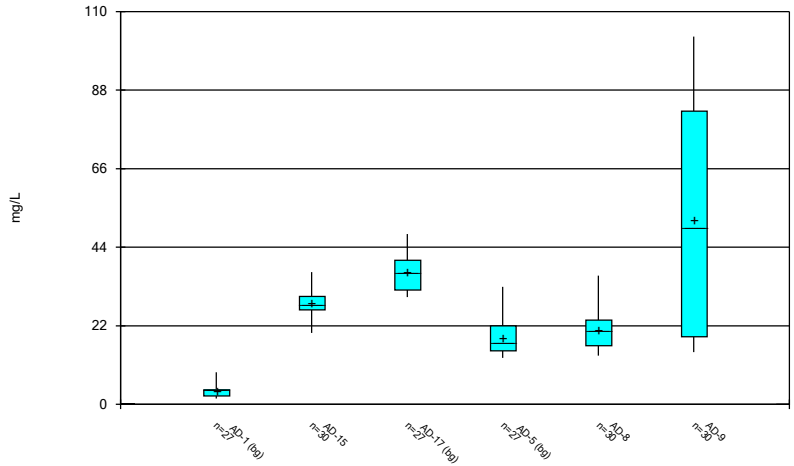
Box & Whiskers Plot



Constituent: Calcium, total Analysis Run 11/18/2025 3:56 PM
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG

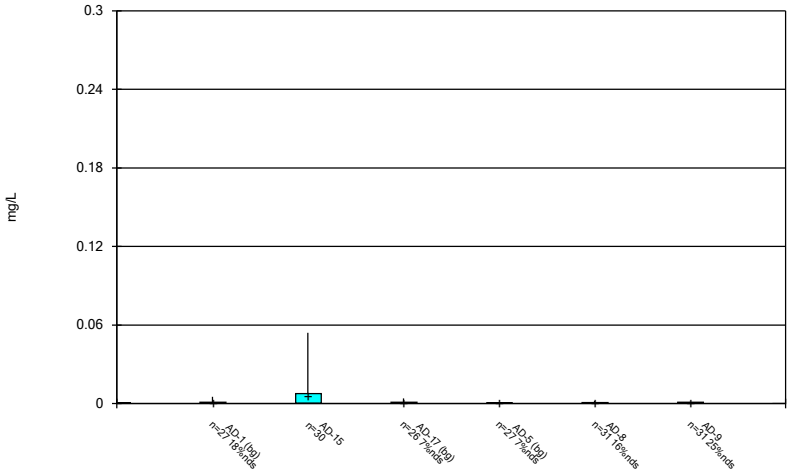
Box & Whiskers Plot



Constituent: Chloride, total Analysis Run 11/18/2025 3:56 PM
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG

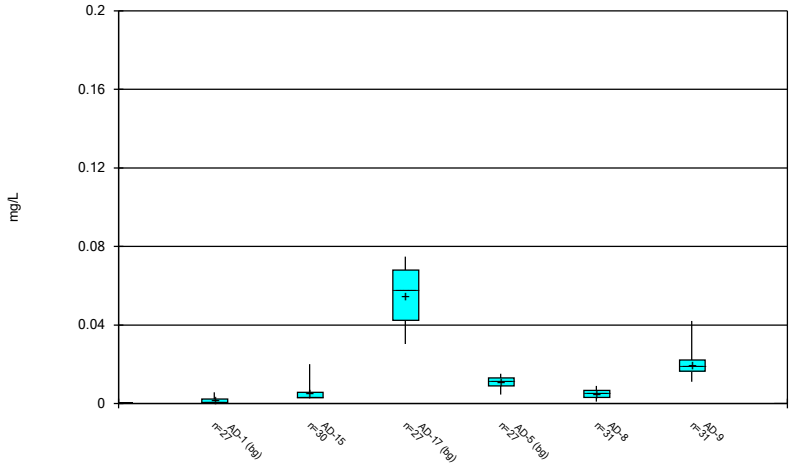
Box & Whiskers Plot



Constituent: Chromium, total Analysis Run 11/18/2025 3:56 PM
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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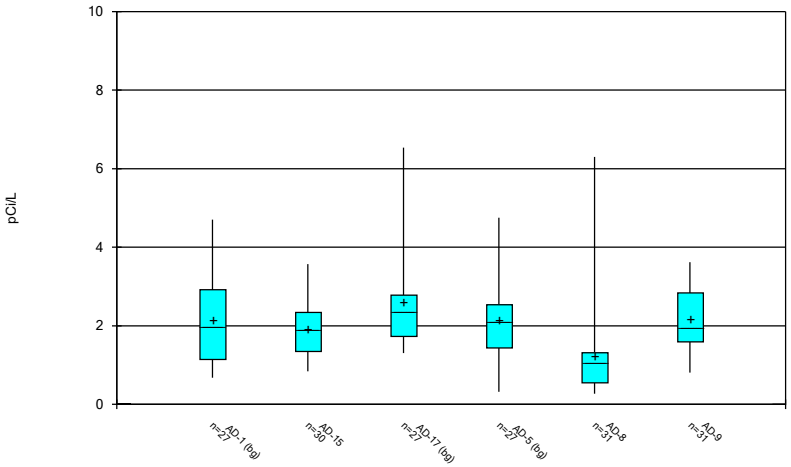
Box & Whiskers Plot



Constituent: Cobalt, total Analysis Run 11/18/2025 3:56 PM
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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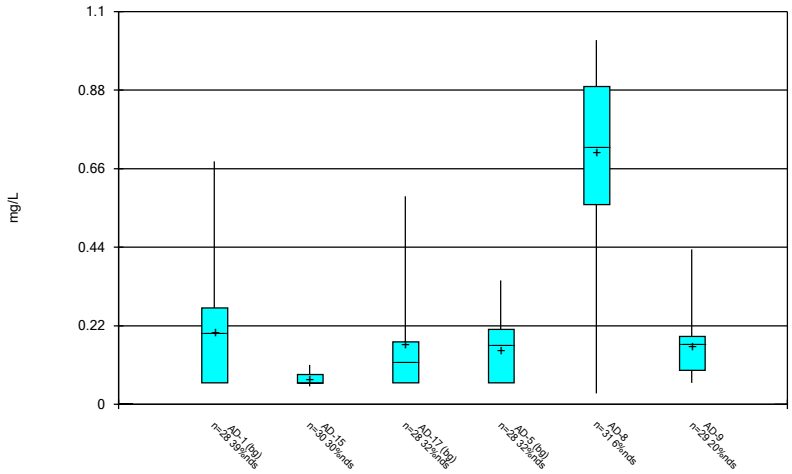
Box & Whiskers Plot



Constituent: Combined Radium 226 + 228 Analysis Run 11/18/2025 3:56 PM
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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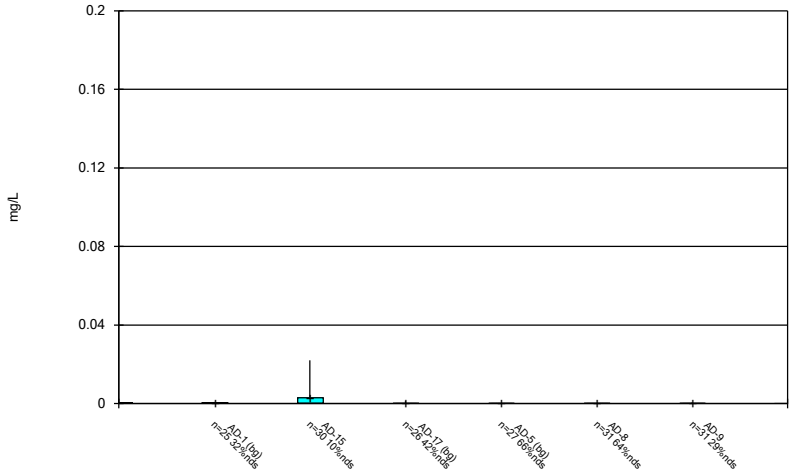
Box & Whiskers Plot



Constituent: Fluoride, total Analysis Run 11/18/2025 3:56 PM
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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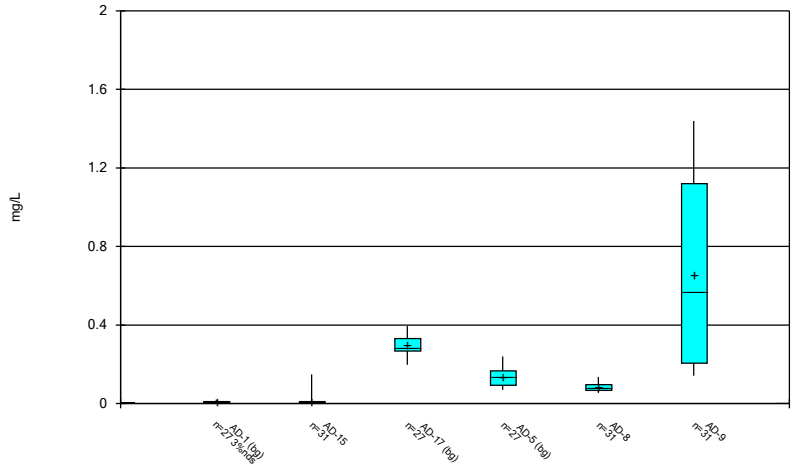
Box & Whiskers Plot



Constituent: Lead, total Analysis Run 11/18/2025 3:56 PM
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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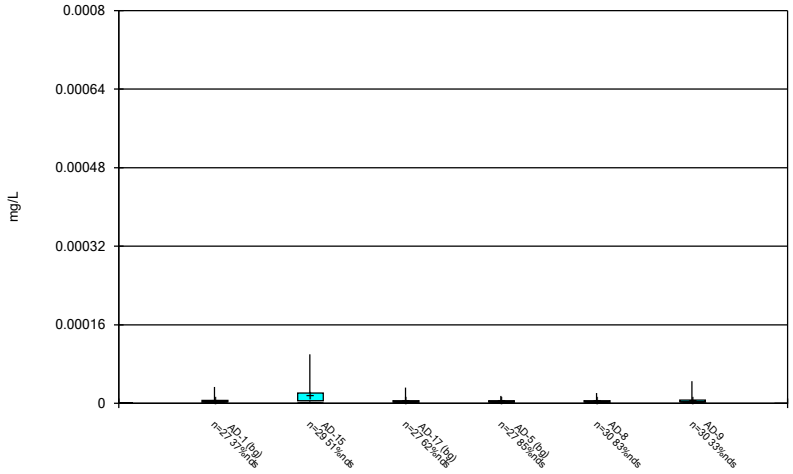
Box & Whiskers Plot



Constituent: Lithium, total Analysis Run 11/18/2025 3:56 PM
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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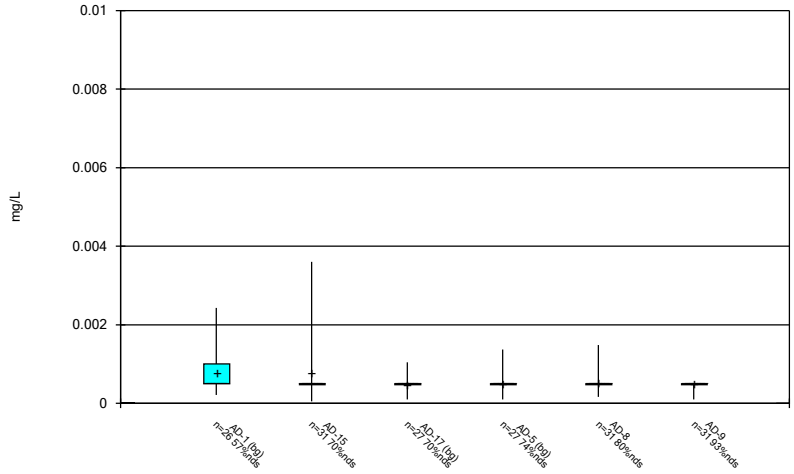
Box & Whiskers Plot



Constituent: Mercury, total Analysis Run 11/18/2025 3:56 PM
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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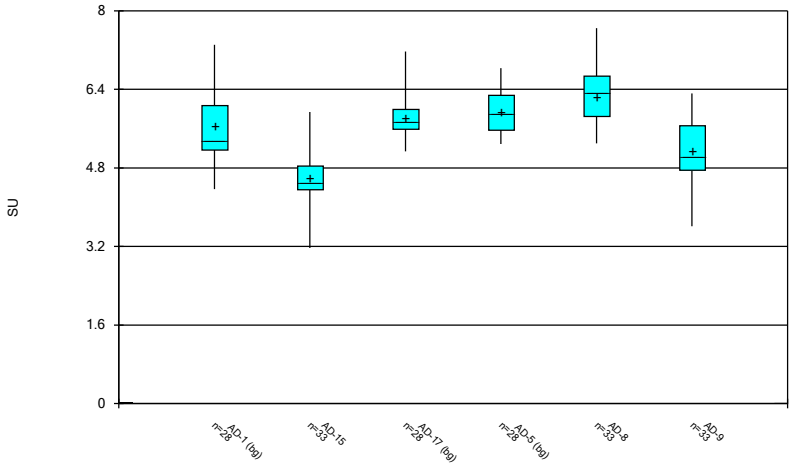
Box & Whiskers Plot



Constituent: Molybdenum, total Analysis Run 11/18/2025 3:56 PM
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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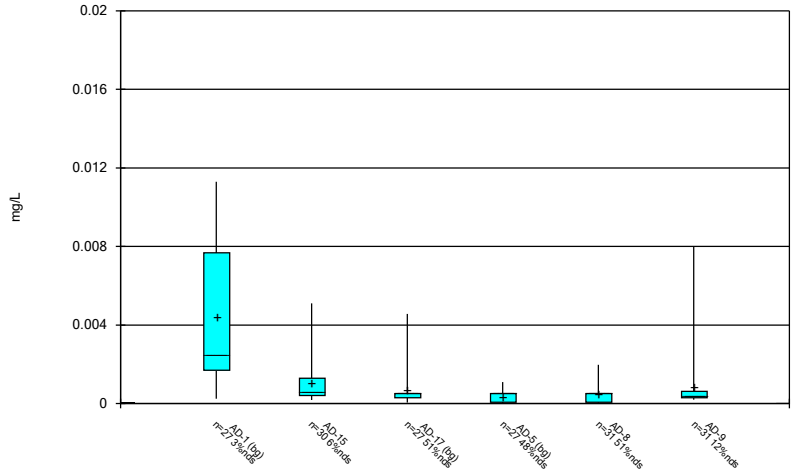
Box & Whiskers Plot



Constituent: pH, field Analysis Run 11/18/2025 3:56 PM
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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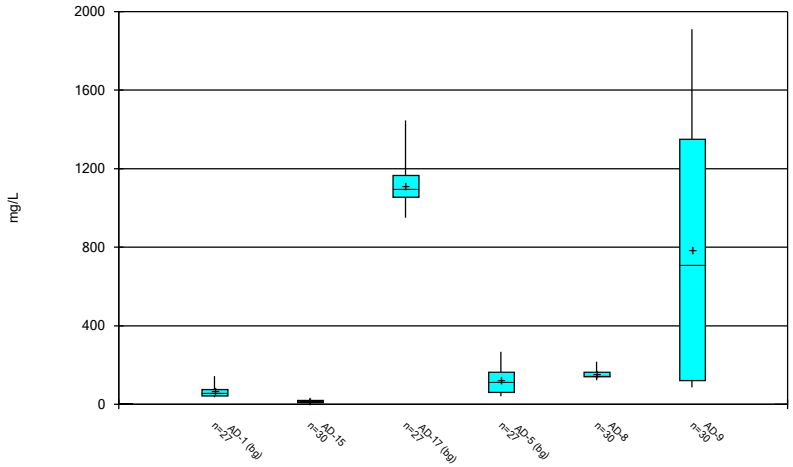
Box & Whiskers Plot



Constituent: Selenium, total Analysis Run 11/18/2025 3:56 PM
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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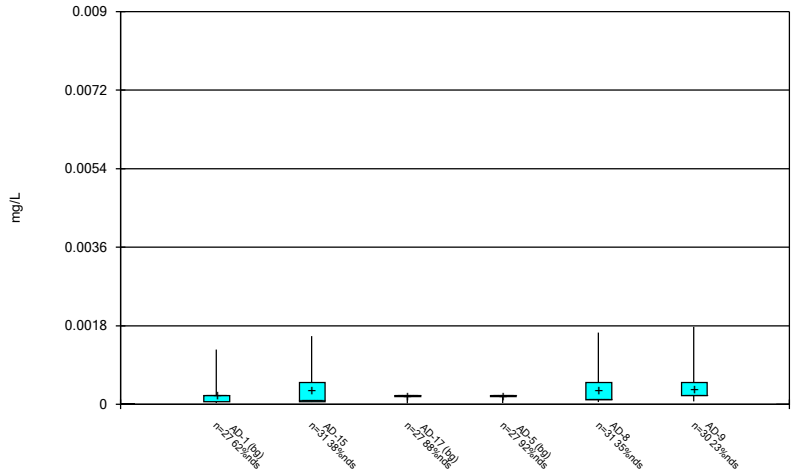
Box & Whiskers Plot



Constituent: Sulfate, total Analysis Run 11/18/2025 3:56 PM
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG

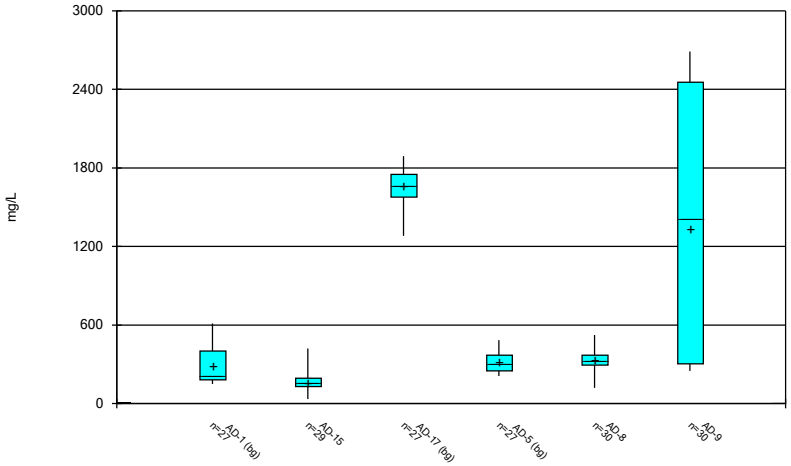
Box & Whiskers Plot



Constituent: Thallium, total Analysis Run 11/18/2025 3:56 PM
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 11/18/2025 3:56 PM

Welsh PBAP Client: Geosyntec Data: Welsh PBAP

FIGURE C

Outlier Summary and Tukey's Outlier Test

Outlier Summary

Welsh PBAP Client: Geosyntec Data: Welsh PBAP Printed 11/18/2025, 3:30 PM

	AD-15 Arsenic, total (mg/L)	AD-15 Barium, total (mg/L)	AD-15 Beryllium, total (mg/L)	AD-15 Cadmium, total (mg/L)	AD-17 Cadmium, total (mg/L)	AD-15 Calcium, total (mg/L)	AD-15 Chromium, total (mg/L)	AD-17 Chromium, total (mg/L)	AD-15 Cobalt, total (mg/L)	AD-15 Combined Radium 226 + 228 (pCi/L)
9/29/2016										9.92 (o)
9/30/2016	0.131 (o)	1.93 (o)	0.015 (o)	0.007 (o)		13.7 (o)	0.28 (o)		0.134 (o)	
10/21/2016										
1/20/2017								0.068 (o)		
6/8/2017					0.00606 (o)					
5/23/2018										
5/24/2018					0.00646 (o)					
2/21/2019										
7/23/2019										
6/2/2021										
4/29/2025										

	AD-15 Fluoride, total (mg/L)	AD-9 Fluoride, total (mg/L)	AD-1 Lead, total (mg/L)	AD-15 Lead, total (mg/L)	AD-17 Lead, total (mg/L)	AD-15 Mercury, total (mg/L)	AD-1 Molybdenum, total (mg/L)	AD-15 Selenium, total (mg/L)	AD-9 Thallium, total (mg/L)	AD-15 Total Dissolved Solids (mg/L)
9/29/2016										
9/30/2016	0.2621 (Jo)		0.003384 (Jo)	0.161 (o)		0.000707 (o)		0.014 (o)		367 (o)
10/21/2016		0.6227 (Jo)								
1/20/2017										
6/8/2017										
5/23/2018									0.00846 (o)	
5/24/2018										
2/21/2019					0.00249 (o)					
7/23/2019		0.5736 (Jo)								
6/2/2021							0.0048 (o)			
4/29/2025			0.00461 (o)							

Tukey's Outlier Test - Significant Results

Welsh PBAP Client: Geosyntec Data: Welsh PBAP Printed 11/14/2025, 12:44 PM

Constituent	Well	Outlier	Value(s)	Method	N	Mean	Std. Dev.	Distribution	Normality Test
Antimony, total (mg/L)	**AD-1,AD-17,AD-5**	**Yes**	**0.00317,0.00003,0.00003,0.00003,0.00003,0.00003,0**	**NP**	**81**	**0.0001639**	**0.000421**	**ln(x)**	**ShapiroFrancia**
Cadmium, total (mg/L)	**AD-1,AD-17,AD-5**	**Yes**	**0.002,0.002,0.002,0.004,0.003,0.003,0.00606,0.006**	**NP**	**81**	**0.0004091**	**0.001185**	**ln(x)**	**ShapiroFrancia**
Chromium, total (mg/L)	**AD-1,AD-17,AD-5**	**Yes**	**0.068**	**NP**	**81**	**0.001424**	**0.007533**	**ln(x)**	**ShapiroFrancia**
Lead, total (mg/L)	**AD-1,AD-17,AD-5**	**Yes**	**0.003384,0.00461,0.0011,0.00249**	**NP**	**81**	**0.0003252**	**0.0006663**	**ln(x)**	**ShapiroFrancia**

Tukey's Outlier Test - All Results

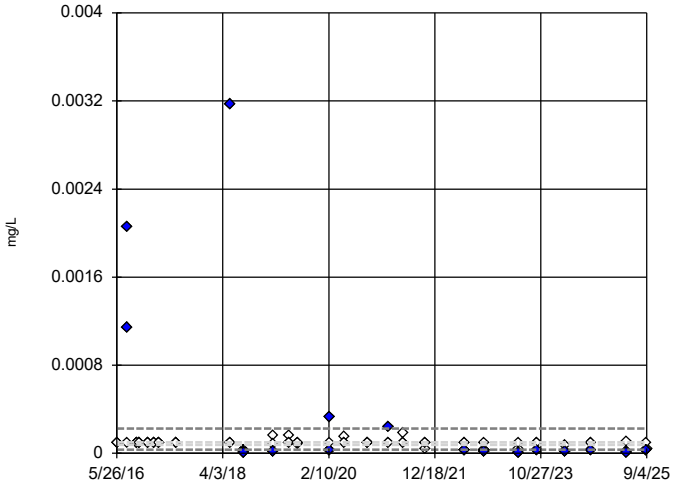
Welsh PBAP Client: Geosyntec Data: Welsh PBAP Printed 11/14/2025, 12:44 PM

Constituent	Well	Outlier	Value(s)	Method	N	Mean	Std. Dev.	Distribution	Normality Test
Antimony, total (mg/L)	**AD-1,AD-17,AD-5**	**Yes**	**0.00317,0.00003,0.00003,0.00003,0.00003,0.00003,0**	**NP**	**81**	**0.0001639**	**0.000421**	**ln(x)**	**ShapiroFrancia**
Arsenic, total (mg/L)	AD-1,AD-17,AD-5	No	n/a	NP	81	0.002252	0.001907	ln(x)	ShapiroFrancia
Barium, total (mg/L)	AD-1,AD-17,AD-5	No	n/a	NP	81	0.09518	0.1155	ln(x)	ShapiroFrancia
Beryllium, total (mg/L)	AD-1,AD-17,AD-5	No	n/a	NP	81	0.0003461	0.0004808	ln(x)	ShapiroFrancia
Boron, total (mg/L)	AD-1,AD-17,AD-5	No	n/a	NP	84	0.2639	0.286	ln(x)	ShapiroFrancia
Cadmium, total (mg/L)	**AD-1,AD-17,AD-5**	**Yes**	**0.002,0.002,0.002,0.004,0.003,0.003,0.00606,0.006**	**NP**	**81**	**0.0004091**	**0.001185**	**ln(x)**	**ShapiroFrancia**
Chromium, total (mg/L)	**AD-1,AD-17,AD-5**	**Yes**	**0.068**	**NP**	**81**	**0.001424**	**0.007533**	**ln(x)**	**ShapiroFrancia**
Cobalt, total (mg/L)	AD-1,AD-17,AD-5	No	n/a	NP	81	0.02248	0.0247	x^(1/3)	ShapiroFrancia
Combined Radium 226 + 228 (pCi/L)	AD-1,AD-17,AD-5	No	n/a	NP	81	2.306	1.116	x^(1/3)	ShapiroFrancia
Fluoride, total (mg/L)	AD-1,AD-17,AD-5	No	n/a	NP	84	0.1572	0.1549	sqrt(x)	ShapiroFrancia
Lead, total (mg/L)	**AD-1,AD-17,AD-5**	**Yes**	**0.003384,0.00461,0.0011,0.00249**	**NP**	**81**	**0.0003252**	**0.0006663**	**ln(x)**	**ShapiroFrancia**
Lithium, total (mg/L)	AD-1,AD-17,AD-5	No	n/a	NP	81	0.1466	0.1254	sqrt(x)	ShapiroFrancia
Mercury, total (mg/L)	AD-1,AD-17,AD-5	n/a	n/a	NP	81	0.0000065671	0.000005426	unknown	ShapiroFrancia
Molybdenum, total (mg/L)	AD-1,AD-17,AD-5	n/a	n/a	NP	81	0.0006228	0.0006107	unknown	ShapiroFrancia
pH, field (SU)	AD-1,AD-17,AD-5	No	n/a	NP	84	5.807	0.596	ln(x)	ShapiroFrancia
Selenium, total (mg/L)	AD-1,AD-17,AD-5	No	n/a	NP	81	0.001788	0.002828	ln(x)	ShapiroFrancia
Thallium, total (mg/L)	AD-1,AD-17,AD-5	n/a	n/a	NP	81	0.000198	0.0001576	unknown	ShapiroFrancia

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Tukey's Outlier Screening, Pooled Background

AD-1,AD-17,AD-5



n = 81

Outliers are drawn as solid.
Tukey's method selected by user.

Data were natural log transformed to achieve best W statistic (graph shown in original units).

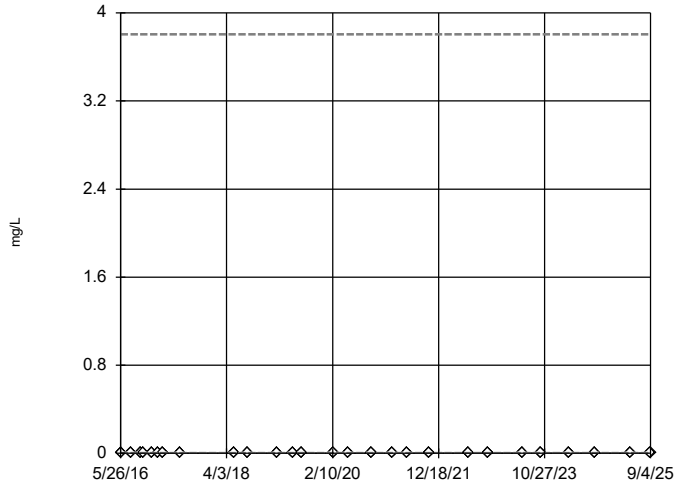
High cutoff = 0.0002241, low cutoff = 0.00003411, based on IQR multiplier of 3.

Constituent: Antimony, total Analysis Run 11/14/2025 12:41 PM View: Upgradient Outliers
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Tukey's Outlier Screening, Pooled Background

AD-1,AD-17,AD-5



n = 81

No outliers found.
Tukey's method selected by user.

Data were natural log transformed to achieve best W statistic (graph shown in original units).

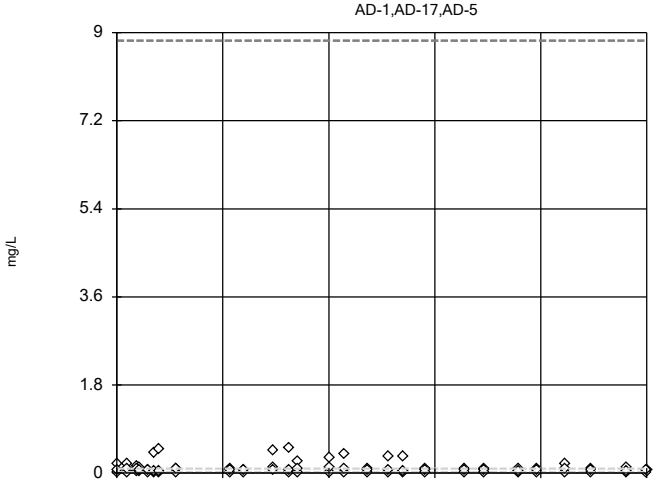
High cutoff = 3.806, low cutoff = 6.8e-7, based on IQR multiplier of 3.

Constituent: Arsenic, total Analysis Run 11/14/2025 12:41 PM View: Upgradient Outliers
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Tukey's Outlier Screening, Pooled Background

AD-1,AD-17,AD-5



n = 81

No outliers found.
Tukey's method selected by user.

Data were natural log transformed to achieve best W statistic (graph shown in original units).

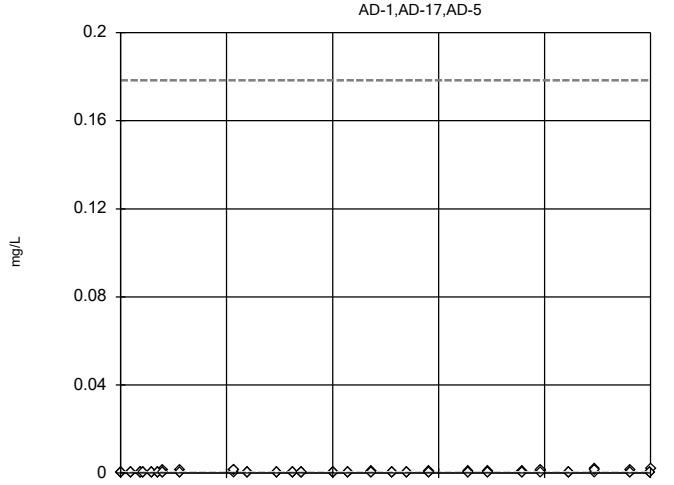
High cutoff = 8.835, low cutoff = 0.0002004, based on IQR multiplier of 3.

Constituent: Barium, total Analysis Run 11/14/2025 12:41 PM View: Upgradient Outliers
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Tukey's Outlier Screening, Pooled Background

AD-1,AD-17,AD-5



n = 81

No outliers found.
Tukey's method selected by user.

Data were natural log transformed to achieve best W statistic (graph shown in original units).

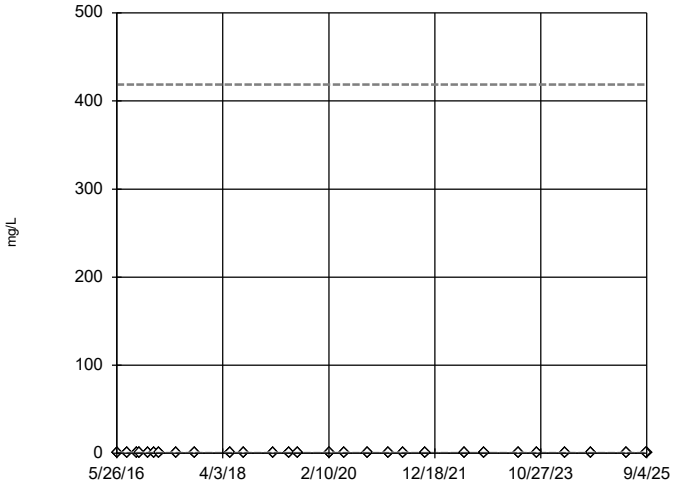
High cutoff = 0.1784, low cutoff = 1.1e-7, based on IQR multiplier of 3.

Constituent: Beryllium, total Analysis Run 11/14/2025 12:41 PM View: Upgradient Outliers
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Tukey's Outlier Screening, Pooled Background

AD-1,AD-17,AD-5



n = 84

No outliers found.
Tukey's method selected by user.

Data were natural log transformed to achieve best W statistic (graph shown in original units).

High cutoff = 418.7, low cutoff = 0.00004852, based on IQR multiplier of 3.

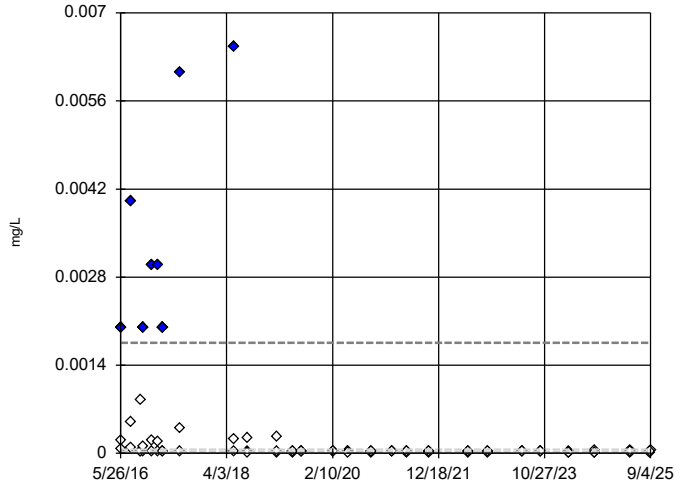
Constituent: Boron, total Analysis Run 11/14/2025 12:41 PM View: Upgradient Outliers

Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Tukey's Outlier Screening, Pooled Background

AD-1,AD-17,AD-5



n = 81

Outliers are drawn as solid.
Tukey's method selected by user.

Data were natural log transformed to achieve best W statistic (graph shown in original units).

High cutoff = 0.001757, low cutoff = 7.0e-7, based on IQR multiplier of 3.

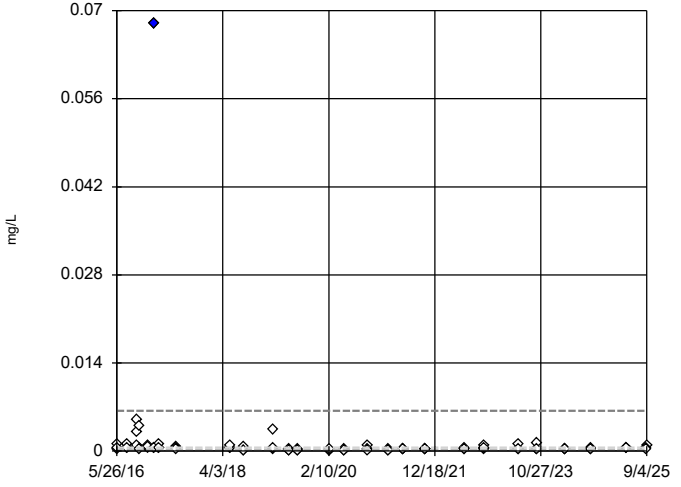
Constituent: Cadmium, total Analysis Run 11/14/2025 12:41 PM View: Upgradient Outliers

Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Tukey's Outlier Screening, Pooled Background

AD-1,AD-17,AD-5



n = 81

Outlier is drawn as solid.
Tukey's method selected by user.

Data were natural log transformed to achieve best W statistic (graph shown in original units).

High cutoff = 0.006408, low cutoff = 0.00002149, based on IQR multiplier of 3.

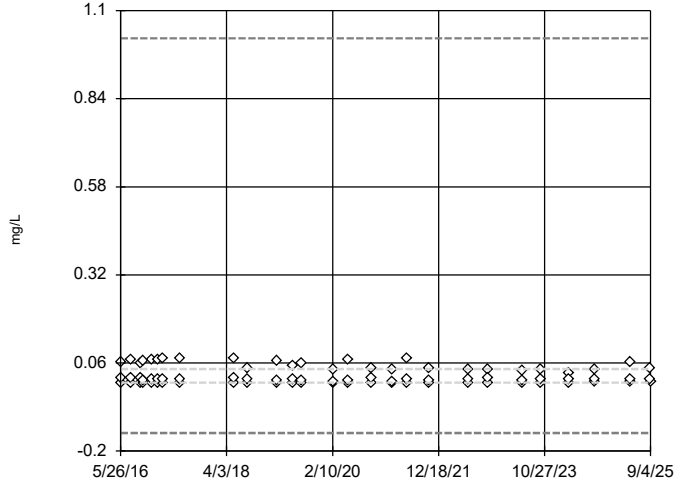
Constituent: Chromium, total Analysis Run 11/14/2025 12:41 PM View: Upgradient Outliers

Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Tukey's Outlier Screening, Pooled Background

AD-1,AD-17,AD-5



n = 81

No outliers found.
Tukey's method selected by user.

Data were cube root transformed to achieve best W statistic (graph shown in original units).

High cutoff = 1.018, low cutoff = -0.1468, based on IQR multiplier of 3.

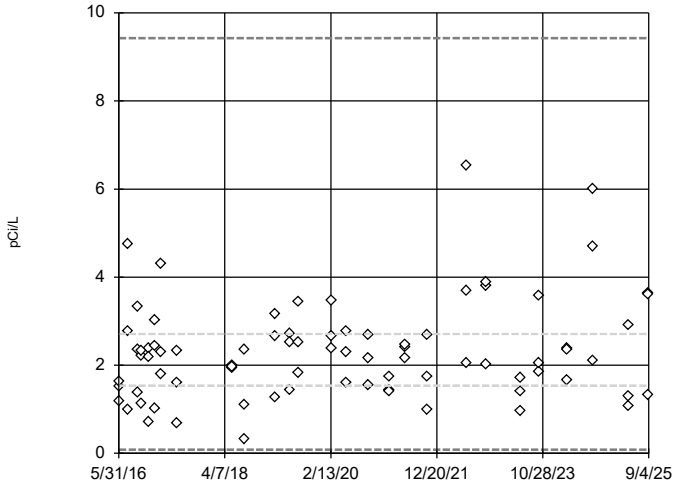
Constituent: Cobalt, total Analysis Run 11/14/2025 12:41 PM View: Upgradient Outliers

Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Tukey's Outlier Screening, Pooled Background

AD-1,AD-17,AD-5



n = 81

No outliers found. Tukey's method selected by user.

Data were cube root transformed to achieve best W statistic (graph shown in original units).

High cutoff = 9.427, low cutoff = 0.0828, based on IQR multiplier of 3.

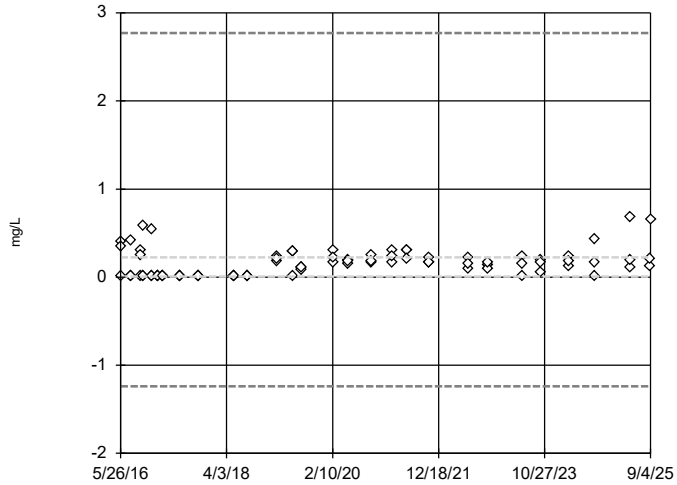
Constituent: Combined Radium 226 + 228 Analysis Run 11/14/2025 12:41 PM View: Upgradient Outliers

Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Tukey's Outlier Screening, Pooled Background

AD-1,AD-17,AD-5



n = 84

No outliers found. Tukey's method selected by user.

Data were square root transformed to achieve best W statistic (graph shown in original units).

High cutoff = 2.772, low cutoff = -1.239, based on IQR multiplier of 3.

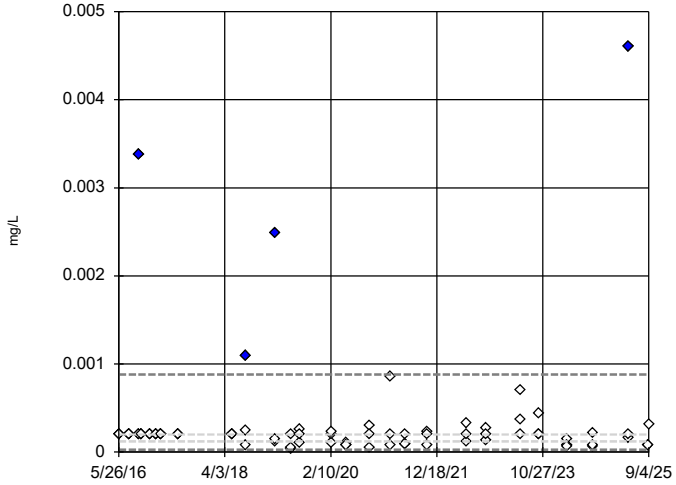
Constituent: Fluoride, total Analysis Run 11/14/2025 12:41 PM View: Upgradient Outliers

Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Tukey's Outlier Screening, Pooled Background

AD-1,AD-17,AD-5



n = 81

Outliers are drawn as solid.
Tukey's method selected by user.

Data were natural log transformed to achieve best W statistic (graph shown in original units).

High cutoff = 0.0008815, low cutoff = 0.00002768, based on IQR multiplier of 3.

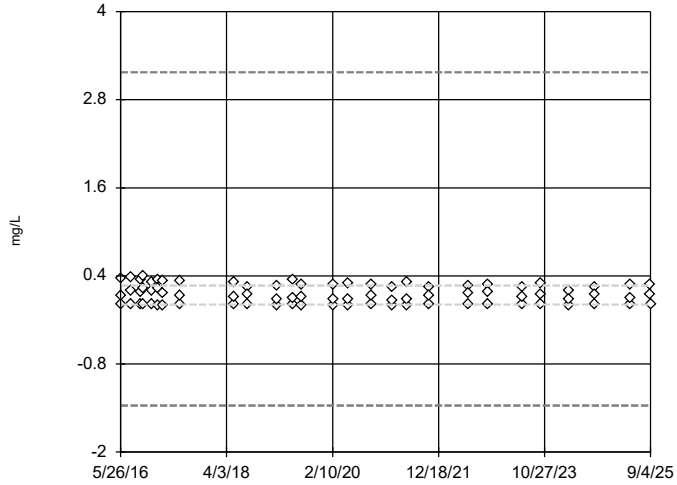
Constituent: Lead, total Analysis Run 11/14/2025 12:41 PM View: Upgradient Outliers

Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Tukey's Outlier Screening, Pooled Background

AD-1,AD-17,AD-5



n = 81

No outliers found. Tukey's method selected by user.

Data were square root transformed to achieve best W statistic (graph shown in original units).

High cutoff = 3.174, low cutoff = -1.366, based on IQR multiplier of 3.

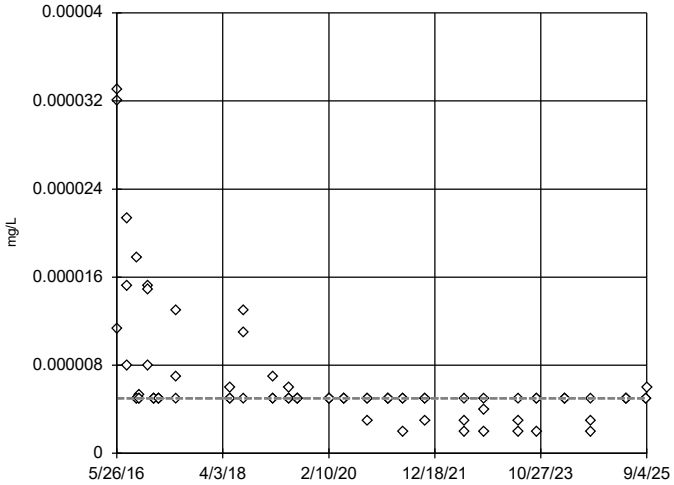
Constituent: Lithium, total Analysis Run 11/14/2025 12:41 PM View: Upgradient Outliers

Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Tukey's Outlier Screening, Pooled Background

AD-1,AD-17,AD-5



n = 81

No outliers found. Tukey's method selected by user.

Data were natural log transformed to achieve best W statistic (graph shown in original units).

The results were invalidated, because the lower and upper quartiles are equal.

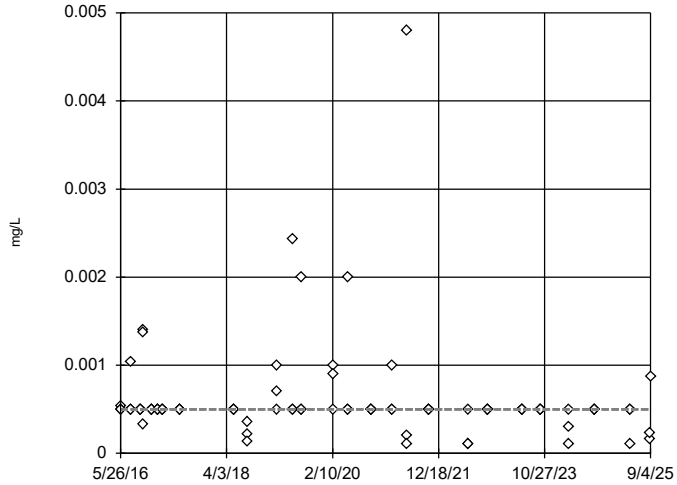
Constituent: Mercury, total Analysis Run 11/14/2025 12:41 PM View: Upgradient Outliers

Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Tukey's Outlier Screening, Pooled Background

AD-1,AD-17,AD-5



n = 81

No outliers found. Tukey's method selected by user.

Data were natural log transformed to achieve best W statistic (graph shown in original units).

The results were invalidated, because the lower and upper quartiles are equal.

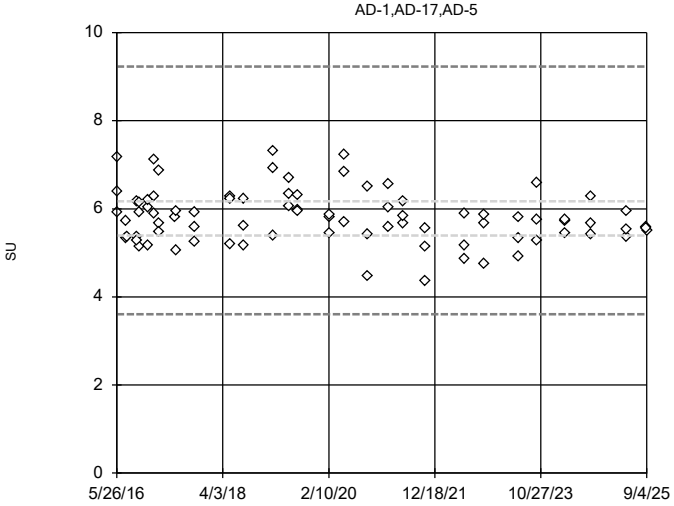
Constituent: Molybdenum, total Analysis Run 11/14/2025 12:41 PM View: Upgradient Outliers

Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Tukey's Outlier Screening, Pooled Background

AD-1,AD-17,AD-5



n = 84

No outliers found. Tukey's method selected by user.

Data were natural log transformed to achieve best W statistic (graph shown in original units).

High cutoff = 9.229, low cutoff = 3.607, based on IQR multiplier of 3.

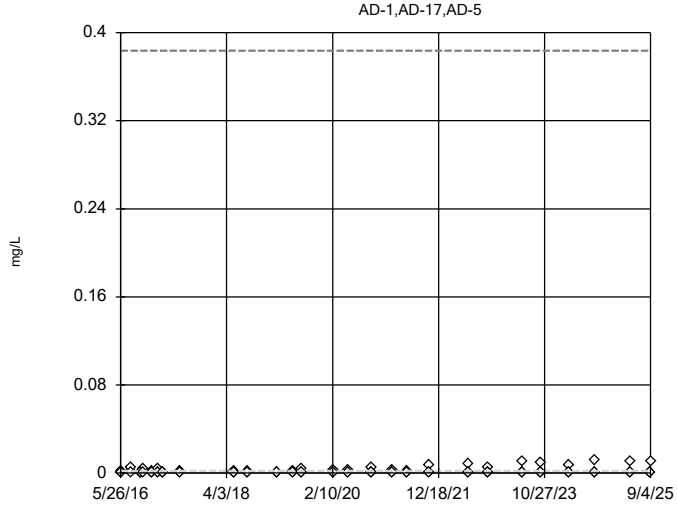
Constituent: pH, field Analysis Run 11/14/2025 12:41 PM View: Upgradient Outliers

Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Tukey's Outlier Screening, Pooled Background

AD-1,AD-17,AD-5



n = 81

No outliers found. Tukey's method selected by user.

Data were natural log transformed to achieve best W statistic (graph shown in original units).

High cutoff = 0.3835, low cutoff = 0.000001485, based on IQR multiplier of 3.

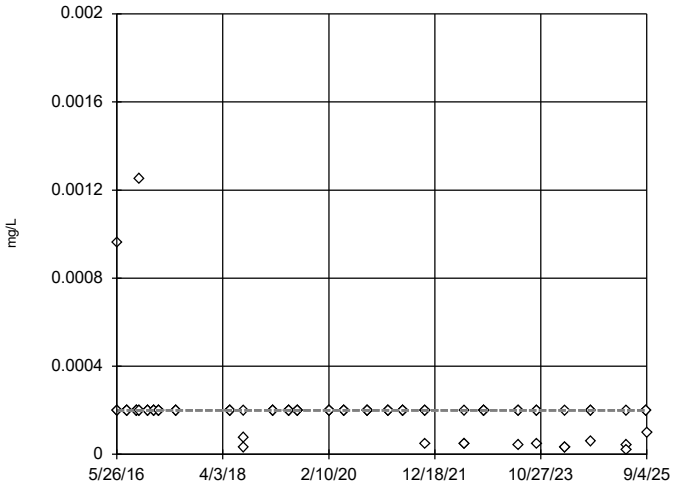
Constituent: Selenium, total Analysis Run 11/14/2025 12:41 PM View: Upgradient Outliers

Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Tukey's Outlier Screening, Pooled Background

AD-1,AD-17,AD-5



n = 81

No outliers found. Tukey's method selected by user.

Data were natural log transformed to achieve best W statistic (graph shown in original units).

The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Thallium, total Analysis Run 11/14/2025 12:41 PM View: Upgradient Outliers

Welsh PBAP Client: Geosyntec Data: Welsh PBAP

FIGURE D

Intrawell PLs

Intrawell Prediction Limits - All Results

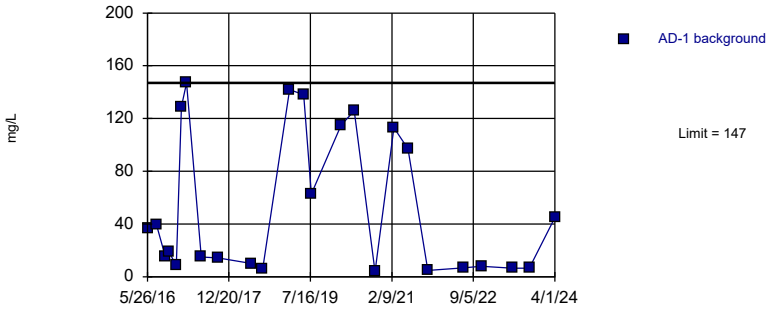
Welsh PBAP Client: Geosyntec Data: Welsh PBAP Printed 12/12/2025, 4:41 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Calcium, total (mg/L)	AD-1	147	n/a	n/a	1 future	n/a	25	n/a	n/a	0	n/a	n/a	0.002832	NP Intra (normality) 1 of 2
Calcium, total (mg/L)	AD-15	4.419	n/a	n/a	1 future	n/a	27	3.194	0.6729	0	None	No	0.002505	Param Intra 1 of 2
Calcium, total (mg/L)	AD-17	233.4	n/a	n/a	1 future	n/a	25	188.4	24.52	0	None	No	0.002505	Param Intra 1 of 2
Calcium, total (mg/L)	AD-5	51.88	n/a	n/a	1 future	n/a	25	37.48	7.852	0	None	No	0.002505	Param Intra 1 of 2
Calcium, total (mg/L)	AD-8	27.3	n/a	n/a	1 future	n/a	28	4.392	0.459	0	None	sqrt(x)	0.002505	Param Intra 1 of 2
Calcium, total (mg/L)	AD-9	258	n/a	n/a	1 future	n/a	28	n/a	n/a	0	n/a	n/a	0.002337	NP Intra (normality) 1 of 2
Chloride, total (mg/L)	AD-1	6.459	n/a	n/a	1 future	n/a	24	1.841	0.3793	0	None	sqrt(x)	0.002505	Param Intra 1 of 2
Chloride, total (mg/L)	AD-15	35.53	n/a	n/a	1 future	n/a	26	28.68	3.749	0	None	No	0.002505	Param Intra 1 of 2
Chloride, total (mg/L)	AD-17	45.95	n/a	n/a	1 future	n/a	24	36.8	4.96	0	None	No	0.002505	Param Intra 1 of 2
Chloride, total (mg/L)	AD-5	26.24	n/a	n/a	1 future	n/a	24	4.229	0.484	0	None	sqrt(x)	0.002505	Param Intra 1 of 2
Chloride, total (mg/L)	AD-8	25.91	n/a	n/a	1 future	n/a	21	19.3	3.511	0	None	No	0.002505	Param Intra 1 of 2
Chloride, total (mg/L)	AD-9	103	n/a	n/a	1 future	n/a	26	n/a	n/a	0	n/a	n/a	0.002667	NP Intra (normality) 1 of 2
Fluoride, total (mg/L)	AD-1	0.31	n/a	n/a	1 future	n/a	25	n/a	n/a	44	n/a	n/a	0.002832	NP Intra (normality) 1 of 2
Fluoride, total (mg/L)	AD-15	0.15	n/a	n/a	1 future	n/a	26	n/a	n/a	34.62	n/a	n/a	0.002667	NP Intra (normality) 1 of 2
Fluoride, total (mg/L)	AD-17	0.31	n/a	n/a	1 future	n/a	20	n/a	n/a	40	n/a	n/a	0.004291	NP Intra (normality) 1 of 2
Fluoride, total (mg/L)	AD-5	0.3469	n/a	n/a	1 future	n/a	25	n/a	n/a	36	n/a	n/a	0.002832	NP Intra (normality) 1 of 2
Fluoride, total (mg/L)	AD-8	0.9812	n/a	n/a	1 future	n/a	27	0.4985	0.255	7.407	None	x^2	0.002505	Param Intra 1 of 2
Fluoride, total (mg/L)	AD-9	0.4339	n/a	n/a	1 future	n/a	25	n/a	n/a	24	n/a	n/a	0.002832	NP Intra (normality) 1 of 2
Sulfate, total (mg/L)	AD-1	90.85	n/a	n/a	1 future	n/a	24	57.11	18.28	0	None	No	0.002505	Param Intra 1 of 2
Sulfate, total (mg/L)	AD-15	28.23	n/a	n/a	1 future	n/a	26	15.45	6.991	0	None	No	0.002505	Param Intra 1 of 2
Sulfate, total (mg/L)	AD-17	1292	n/a	n/a	1 future	n/a	24	33.37	1.389	0	None	sqrt(x)	0.002505	Param Intra 1 of 2
Sulfate, total (mg/L)	AD-5	256.6	n/a	n/a	1 future	n/a	24	127.6	69.88	0	None	No	0.002505	Param Intra 1 of 2
Sulfate, total (mg/L)	AD-8	197.6	n/a	n/a	1 future	n/a	26	156.9	22.26	0	None	No	0.002505	Param Intra 1 of 2
Sulfate, total (mg/L)	AD-9	1910	n/a	n/a	1 future	n/a	26	n/a	n/a	0	n/a	n/a	0.002667	NP Intra (normality) 1 of 2
Total Dissolved Solids (mg/L)	AD-1	612	n/a	n/a	1 future	n/a	24	n/a	n/a	0	n/a	n/a	0.003124	NP Intra (normality) 1 of 2
Total Dissolved Solids (mg/L)	AD-15	242.5	n/a	n/a	1 future	n/a	25	155.6	47.4	0	None	No	0.002505	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	AD-17	1935	n/a	n/a	1 future	n/a	24	1670	143.4	0	None	No	0.002505	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	AD-5	470	n/a	n/a	1 future	n/a	24	321.6	80.41	0	None	No	0.002505	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	AD-8	467	n/a	n/a	1 future	n/a	26	348.7	64.75	0	None	No	0.002505	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	AD-9	2690	n/a	n/a	1 future	n/a	26	n/a	n/a	0	n/a	n/a	0.002667	NP Intra (normality) 1 of 2

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Prediction Limit

Intrawell Non-parametric, AD-1 (bg)



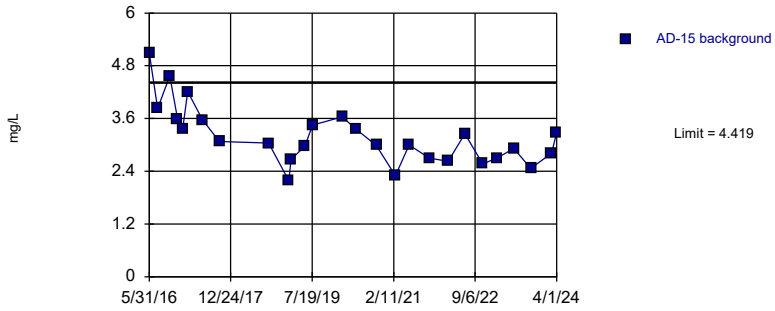
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 25 background values. Well-constituent pair annual alpha = 0.005656. Individual comparison alpha = 0.002832 (1 of 2). Assumes 1 future value.

Constituent: Calcium, total Analysis Run 12/12/2025 4:35 PM View: Intrawell
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Prediction Limit

Intrawell Parametric, AD-15



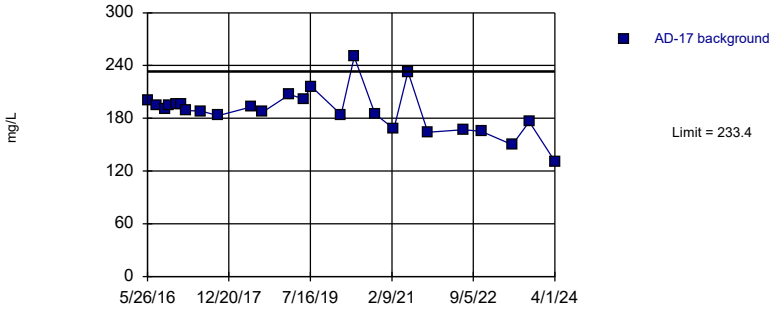
Background Data Summary: Mean=3.194, Std. Dev.=0.6729, n=27. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9317, critical = 0.894. Kappa = 1.82 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Assumes 1 future value.

Constituent: Calcium, total Analysis Run 12/12/2025 4:35 PM View: Intrawell
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Prediction Limit

Intrawell Parametric, AD-17 (bg)



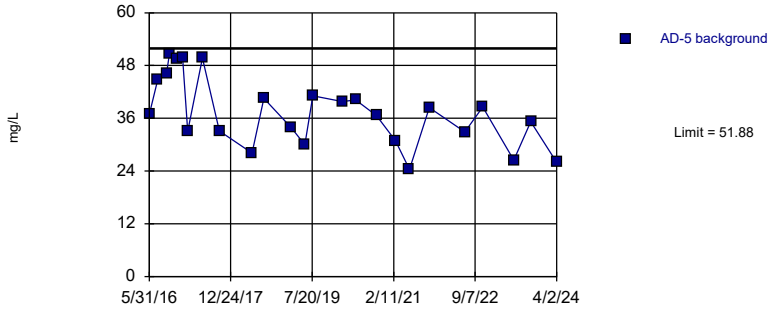
Background Data Summary: Mean=188.4, Std. Dev.=24.52, n=25. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9592, critical = 0.888. Kappa = 1.834 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Assumes 1 future value.

Constituent: Calcium, total Analysis Run 12/12/2025 4:35 PM View: Intrawell
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Prediction Limit

Intrawell Parametric, AD-5 (bg)



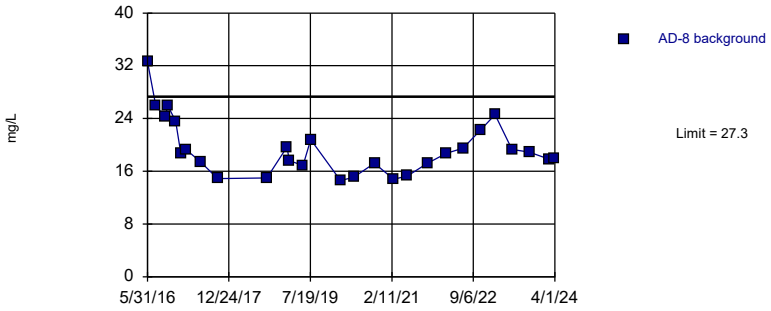
Background Data Summary: Mean=37.48, Std. Dev.=7.852, n=25. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.954, critical = 0.888. Kappa = 1.834 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Assumes 1 future value.

Constituent: Calcium, total Analysis Run 12/12/2025 4:35 PM View: Intrawell
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Prediction Limit

Intrawell Parametric, AD-8



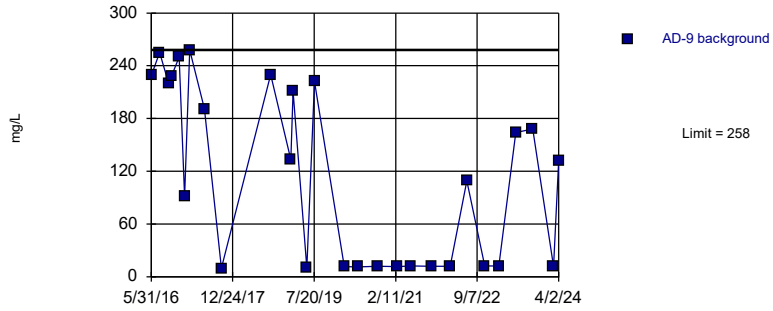
Background Data Summary (based on square root transformation): Mean=4.392, Std. Dev.=0.459, n=28. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9118, critical = 0.896. Kappa = 1.814 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Assumes 1 future value.

Constituent: Calcium, total Analysis Run 12/12/2025 4:35 PM View: Intrawell
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Prediction Limit

Intrawell Non-parametric, AD-9



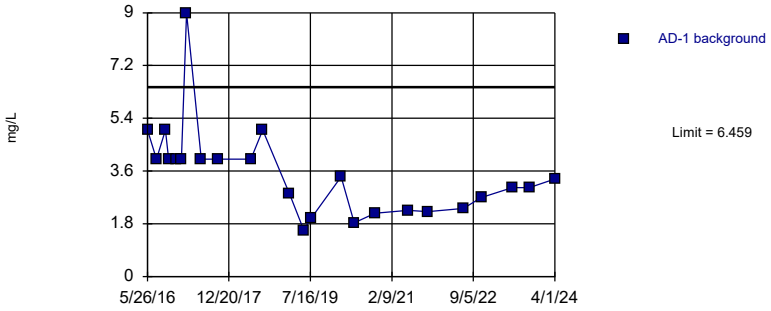
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 28 background values. Well-constituent pair annual alpha = 0.004669. Individual comparison alpha = 0.002337 (1 of 2). Assumes 1 future value.

Constituent: Calcium, total Analysis Run 12/12/2025 4:35 PM View: Intrawell
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Prediction Limit

Intrawell Parametric, AD-1 (bg)



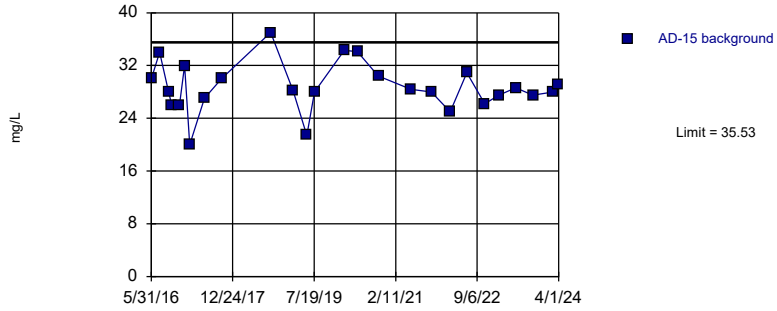
Background Data Summary (based on square root transformation): Mean=1.841, Std. Dev.=0.3793, n=24. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9139, critical = 0.884. Kappa = 1.846 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Assumes 1 future value.

Constituent: Chloride, total Analysis Run 12/12/2025 4:35 PM View: Intrawell
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Prediction Limit

Intrawell Parametric, AD-15



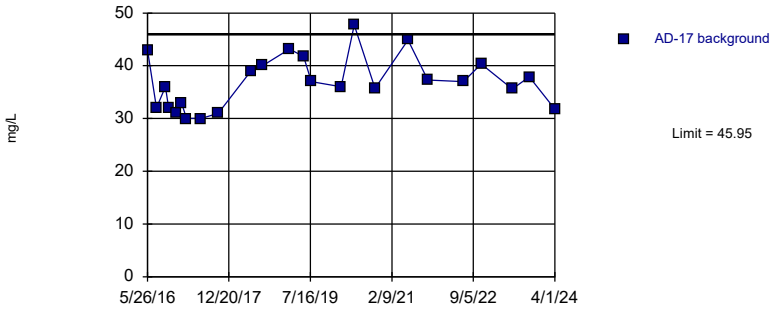
Background Data Summary: Mean=28.68, Std. Dev.=3.749, n=26. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9575, critical = 0.891. Kappa = 1.827 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Assumes 1 future value.

Constituent: Chloride, total Analysis Run 12/12/2025 4:35 PM View: Intrawell
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Prediction Limit

Intrawell Parametric, AD-17 (bg)



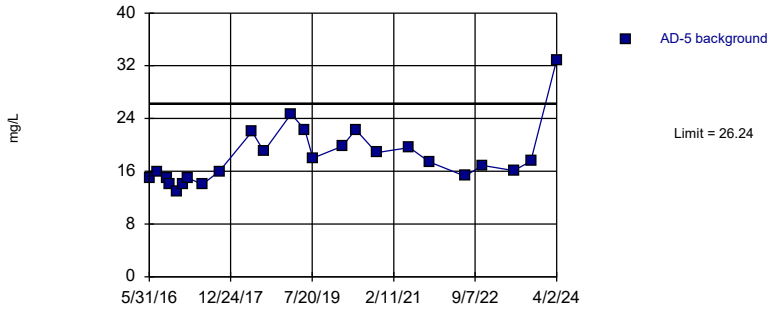
Background Data Summary: Mean=36.8, Std. Dev.=4.96, n=24. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9512, critical = 0.884. Kappa = 1.846 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Assumes 1 future value.

Constituent: Chloride, total Analysis Run 12/12/2025 4:35 PM View: Intrawell
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Prediction Limit

Intrawell Parametric, AD-5 (bg)



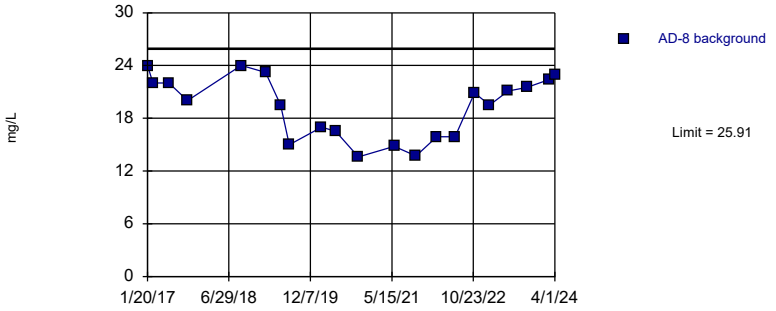
Background Data Summary (based on square root transformation): Mean=4.229, Std. Dev.=0.484, n=24. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8915, critical = 0.884. Kappa = 1.846 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Assumes 1 future value.

Constituent: Chloride, total Analysis Run 12/12/2025 4:35 PM View: Intrawell
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Prediction Limit

Intrawell Parametric, AD-8



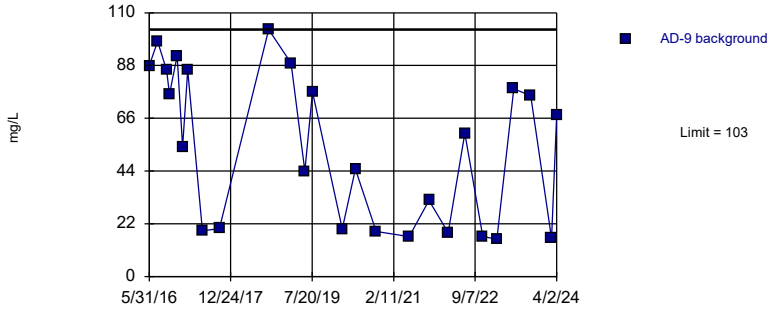
Background Data Summary: Mean=19.3, Std. Dev.=3.511, n=21. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9142, critical = 0.873. Kappa = 1.88 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Assumes 1 future value.

Constituent: Chloride, total Analysis Run 12/12/2025 4:35 PM View: Intrawell
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Prediction Limit

Intrawell Non-parametric, AD-9



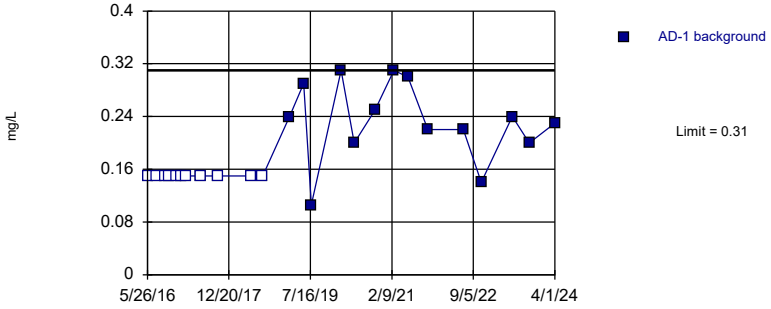
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 26 background values. Well-constituent pair annual alpha = 0.005327. Individual comparison alpha = 0.002667 (1 of 2). Assumes 1 future value.

Constituent: Chloride, total Analysis Run 12/12/2025 4:35 PM View: Intrawell
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Hollow symbols indicate censored values.

Prediction Limit

Intrawell Non-parametric, AD-1 (bg)



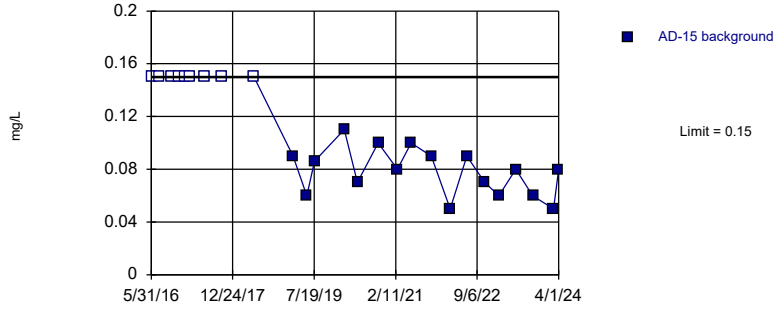
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 25 background values. 44% NDs. Well-constituent pair annual alpha = 0.005656. Individual comparison alpha = 0.002832 (1 of 2). Assumes 1 future value.

Constituent: Fluoride, total Analysis Run 12/12/2025 4:35 PM View: Intrawell
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Hollow symbols indicate censored values.

Prediction Limit

Intrawell Non-parametric, AD-15



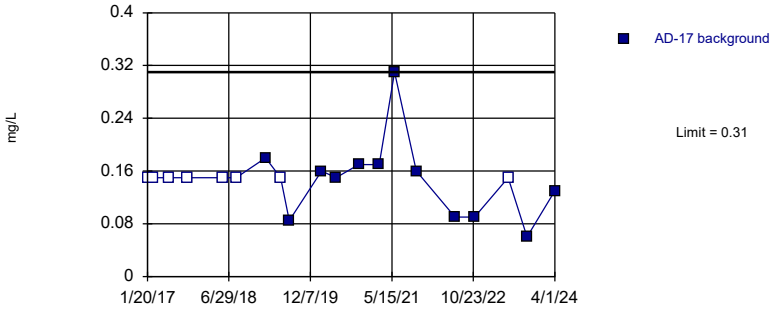
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 26 background values. 34.62% NDs. Well-constituent pair annual alpha = 0.005327. Individual comparison alpha = 0.002667 (1 of 2). Assumes 1 future value.

Constituent: Fluoride, total Analysis Run 12/12/2025 4:35 PM View: Intrawell
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Prediction Limit

Intrawell Non-parametric, AD-17 (bg)



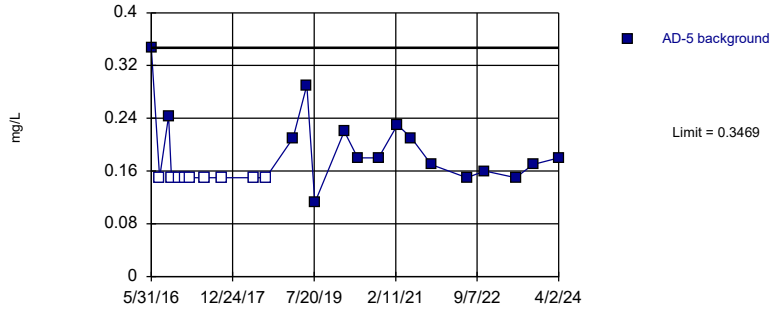
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 20 background values. 40% NDs. Well-constituent pair annual alpha = 0.008564. Individual comparison alpha = 0.004291 (1 of 2). Assumes 1 future value.

Constituent: Fluoride, total Analysis Run 12/12/2025 4:35 PM View: Intrawell
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Prediction Limit

Intrawell Non-parametric, AD-5 (bg)



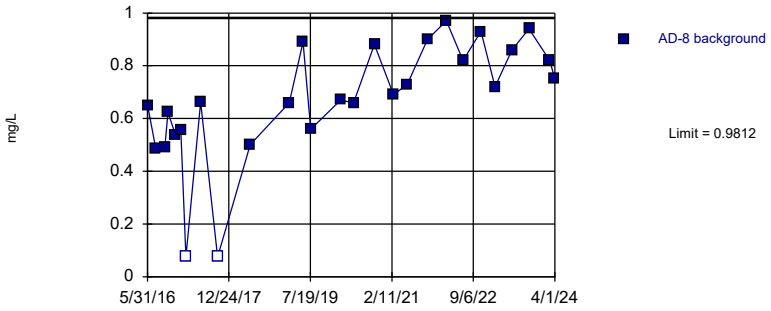
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 25 background values. 36% NDs. Well-constituent pair annual alpha = 0.005656. Individual comparison alpha = 0.002832 (1 of 2). Assumes 1 future value.

Constituent: Fluoride, total Analysis Run 12/12/2025 4:35 PM View: Intrawell
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Prediction Limit

Intrawell Parametric, AD-8



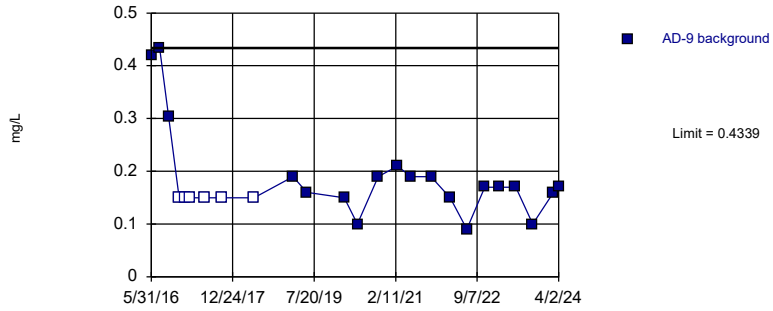
Background Data Summary (based on square transformation): Mean=0.4985, Std. Dev.=0.255, n=27, 7.407% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9616, critical = 0.894. Kappa = 1.82 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Assumes 1 future value.

Constituent: Fluoride, total Analysis Run 12/12/2025 4:35 PM View: Intrawell
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Prediction Limit

Intrawell Non-parametric, AD-9



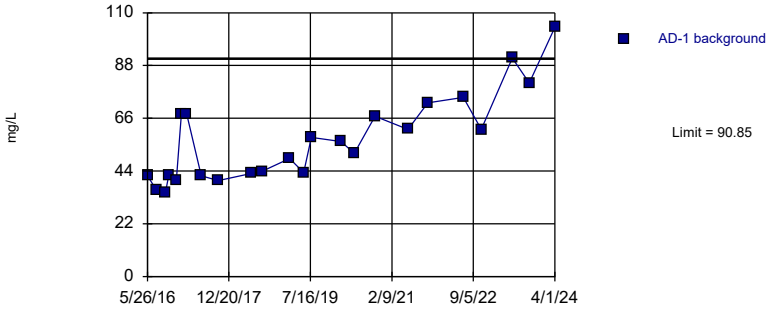
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 25 background values. 24% NDs. Well-constituent pair annual alpha = 0.005656. Individual comparison alpha = 0.002832 (1 of 2). Assumes 1 future value.

Constituent: Fluoride, total Analysis Run 12/12/2025 4:36 PM View: Intrawell
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Prediction Limit

Intrawell Parametric, AD-1 (bg)



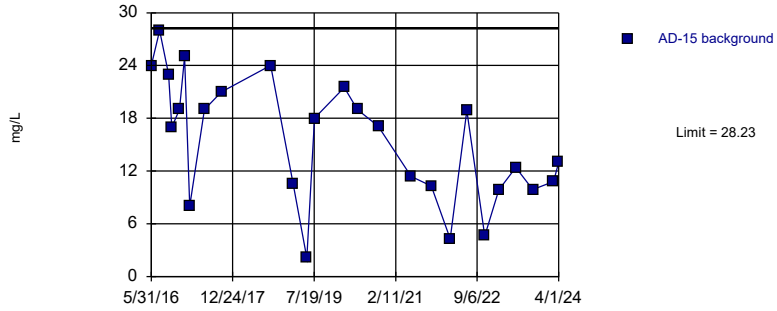
Background Data Summary: Mean=57.11, Std. Dev.=18.28, n=24. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9094, critical = 0.884. Kappa = 1.846 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Assumes 1 future value.

Constituent: Sulfate, total Analysis Run 12/12/2025 4:36 PM View: Intrawell
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Prediction Limit

Intrawell Parametric, AD-15



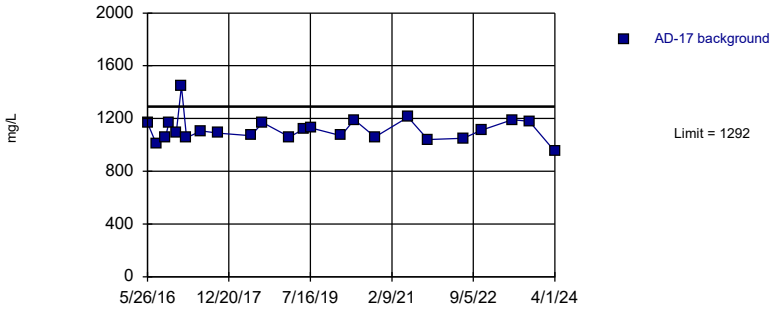
Background Data Summary: Mean=15.45, Std. Dev.=6.991, n=26. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9629, critical = 0.891. Kappa = 1.827 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Assumes 1 future value.

Constituent: Sulfate, total Analysis Run 12/12/2025 4:36 PM View: Intrawell
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Prediction Limit

Intrawell Parametric, AD-17 (bg)



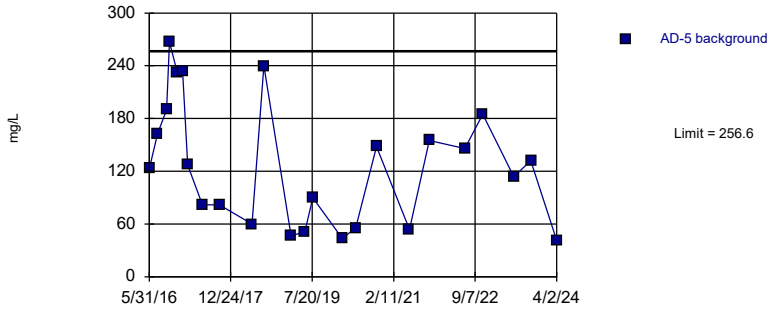
Background Data Summary (based on square root transformation): Mean=33.37, Std. Dev.=1.389, n=24. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8875, critical = 0.884. Kappa = 1.846 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Assumes 1 future value.

Constituent: Sulfate, total Analysis Run 12/12/2025 4:36 PM View: Intrawell
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Prediction Limit

Intrawell Parametric, AD-5 (bg)



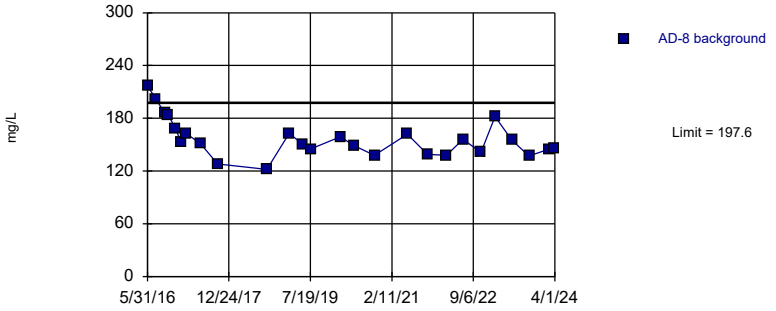
Background Data Summary: Mean=127.6, Std. Dev.=69.88, n=24. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9231, critical = 0.884. Kappa = 1.846 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Assumes 1 future value.

Constituent: Sulfate, total Analysis Run 12/12/2025 4:36 PM View: Intrawell
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Prediction Limit

Intrawell Parametric, AD-8



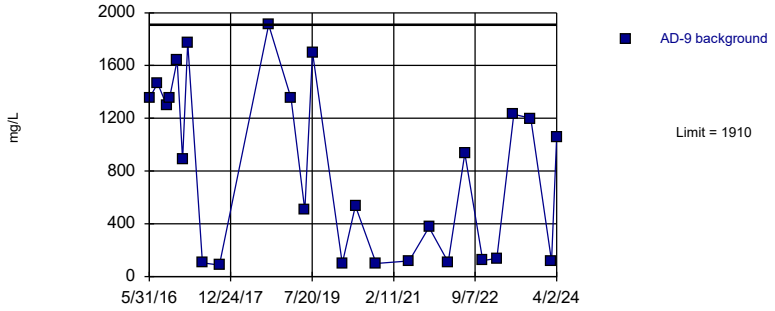
Background Data Summary: Mean=156.9, Std. Dev.=22.26, n=26. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9244, critical = 0.891. Kappa = 1.827 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Assumes 1 future value.

Constituent: Sulfate, total Analysis Run 12/12/2025 4:36 PM View: Intrawell
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Prediction Limit

Intrawell Non-parametric, AD-9



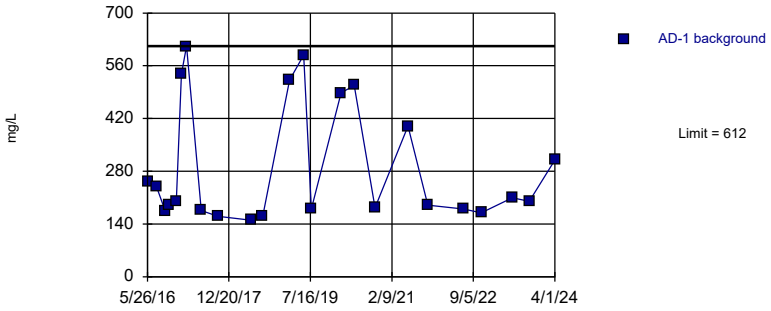
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 26 background values. Well-constituent pair annual alpha = 0.005327. Individual comparison alpha = 0.002667 (1 of 2). Assumes 1 future value.

Constituent: Sulfate, total Analysis Run 12/12/2025 4:36 PM View: Intrawell
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Prediction Limit

Intrawell Non-parametric, AD-1 (bg)



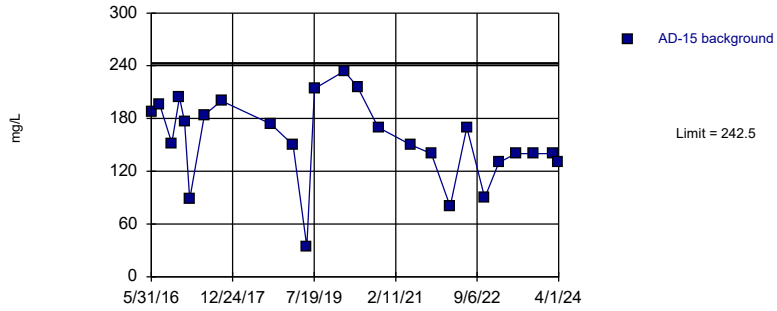
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 24 background values. Well-constituent pair annual alpha = 0.006238. Individual comparison alpha = 0.003124 (1 of 2). Assumes 1 future value.

Constituent: Total Dissolved Solids Analysis Run 12/12/2025 4:36 PM View: Intrawell
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Prediction Limit

Intrawell Parametric, AD-15



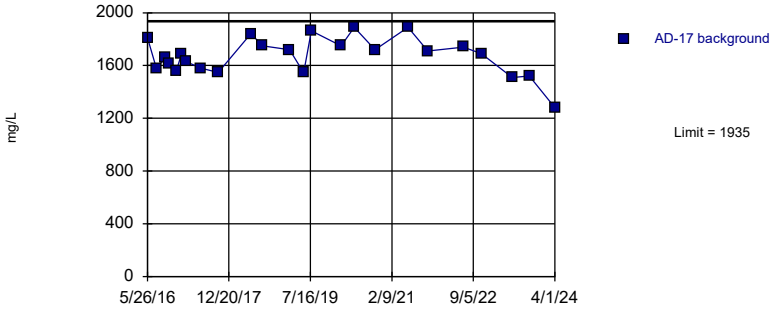
Background Data Summary: Mean=155.6, Std. Dev.=47.4, n=25. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9573, critical = 0.888. Kappa = 1.834 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Assumes 1 future value.

Constituent: Total Dissolved Solids Analysis Run 12/12/2025 4:36 PM View: Intrawell
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Prediction Limit

Intrawell Parametric, AD-17 (bg)



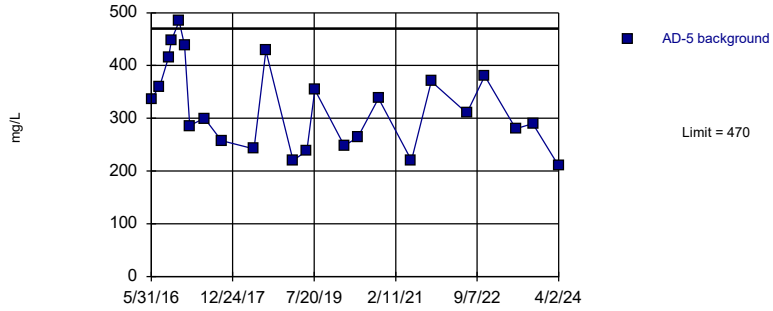
Background Data Summary: Mean=1670, Std. Dev.=143.4, n=24. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9531, critical = 0.884. Kappa = 1.846 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Assumes 1 future value.

Constituent: Total Dissolved Solids Analysis Run 12/12/2025 4:36 PM View: Intrawell
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Prediction Limit

Intrawell Parametric, AD-5 (bg)

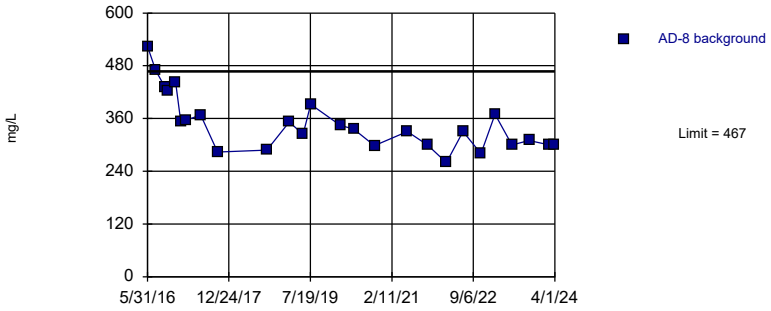


Background Data Summary: Mean=321.6, Std. Dev.=80.41, n=24. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9464, critical = 0.884. Kappa = 1.846 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Assumes 1 future value.

Constituent: Total Dissolved Solids Analysis Run 12/12/2025 4:36 PM View: Intrawell
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Prediction Limit

Intrawell Parametric, AD-8



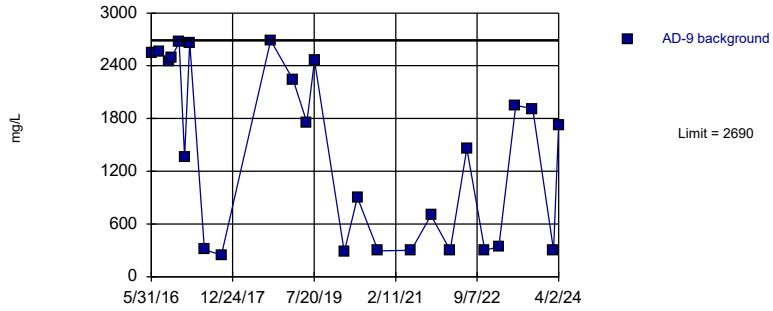
Background Data Summary: Mean=348.7, Std. Dev.=64.75, n=26. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9081, critical = 0.891. Kappa = 1.827 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Assumes 1 future value.

Constituent: Total Dissolved Solids Analysis Run 12/12/2025 4:36 PM View: Intrawell
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Prediction Limit

Intrawell Non-parametric, AD-9



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 26 background values. Well-constituent pair annual alpha = 0.005327. Individual comparison alpha = 0.002667 (1 of 2). Assumes 1 future value.

Constituent: Total Dissolved Solids Analysis Run 12/12/2025 4:36 PM View: Intrawell
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

FIGURE E
Upgradient Trend Tests – Appendix III

Appendix III - Upgradient Wells Trend Tests - Significant Results

Welsh PBAP Client: Geosyntec Data: Welsh PBAP Printed 11/14/2025, 1:14 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron, total (mg/L)	**AD-1 (bg)**	**0.06469**	**252**	**131**	**Yes**	**28**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH, field (SU)	**AD-17 (bg)**	**-0.07709**	**-166**	**-131**	**Yes**	**28**	**0**	**n/a**	**n/a**	**0.01**	**NP**

Appendix III - Upgradient Wells Trend Tests - All Results

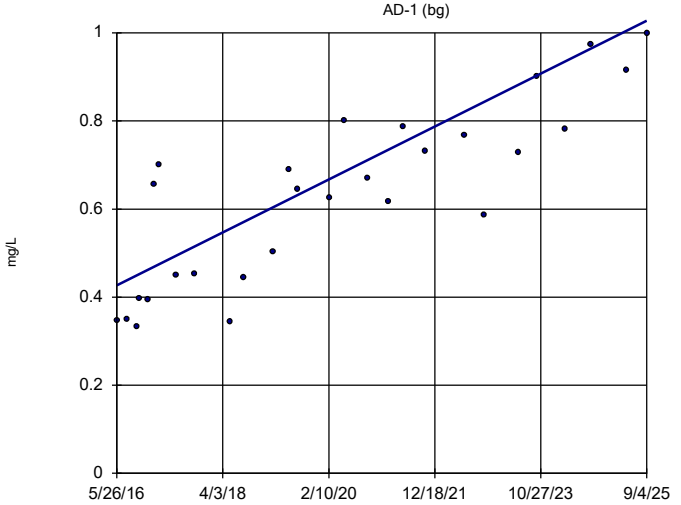
Welsh PBAP Client: Geosyntec Data: Welsh PBAP Printed 11/14/2025, 1:14 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron, total (mg/L)	**AD-1 (bg)**	**0.06469**	**252**	**131**	**Yes**	**28**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron, total (mg/L)	AD-17 (bg)	-0.002111	-102	-131	No	28	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	AD-5 (bg)	-0.0002344	-57	-131	No	28	0	n/a	n/a	0.01	NP
pH, field (SU)	AD-1 (bg)	-0.056	-36	-131	No	28	0	n/a	n/a	0.01	NP
pH, field (SU)	**AD-17 (bg)**	**-0.07709**	**-166**	**-131**	**Yes**	**28**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH, field (SU)	AD-5 (bg)	0.006518	4	131	No	28	0	n/a	n/a	0.01	NP

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Sen's Slope Estimator

AD-1 (bg)



n = 28

Slope = 0.06469 units per year.

Mann-Kendall statistic = 252
critical = 131

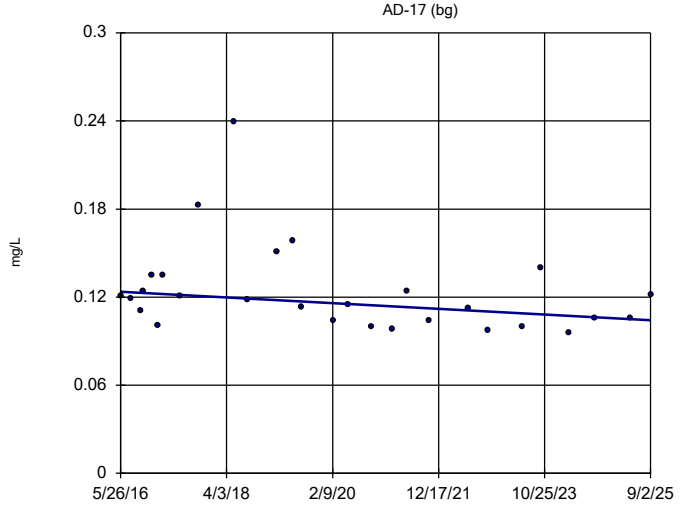
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron, total Analysis Run 11/14/2025 1:12 PM View: Upgradient Well Trend Test
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Sen's Slope Estimator

AD-17 (bg)



n = 28

Slope = -0.002111 units per year.

Mann-Kendall statistic = -102
critical = -131

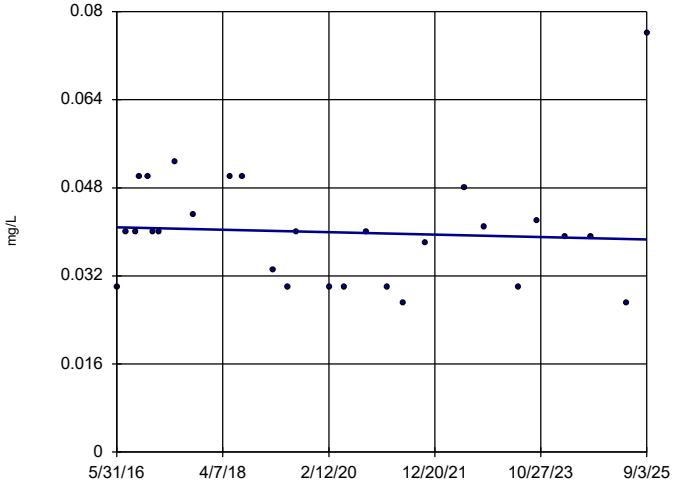
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron, total Analysis Run 11/14/2025 1:12 PM View: Upgradient Well Trend Test
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Sen's Slope Estimator

AD-5 (bg)



n = 28

Slope = -0.0002344 units per year.

Mann-Kendall statistic = -57
critical = -131

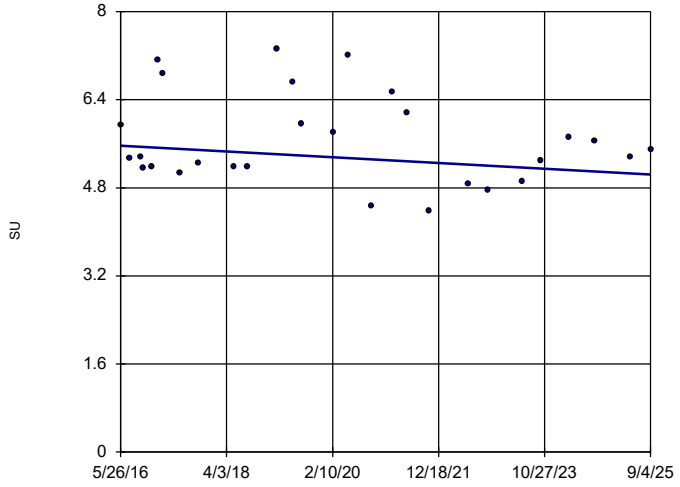
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron, total Analysis Run 11/14/2025 1:12 PM View: Upgradient Well Trend Test
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Sen's Slope Estimator

AD-1 (bg)



n = 28

Slope = -0.056 units per year.

Mann-Kendall statistic = -36
critical = -131

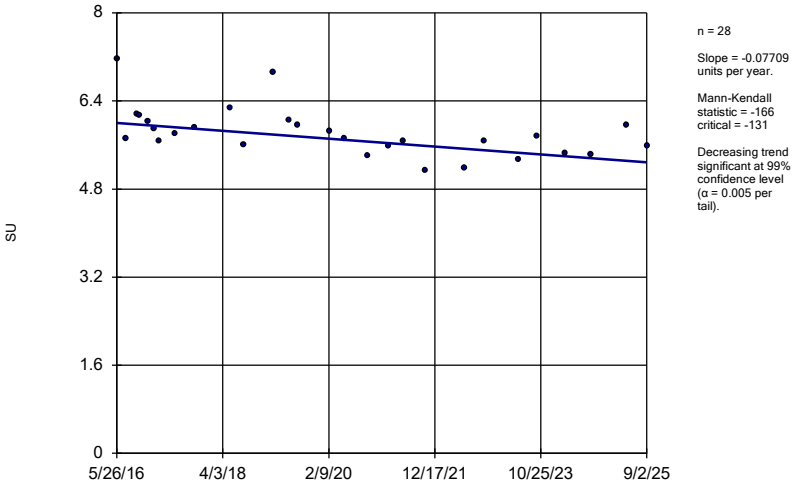
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, field Analysis Run 11/14/2025 1:12 PM View: Upgradient Well Trend Test
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Sen's Slope Estimator

AD-17 (bg)



n = 28

Slope = -0.07709 units per year.

Mann-Kendall statistic = -166
critical = -131

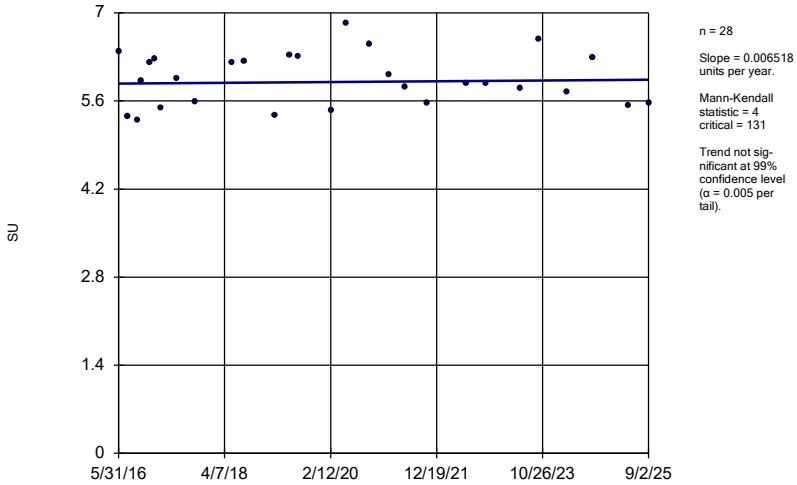
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, field Analysis Run 11/14/2025 1:12 PM View: Upgradient Well Trend Test
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Sen's Slope Estimator

AD-5 (bg)



n = 28

Slope = 0.006518 units per year.

Mann-Kendall statistic = 4
critical = 131

Trend not sig-nificant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, field Analysis Run 11/14/2025 1:12 PM View: Upgradient Well Trend Test
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

FIGURE F

Interwell PLs

Interwell Prediction Limits - All Results

Welsh PBAP Client: Geosyntec Data: Welsh PBAP Printed 11/17/2025, 10:20 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron, total (mg/L)	n/a	1	n/a	n/a	3 future	n/a	84	n/a	n/a	0	n/a	n/a	0.0002752	NP Inter (normality) 1 of 2
pH, field (SU)	n/a	6.813	4.801	n/a	3 future	n/a	84	5.807	0.596	0	None	No	0.001253	Param Inter 1 of 2

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Prediction Limit

Interwell Non-parametric



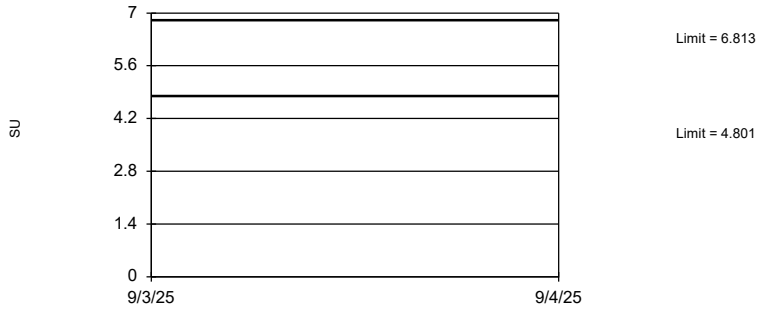
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 84 background values. Annual per-constituent alpha = 0.00165. Individual comparison alpha = 0.0002752 (1 of 2). Assumes 3 future values.

Constituent: Boron, total Analysis Run 11/17/2025 10:19 AM View: Interwell
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Prediction Limit

Interwell Parametric



Background Data Summary: Mean=5.807, Std. Dev.=0.596, n=84. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9774, critical = 0.96. Kappa = 1.688 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001253. Assumes 3 future values.

Constituent: pH, field Analysis Run 11/17/2025 10:19 AM View: Interwell
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

FIGURE G
Upgradient Trend Tests – Appendix IV

Appendix IV - Upgradient Wells Trend Tests - Significant Results

Welsh PBAP Client: Geosyntec Data: Welsh PBAP Printed 11/18/2025, 3:45 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Antimony, total (mg/L)	**AD-1 (bg)**	**-0.00005349**	**-193**	**-96**	**Yes**	**27**	**33.33**	**n/a**	**n/a**	**0.05**	**NP**
Arsenic, total (mg/L)	**AD-1 (bg)**	**-0.0001635**	**-230**	**-96**	**Yes**	**27**	**22.22**	**n/a**	**n/a**	**0.05**	**NP**
Arsenic, total (mg/L)	**AD-17 (bg)**	**-0.0003244**	**-220**	**-96**	**Yes**	**27**	**29.63**	**n/a**	**n/a**	**0.05**	**NP**
Barium, total (mg/L)	**AD-17 (bg)**	**-0.0007949**	**-121**	**-96**	**Yes**	**27**	**0**	**n/a**	**n/a**	**0.05**	**NP**
Beryllium, total (mg/L)	**AD-1 (bg)**	**0.0001086**	**163**	**96**	**Yes**	**27**	**3.704**	**n/a**	**n/a**	**0.05**	**NP**
Beryllium, total (mg/L)	**AD-5 (bg)**	**-0.000006707**	**-102**	**-96**	**Yes**	**27**	**7.407**	**n/a**	**n/a**	**0.05**	**NP**
Cadmium, total (mg/L)	**AD-17 (bg)**	**-0.00009435**	**-206**	**-85**	**Yes**	**25**	**12**	**n/a**	**n/a**	**0.05**	**NP**
Cadmium, total (mg/L)	**AD-5 (bg)**	**-0.000001258**	**-126**	**-96**	**Yes**	**27**	**55.56**	**n/a**	**n/a**	**0.05**	**NP**
Cobalt, total (mg/L)	**AD-1 (bg)**	**0.000234**	**145**	**96**	**Yes**	**27**	**0**	**n/a**	**n/a**	**0.05**	**NP**
Cobalt, total (mg/L)	**AD-17 (bg)**	**-0.002986**	**-148**	**-96**	**Yes**	**27**	**0**	**n/a**	**n/a**	**0.05**	**NP**
Fluoride, total (mg/L)	**AD-1 (bg)**	**0.03997**	**215**	**101**	**Yes**	**28**	**39.29**	**n/a**	**n/a**	**0.05**	**NP**
Lithium, total (mg/L)	**AD-17 (bg)**	**-0.01248**	**-177**	**-96**	**Yes**	**27**	**0**	**n/a**	**n/a**	**0.05**	**NP**
Mercury, total (mg/L)	**AD-1 (bg)**	**-7.0e-7**	**-187**	**-96**	**Yes**	**27**	**37.04**	**n/a**	**n/a**	**0.05**	**NP**
Mercury, total (mg/L)	**AD-17 (bg)**	**-2.5e-7**	**-150**	**-96**	**Yes**	**27**	**62.96**	**n/a**	**n/a**	**0.05**	**NP**
Selenium, total (mg/L)	**AD-1 (bg)**	**0.0009955**	**211**	**96**	**Yes**	**27**	**3.704**	**n/a**	**n/a**	**0.05**	**NP**
Selenium, total (mg/L)	**AD-5 (bg)**	**-0.00001023**	**-125**	**-96**	**Yes**	**27**	**48.15**	**n/a**	**n/a**	**0.05**	**NP**
Thallium, total (mg/L)	**AD-1 (bg)**	**-0.00001119**	**-148**	**-96**	**Yes**	**27**	**62.96**	**n/a**	**n/a**	**0.05**	**NP**

Appendix IV - Upgradient Wells Trend Tests - All Results

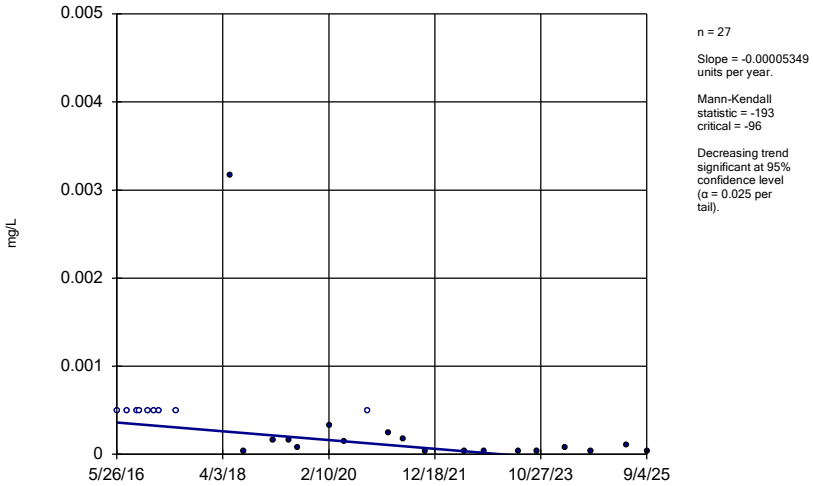
Welsh PBAP Client: Geosyntec Data: Welsh PBAP Printed 11/18/2025, 3:45 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Antimony, total (mg/L)	**AD-1 (bg)**	**-0.00005349**	**-193**	**-96**	**Yes**	**27**	**33.33**	**n/a**	**n/a**	**0.05**	**NP**
Antimony, total (mg/L)	AD-17 (bg)	0	-90	-96	No	27	74.07	n/a	n/a	0.05	NP
Antimony, total (mg/L)	AD-5 (bg)	0	-68	-96	No	27	74.07	n/a	n/a	0.05	NP
Arsenic, total (mg/L)	**AD-1 (bg)**	**-0.0001635**	**-230**	**-96**	**Yes**	**27**	**22.22**	**n/a**	**n/a**	**0.05**	**NP**
Arsenic, total (mg/L)	**AD-17 (bg)**	**-0.0003244**	**-220**	**-96**	**Yes**	**27**	**29.63**	**n/a**	**n/a**	**0.05**	**NP**
Arsenic, total (mg/L)	AD-5 (bg)	-0.0001661	-82	-96	No	27	18.52	n/a	n/a	0.05	NP
Barium, total (mg/L)	AD-1 (bg)	-0.005818	-80	-96	No	27	0	n/a	n/a	0.05	NP
Barium, total (mg/L)	**AD-17 (bg)**	**-0.0007949**	**-121**	**-96**	**Yes**	**27**	**0**	**n/a**	**n/a**	**0.05**	**NP**
Barium, total (mg/L)	AD-5 (bg)	-0.001278	-51	-96	No	27	0	n/a	n/a	0.05	NP
Beryllium, total (mg/L)	**AD-1 (bg)**	**0.0001086**	**163**	**96**	**Yes**	**27**	**3.704**	**n/a**	**n/a**	**0.05**	**NP**
Beryllium, total (mg/L)	AD-17 (bg)	-0.000008116	-82	-96	No	27	11.11	n/a	n/a	0.05	NP
Beryllium, total (mg/L)	**AD-5 (bg)**	**-0.000006707**	**-102**	**-96**	**Yes**	**27**	**7.407**	**n/a**	**n/a**	**0.05**	**NP**
Cadmium, total (mg/L)	AD-1 (bg)	-0.000007749	-65	-96	No	27	29.63	n/a	n/a	0.05	NP
Cadmium, total (mg/L)	**AD-17 (bg)**	**-0.00009435**	**-206**	**-85**	**Yes**	**25**	**12**	**n/a**	**n/a**	**0.05**	**NP**
Cadmium, total (mg/L)	**AD-5 (bg)**	**-0.000001258**	**-126**	**-96**	**Yes**	**27**	**55.56**	**n/a**	**n/a**	**0.05**	**NP**
Chromium, total (mg/L)	AD-1 (bg)	-0.00001774	-38	-96	No	27	18.52	n/a	n/a	0.05	NP
Chromium, total (mg/L)	AD-17 (bg)	-0.00005159	-69	-90	No	26	7.692	n/a	n/a	0.05	NP
Chromium, total (mg/L)	AD-5 (bg)	-0.0000176	-60	-96	No	27	7.407	n/a	n/a	0.05	NP
Cobalt, total (mg/L)	**AD-1 (bg)**	**0.000234**	**145**	**96**	**Yes**	**27**	**0**	**n/a**	**n/a**	**0.05**	**NP**
Cobalt, total (mg/L)	**AD-17 (bg)**	**-0.002986**	**-148**	**-96**	**Yes**	**27**	**0**	**n/a**	**n/a**	**0.05**	**NP**
Cobalt, total (mg/L)	AD-5 (bg)	-0.0002966	-76	-96	No	27	0	n/a	n/a	0.05	NP
Combined Radium 226 + 228 (pCi/L)	AD-1 (bg)	0.1619	91	96	No	27	0	n/a	n/a	0.05	NP
Combined Radium 226 + 228 (pCi/L)	AD-17 (bg)	0.02619	17	96	No	27	0	n/a	n/a	0.05	NP
Combined Radium 226 + 228 (pCi/L)	AD-5 (bg)	-0.01082	-5	-96	No	27	0	n/a	n/a	0.05	NP
Fluoride, total (mg/L)	**AD-1 (bg)**	**0.03997**	**215**	**101**	**Yes**	**28**	**39.29**	**n/a**	**n/a**	**0.05**	**NP**
Fluoride, total (mg/L)	AD-17 (bg)	-0.007393	-54	-101	No	28	32.14	n/a	n/a	0.05	NP
Fluoride, total (mg/L)	AD-5 (bg)	0.01429	81	101	No	28	32.14	n/a	n/a	0.05	NP
Lead, total (mg/L)	AD-1 (bg)	0.000001317	41	85	No	25	32	n/a	n/a	0.05	NP
Lead, total (mg/L)	AD-17 (bg)	-0.000003456	-79	-90	No	26	42.31	n/a	n/a	0.05	NP
Lead, total (mg/L)	AD-5 (bg)	0	-54	-96	No	27	66.67	n/a	n/a	0.05	NP
Lithium, total (mg/L)	AD-1 (bg)	0.000007717	5	96	No	27	3.704	n/a	n/a	0.05	NP
Lithium, total (mg/L)	**AD-17 (bg)**	**-0.01248**	**-177**	**-96**	**Yes**	**27**	**0**	**n/a**	**n/a**	**0.05**	**NP**
Lithium, total (mg/L)	AD-5 (bg)	-0.00686	-91	-96	No	27	0	n/a	n/a	0.05	NP
Mercury, total (mg/L)	**AD-1 (bg)**	**-7.0e-7**	**-187**	**-96**	**Yes**	**27**	**37.04**	**n/a**	**n/a**	**0.05**	**NP**
Mercury, total (mg/L)	**AD-17 (bg)**	**-2.5e-7**	**-150**	**-96**	**Yes**	**27**	**62.96**	**n/a**	**n/a**	**0.05**	**NP**
Mercury, total (mg/L)	AD-5 (bg)	0	-76	-96	No	27	85.19	n/a	n/a	0.05	NP
Molybdenum, total (mg/L)	AD-1 (bg)	0	-28	-90	No	26	57.69	n/a	n/a	0.05	NP
Molybdenum, total (mg/L)	AD-17 (bg)	0	-73	-96	No	27	70.37	n/a	n/a	0.05	NP
Molybdenum, total (mg/L)	AD-5 (bg)	0	-70	-96	No	27	74.07	n/a	n/a	0.05	NP
Selenium, total (mg/L)	**AD-1 (bg)**	**0.0009955**	**211**	**96**	**Yes**	**27**	**3.704**	**n/a**	**n/a**	**0.05**	**NP**
Selenium, total (mg/L)	AD-17 (bg)	-3.8e-12	-92	-96	No	27	51.85	n/a	n/a	0.05	NP
Selenium, total (mg/L)	**AD-5 (bg)**	**-0.00001023**	**-125**	**-96**	**Yes**	**27**	**48.15**	**n/a**	**n/a**	**0.05**	**NP**
Thallium, total (mg/L)	**AD-1 (bg)**	**-0.00001119**	**-148**	**-96**	**Yes**	**27**	**62.96**	**n/a**	**n/a**	**0.05**	**NP**
Thallium, total (mg/L)	AD-17 (bg)	0	-29	-96	No	27	88.89	n/a	n/a	0.05	NP
Thallium, total (mg/L)	AD-5 (bg)	0	-33	-96	No	27	92.59	n/a	n/a	0.05	NP

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Hollow symbols indicate censored values.

Sen's Slope Estimator

AD-1 (bg)



n = 27

Slope = -0.00005349 units per year.

Mann-Kendall statistic = -193
critical = -96

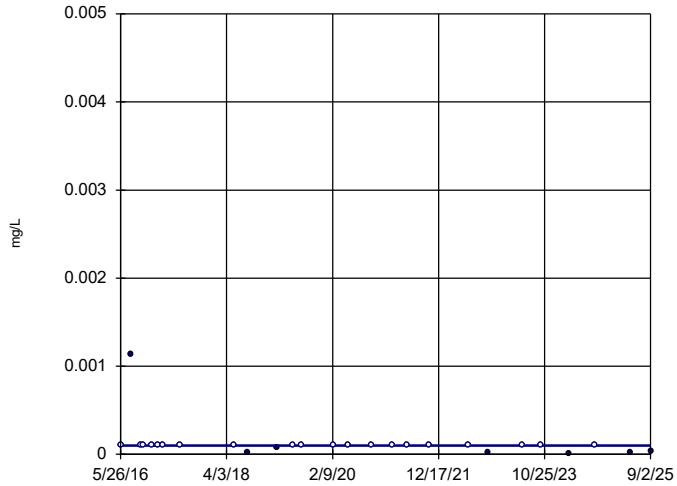
Decreasing trend significant at 95% confidence level (α = 0.025 per tail).

Constituent: Antimony, total Analysis Run 11/18/2025 3:43 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Hollow symbols indicate censored values.

Sen's Slope Estimator

AD-17 (bg)



n = 27

Slope = 0 units per year.

Mann-Kendall statistic = -90
critical = -96

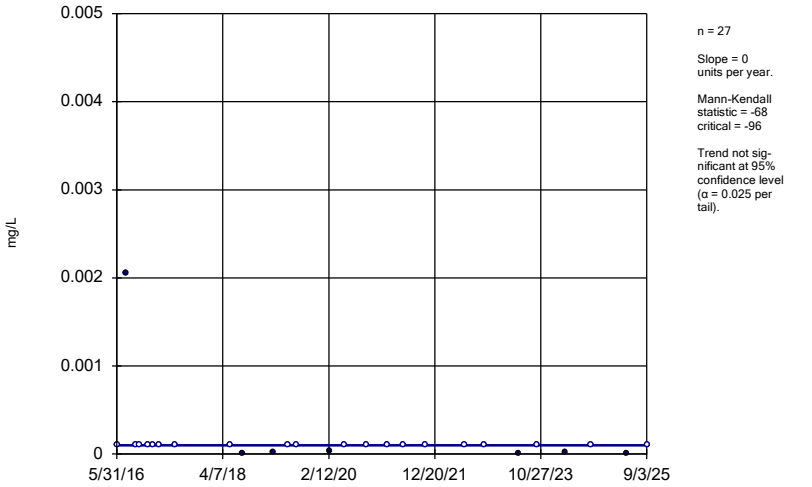
Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Antimony, total Analysis Run 11/18/2025 3:43 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Hollow symbols indicate censored values.

Sen's Slope Estimator

AD-5 (bg)



n = 27

Slope = 0 units per year.

Mann-Kendall statistic = -68
critical = -96

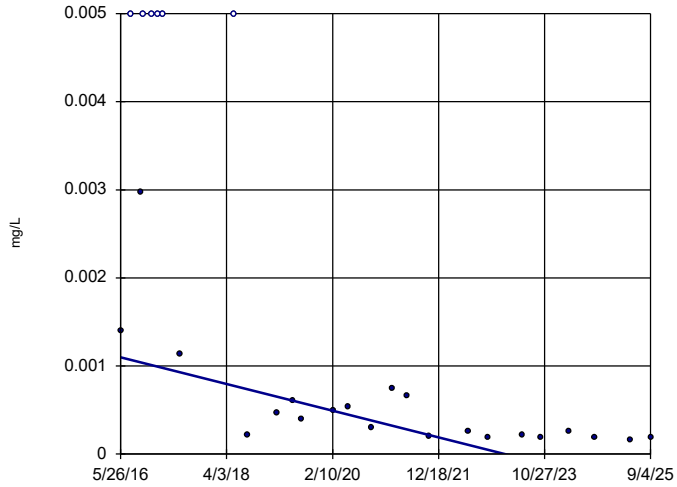
Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Antimony, total Analysis Run 11/18/2025 3:43 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Hollow symbols indicate censored values.

Sen's Slope Estimator

AD-1 (bg)



n = 27

Slope = -0.0001635 units per year.

Mann-Kendall statistic = -230
critical = -96

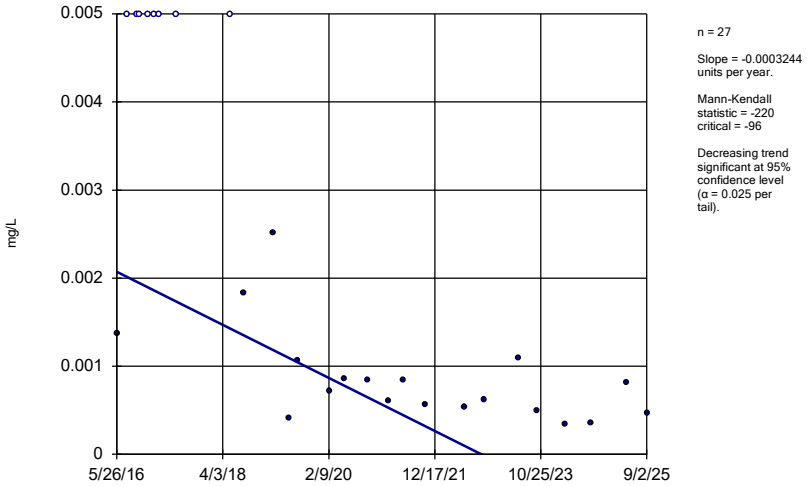
Decreasing trend significant at 95% confidence level (α = 0.025 per tail).

Constituent: Arsenic, total Analysis Run 11/18/2025 3:43 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Hollow symbols indicate censored values.

Sen's Slope Estimator

AD-17 (bg)



n = 27

Slope = -0.0003244 units per year.

Mann-Kendall statistic = -220
critical = -96

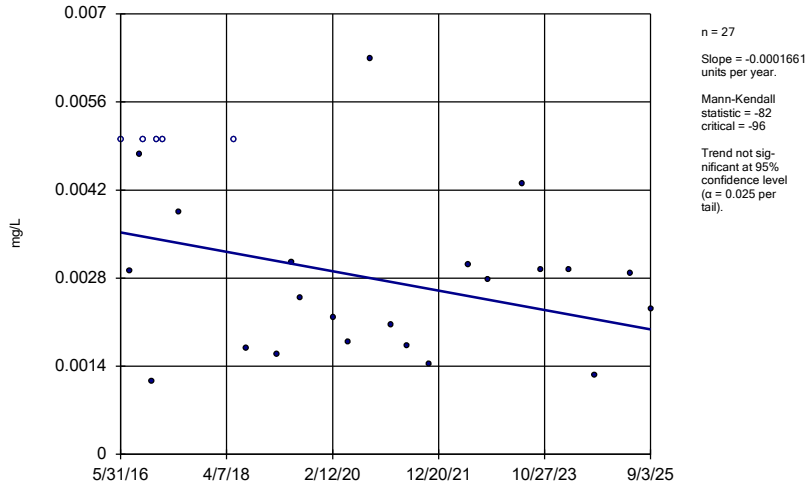
Decreasing trend significant at 95% confidence level (α = 0.025 per tail).

Constituent: Arsenic, total Analysis Run 11/18/2025 3:43 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Hollow symbols indicate censored values.

Sen's Slope Estimator

AD-5 (bg)



n = 27

Slope = -0.0001661 units per year.

Mann-Kendall statistic = -82
critical = -96

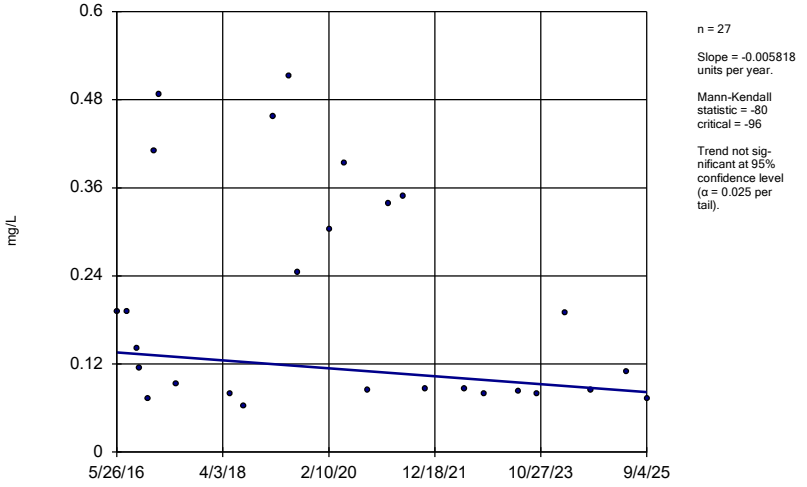
Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Arsenic, total Analysis Run 11/18/2025 3:43 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Sen's Slope Estimator

AD-1 (bg)



n = 27

Slope = -0.005818 units per year.

Mann-Kendall statistic = -80
critical = -96

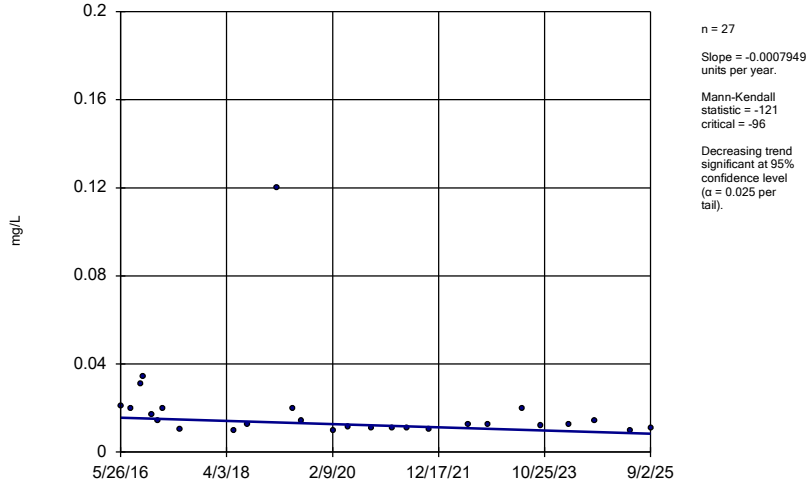
Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Barium, total Analysis Run 11/18/2025 3:43 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

AD-17 (bg)



n = 27

Slope = -0.0007949 units per year.

Mann-Kendall statistic = -121
critical = -96

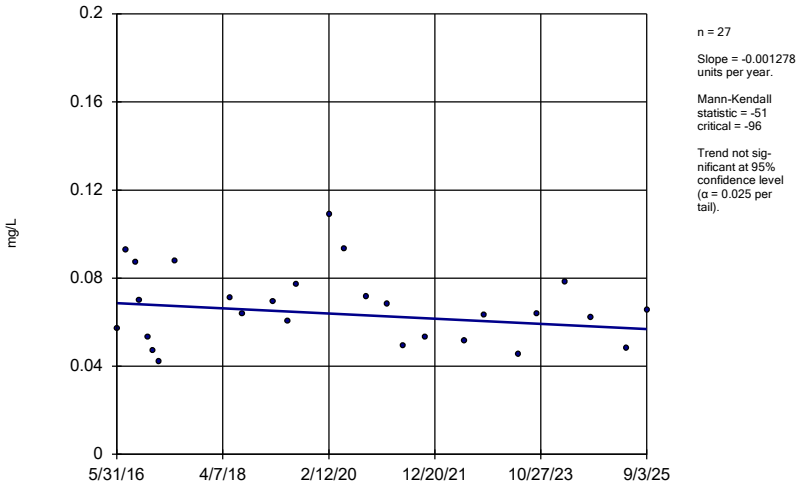
Decreasing trend significant at 95% confidence level (α = 0.025 per tail).

Constituent: Barium, total Analysis Run 11/18/2025 3:43 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Sen's Slope Estimator

AD-5 (bg)



n = 27

Slope = -0.001278 units per year.

Mann-Kendall statistic = -51 critical = -96

Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Barium, total Analysis Run 11/18/2025 3:43 PM View: UTLs

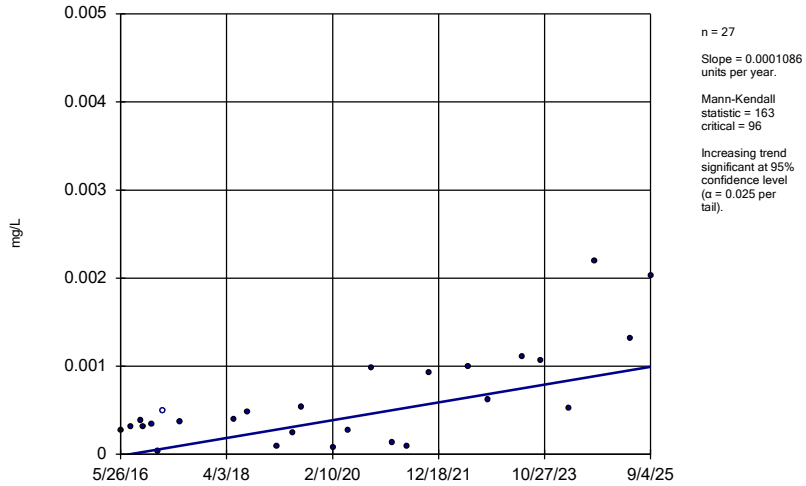
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

AD-1 (bg)



n = 27

Slope = 0.0001086 units per year.

Mann-Kendall statistic = 163 critical = 96

Increasing trend significant at 95% confidence level (α = 0.025 per tail).

Constituent: Beryllium, total Analysis Run 11/18/2025 3:43 PM View: UTLs

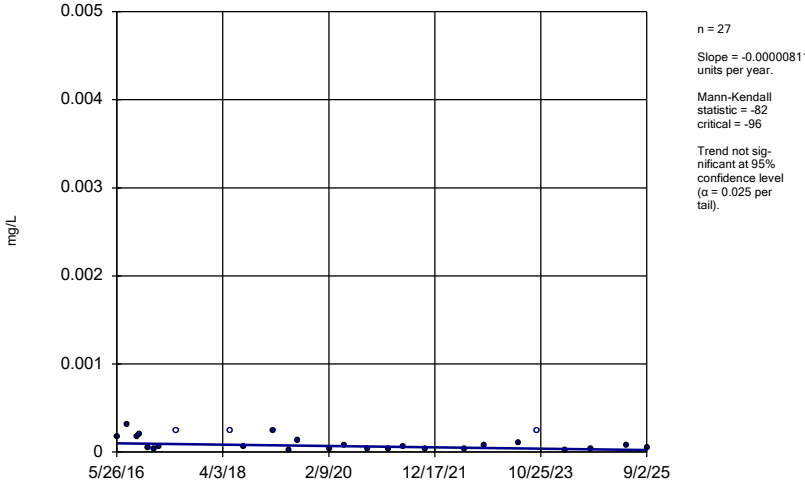
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

AD-17 (bg)



n = 27

Slope = -0.000008116 units per year.

Mann-Kendall statistic = -82 critical = -96

Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Beryllium, total Analysis Run 11/18/2025 3:43 PM View: UTLs

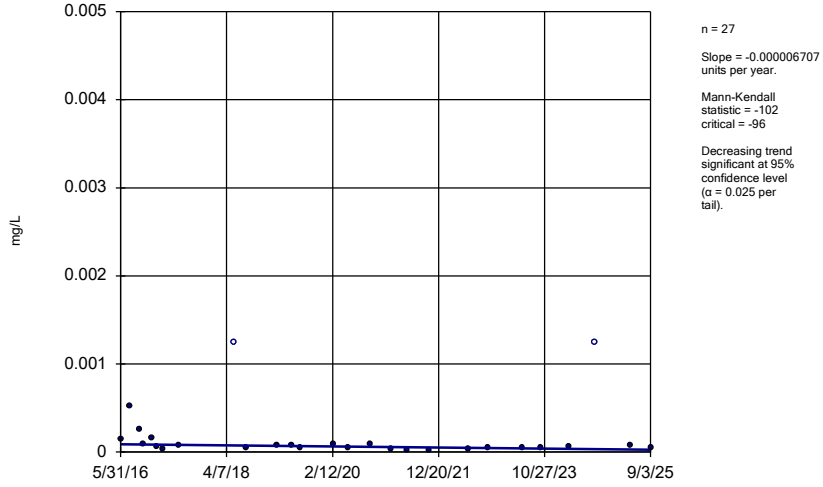
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

AD-5 (bg)



n = 27

Slope = -0.000006707 units per year.

Mann-Kendall statistic = -102 critical = -96

Decreasing trend significant at 95% confidence level (α = 0.025 per tail).

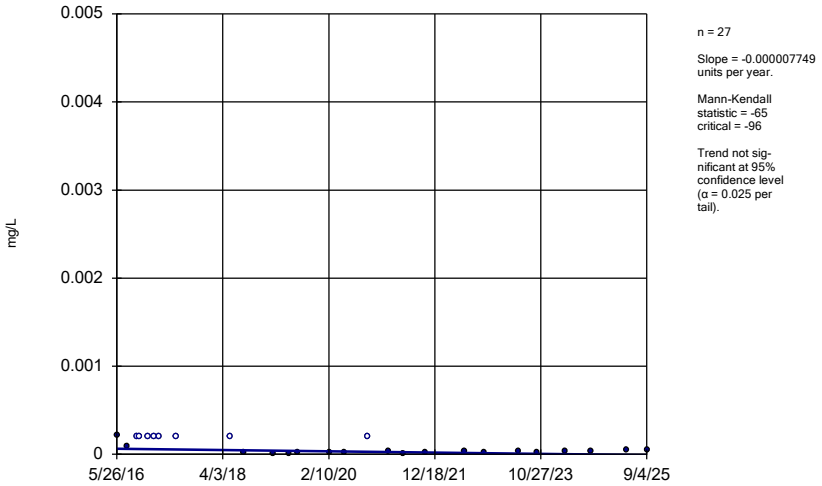
Constituent: Beryllium, total Analysis Run 11/18/2025 3:43 PM View: UTLs

Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

AD-1 (bg)



n = 27

Slope = -0.000007749 units per year.

Mann-Kendall statistic = -65
critical = -96

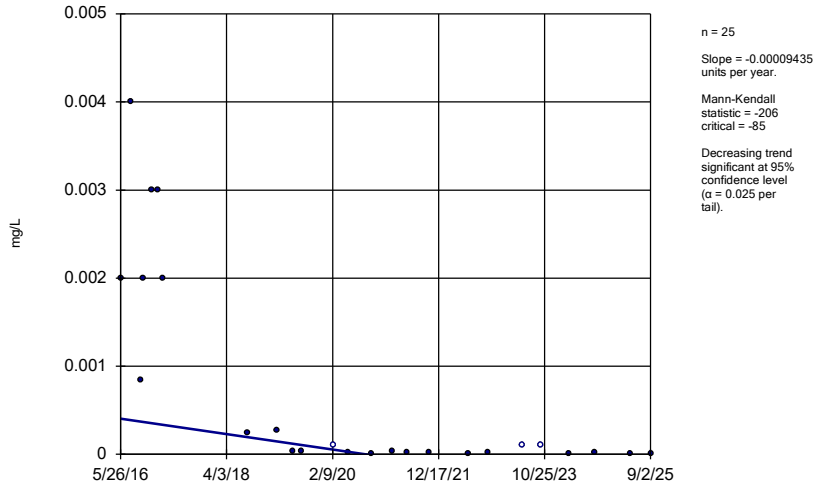
Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Cadmium, total Analysis Run 11/18/2025 3:43 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

AD-17 (bg)



n = 25

Slope = -0.00009435 units per year.

Mann-Kendall statistic = -206
critical = -85

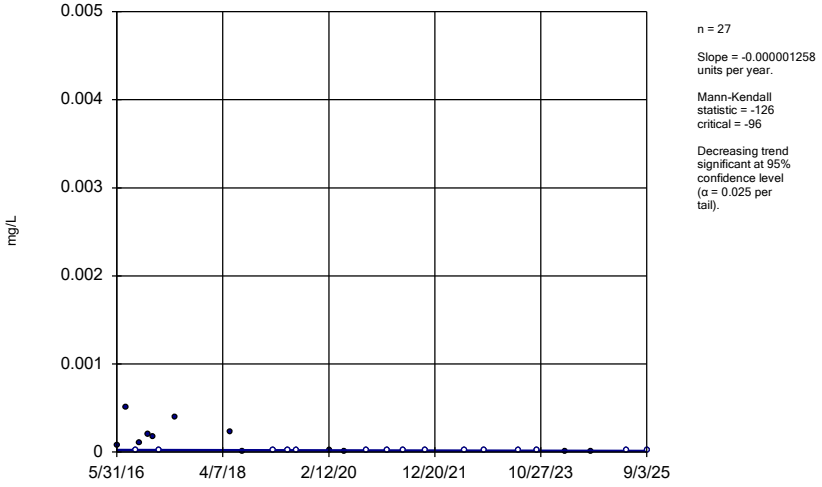
Decreasing trend significant at 95% confidence level (α = 0.025 per tail).

Constituent: Cadmium, total Analysis Run 11/18/2025 3:43 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

AD-5 (bg)



n = 27

Slope = -0.000001258 units per year.

Mann-Kendall statistic = -126
critical = -96

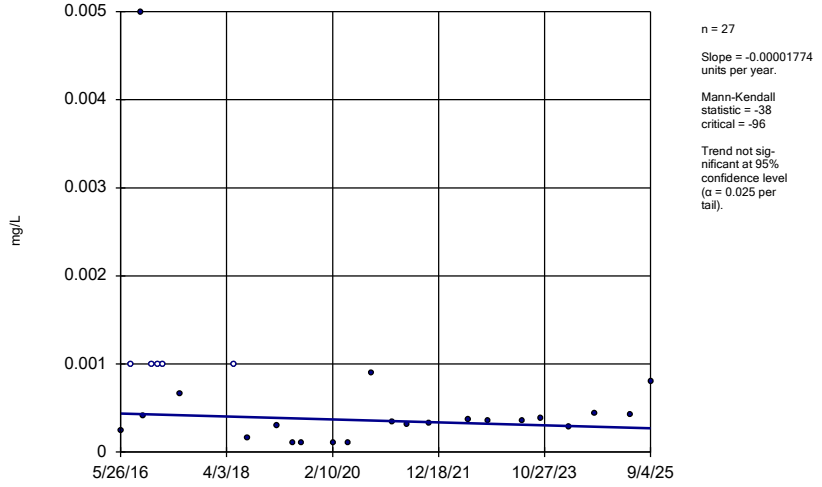
Decreasing trend significant at 95% confidence level (α = 0.025 per tail).

Constituent: Cadmium, total Analysis Run 11/18/2025 3:43 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

AD-1 (bg)



n = 27

Slope = -0.00001774 units per year.

Mann-Kendall statistic = -38
critical = -96

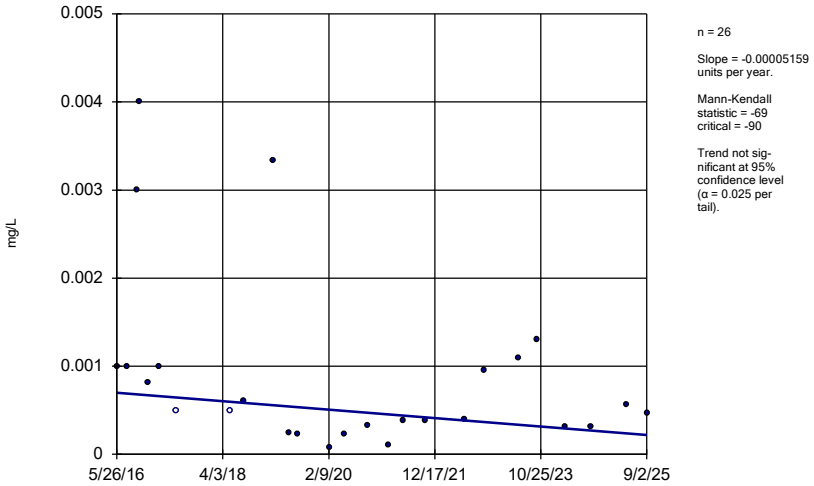
Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Chromium, total Analysis Run 11/18/2025 3:43 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

AD-17 (bg)



n = 26

Slope = -0.00005159 units per year.

Mann-Kendall statistic = -69
critical = -90

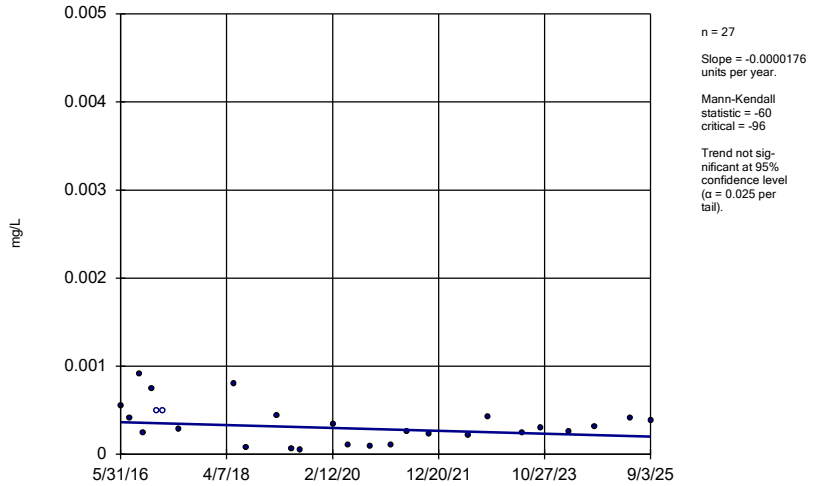
Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Chromium, total Analysis Run 11/18/2025 3:43 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

AD-5 (bg)



n = 27

Slope = -0.0000176 units per year.

Mann-Kendall statistic = -60
critical = -96

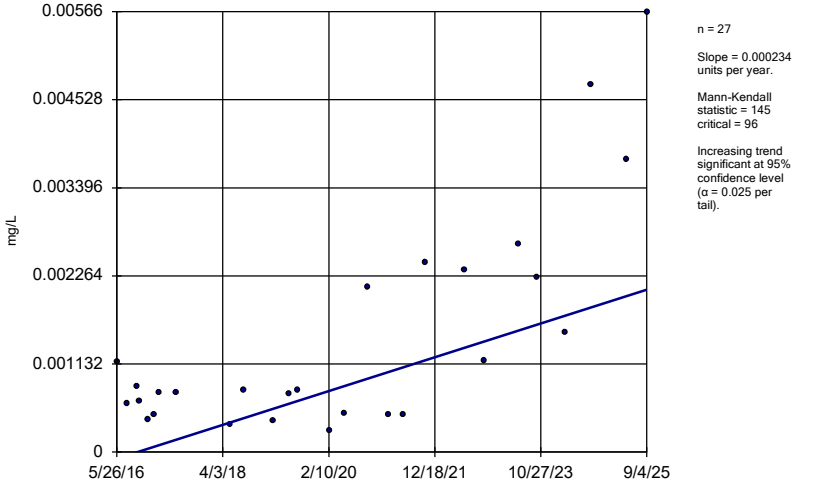
Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Chromium, total Analysis Run 11/18/2025 3:43 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

AD-1 (bg)



n = 27

Slope = 0.000234 units per year.

Mann-Kendall statistic = 145
critical = 96

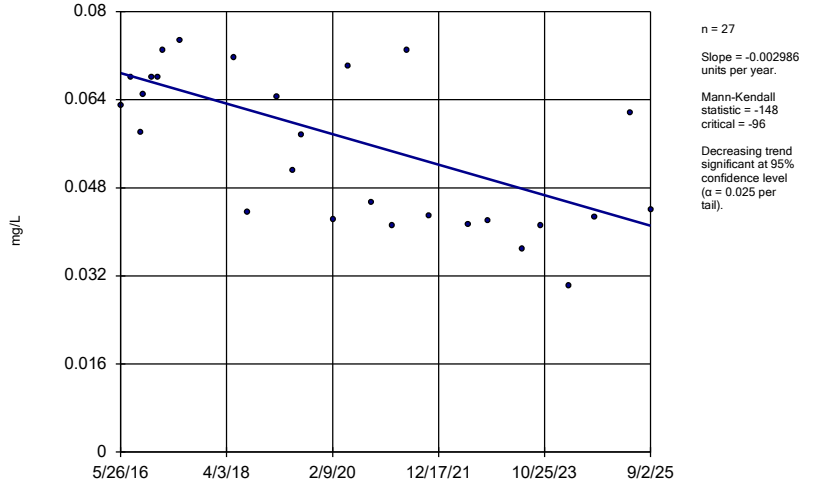
Increasing trend significant at 95% confidence level (α = 0.025 per tail).

Constituent: Cobalt, total Analysis Run 11/18/2025 3:43 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

AD-17 (bg)



n = 27

Slope = -0.002986 units per year.

Mann-Kendall statistic = -148
critical = -96

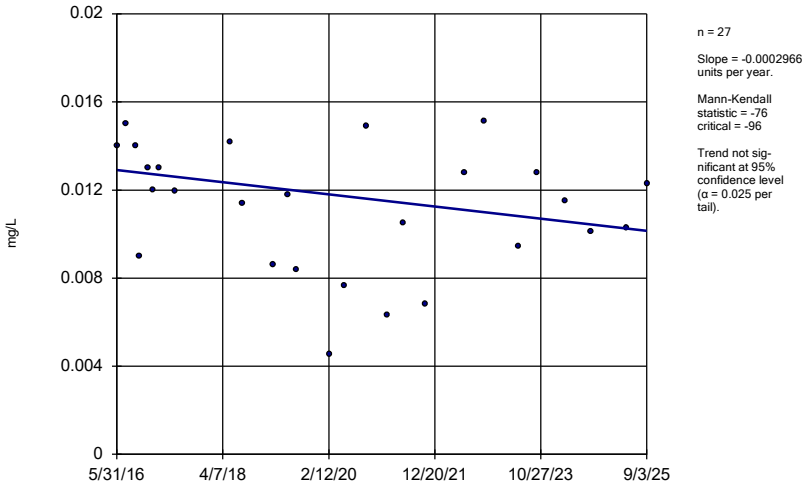
Decreasing trend significant at 95% confidence level (α = 0.025 per tail).

Constituent: Cobalt, total Analysis Run 11/18/2025 3:43 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Sen's Slope Estimator

AD-5 (bg)



n = 27

Slope = -0.0002966 units per year.

Mann-Kendall statistic = -76
critical = -96

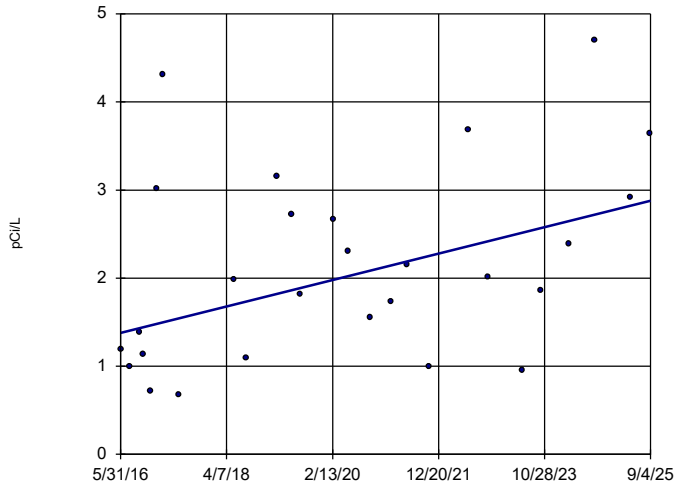
Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Cobalt, total Analysis Run 11/18/2025 3:43 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Sen's Slope Estimator

AD-1 (bg)



n = 27

Slope = 0.1619 units per year.

Mann-Kendall statistic = 91
critical = 96

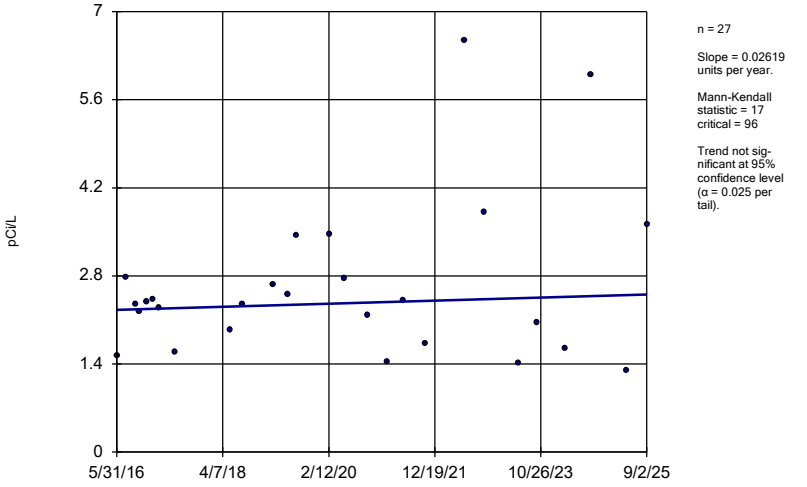
Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Combined Radium 226 + 228 Analysis Run 11/18/2025 3:43 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

AD-17 (bg)



n = 27

Slope = 0.02619 units per year.

Mann-Kendall statistic = 17
critical = 96

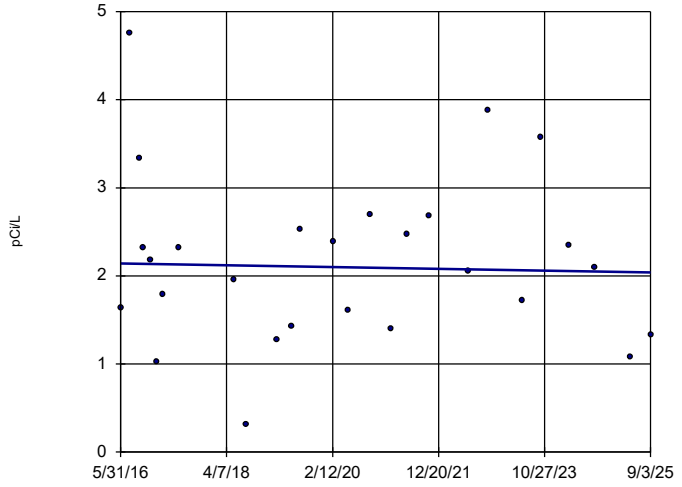
Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Combined Radium 226 + 228 Analysis Run 11/18/2025 3:43 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

AD-5 (bg)



n = 27

Slope = -0.01082 units per year.

Mann-Kendall statistic = -5
critical = -96

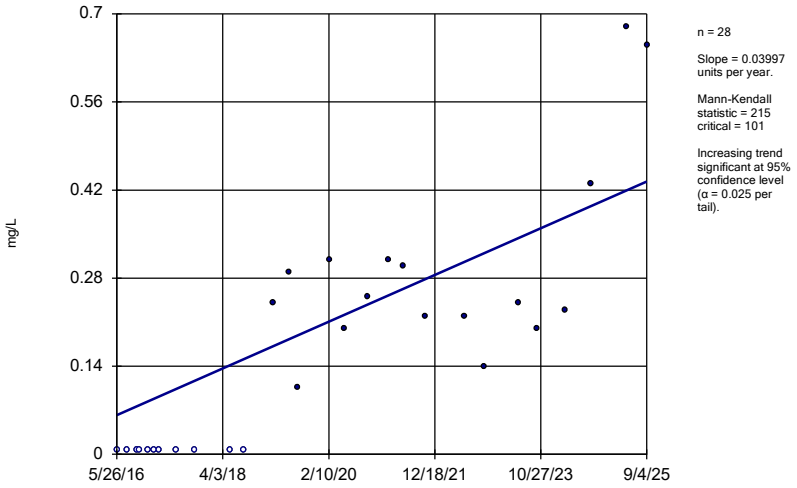
Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Combined Radium 226 + 228 Analysis Run 11/18/2025 3:43 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

AD-1 (bg)



n = 28

Slope = 0.03997 units per year.

Mann-Kendall statistic = 215
critical = 101

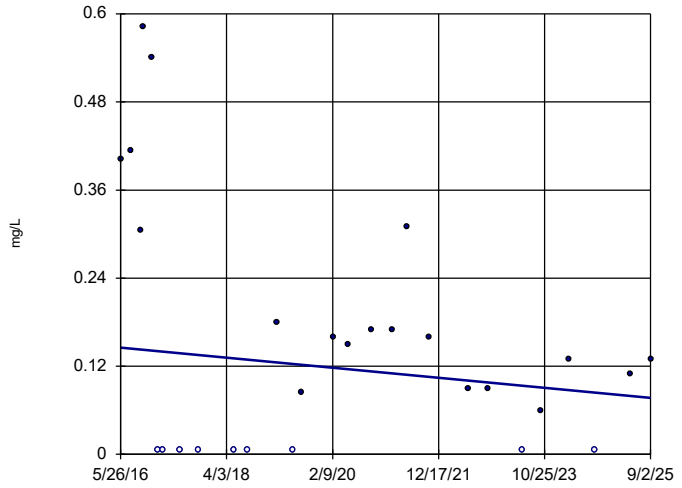
Increasing trend significant at 95% confidence level (α = 0.025 per tail).

Constituent: Fluoride, total Analysis Run 11/18/2025 3:43 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

AD-17 (bg)



n = 28

Slope = -0.007393 units per year.

Mann-Kendall statistic = -54
critical = -101

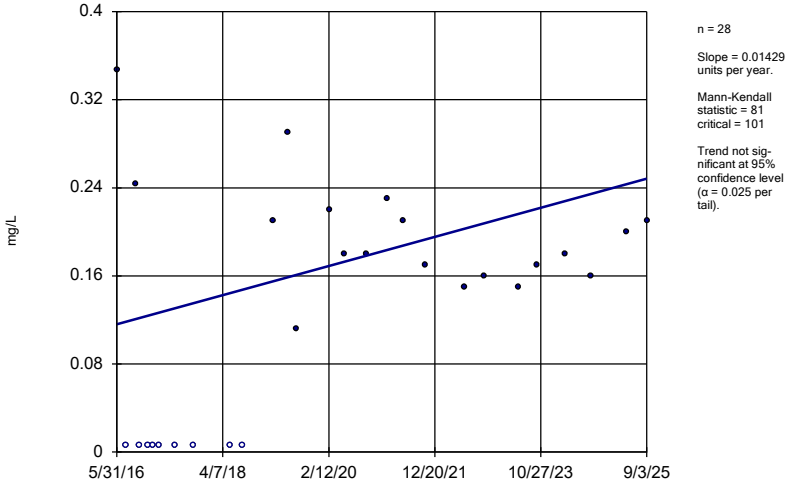
Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Fluoride, total Analysis Run 11/18/2025 3:43 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Hollow symbols indicate censored values.

Sen's Slope Estimator

AD-5 (bg)



n = 28

Slope = 0.01429 units per year.

Mann-Kendall statistic = 81
critical = 101

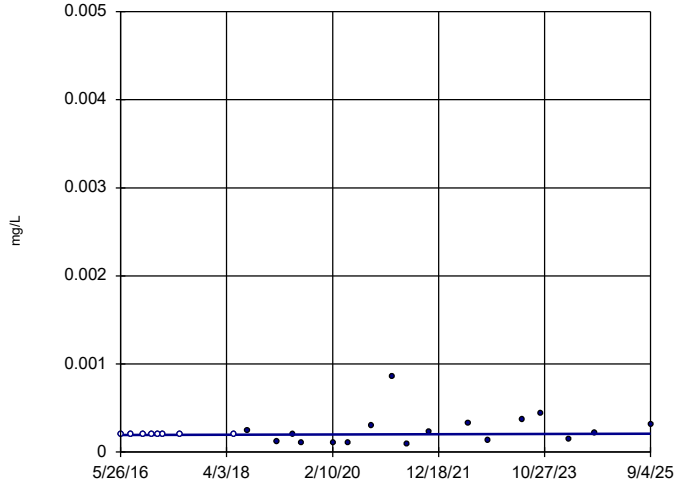
Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Fluoride, total Analysis Run 11/18/2025 3:44 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

AD-1 (bg)



n = 25

Slope = 0.000001317 units per year.

Mann-Kendall statistic = 41
critical = 85

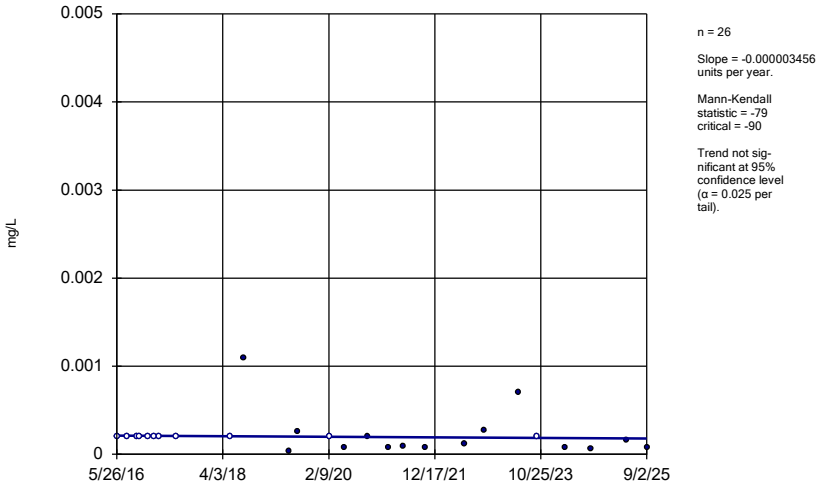
Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Lead, total Analysis Run 11/18/2025 3:44 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

AD-17 (bg)



n = 26

Slope = -0.000003456 units per year.

Mann-Kendall statistic = -79
critical = -90

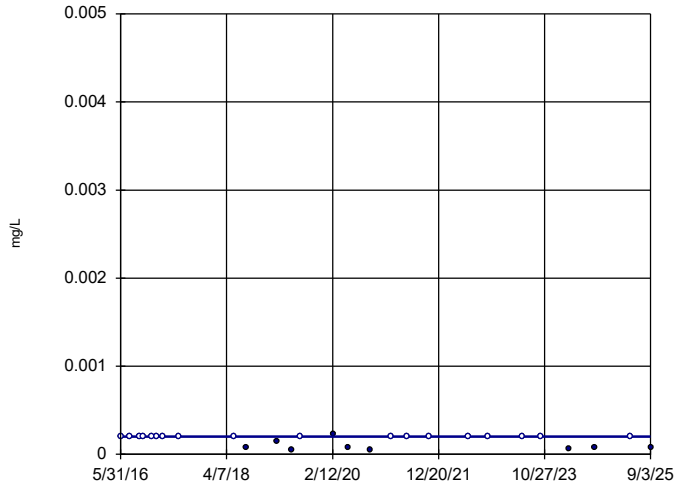
Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Lead, total Analysis Run 11/18/2025 3:44 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

AD-5 (bg)



n = 27

Slope = 0 units per year.

Mann-Kendall statistic = -54
critical = -96

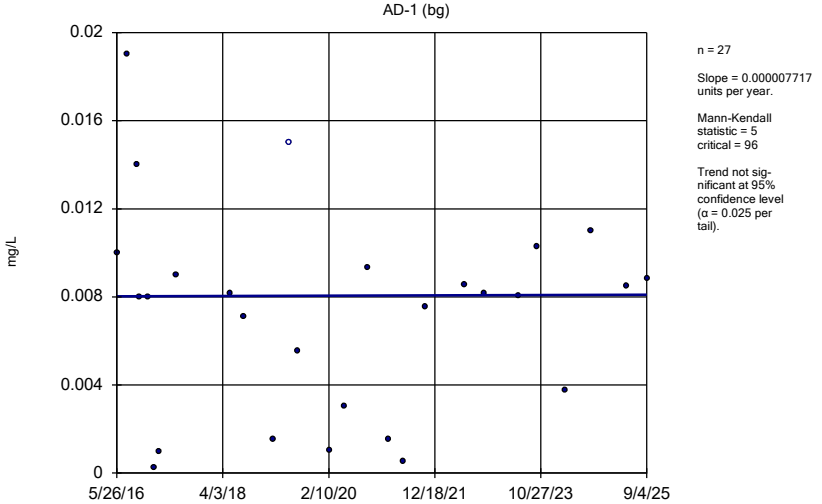
Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Lead, total Analysis Run 11/18/2025 3:44 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

AD-1 (bg)



n = 27

Slope = 0.000007717 units per year.

Mann-Kendall statistic = 5
critical = 96

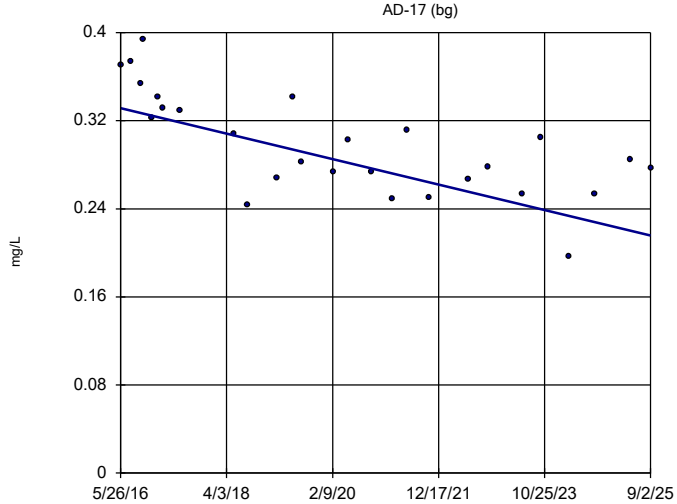
Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Lithium, total Analysis Run 11/18/2025 3:44 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

AD-17 (bg)



n = 27

Slope = -0.01248 units per year.

Mann-Kendall statistic = -177
critical = -96

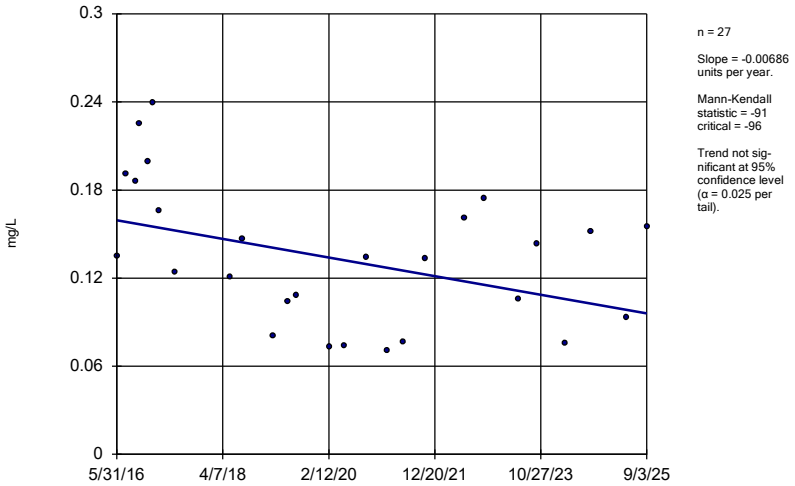
Decreasing trend significant at 95% confidence level (α = 0.025 per tail).

Constituent: Lithium, total Analysis Run 11/18/2025 3:44 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG

Sen's Slope Estimator

AD-5 (bg)



n = 27

Slope = -0.00686 units per year.

Mann-Kendall statistic = -91
critical = -96

Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Lithium, total Analysis Run 11/18/2025 3:44 PM View: UTLs

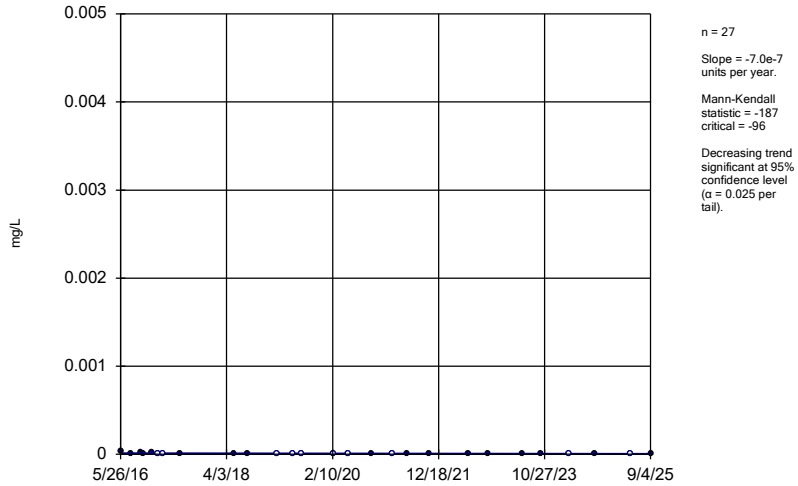
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

AD-1 (bg)



n = 27

Slope = -7.0e-7 units per year.

Mann-Kendall statistic = -187
critical = -96

Decreasing trend significant at 95% confidence level (α = 0.025 per tail).

Constituent: Mercury, total Analysis Run 11/18/2025 3:44 PM View: UTLs

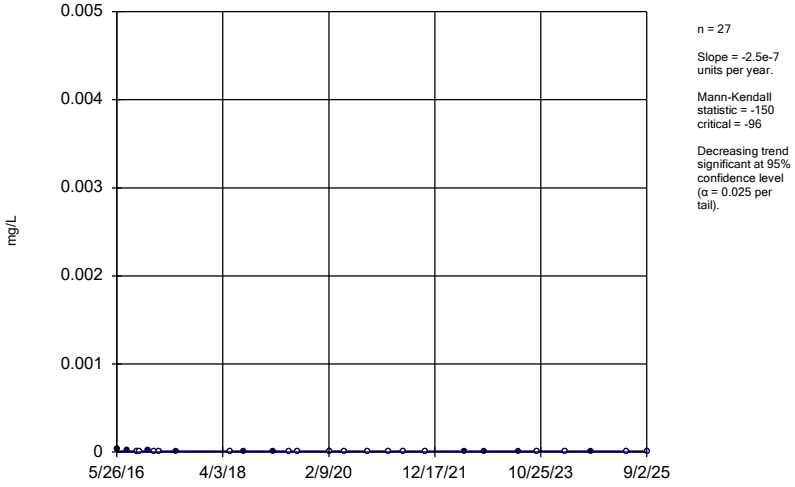
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

AD-17 (bg)



n = 27

Slope = -2.5e-7 units per year.

Mann-Kendall statistic = -150
critical = -96

Decreasing trend significant at 95% confidence level (α = 0.025 per tail).

Constituent: Mercury, total Analysis Run 11/18/2025 3:44 PM View: UTLs

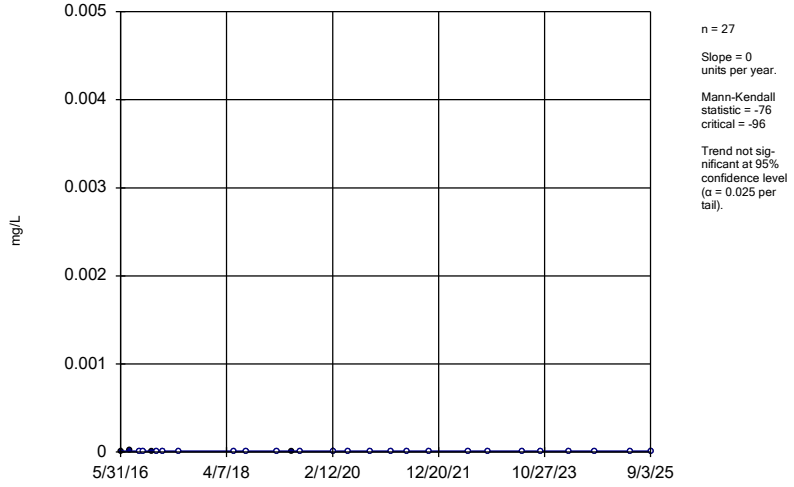
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

AD-5 (bg)



n = 27

Slope = 0 units per year.

Mann-Kendall statistic = -76
critical = -96

Trend not significant at 95% confidence level (α = 0.025 per tail).

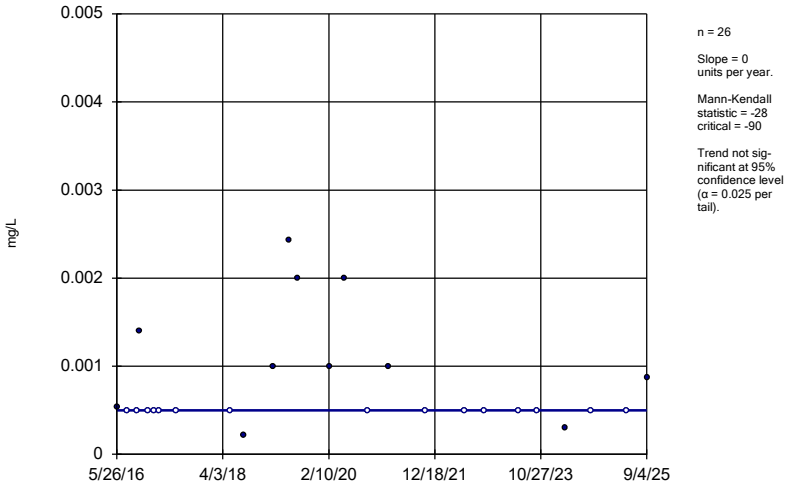
Constituent: Mercury, total Analysis Run 11/18/2025 3:44 PM View: UTLs

Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

AD-1 (bg)



n = 26

Slope = 0 units per year.

Mann-Kendall statistic = -28
critical = -90

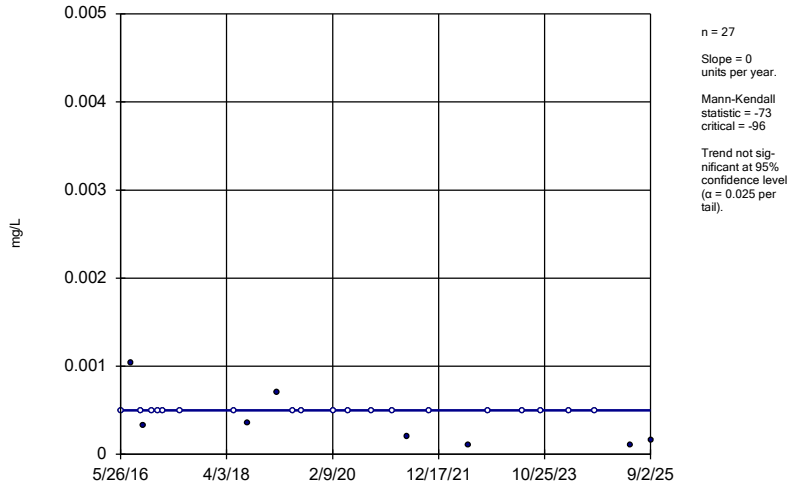
Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Molybdenum, total Analysis Run 11/18/2025 3:44 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

AD-17 (bg)



n = 27

Slope = 0 units per year.

Mann-Kendall statistic = -73
critical = -96

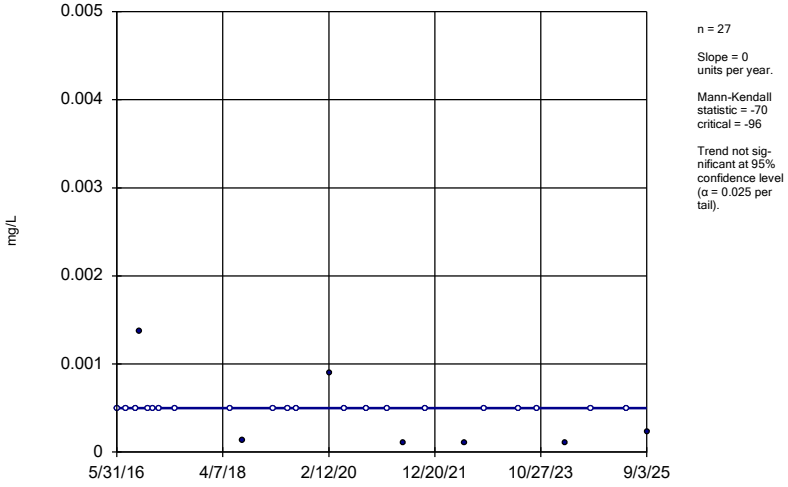
Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Molybdenum, total Analysis Run 11/18/2025 3:44 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

AD-5 (bg)



n = 27

Slope = 0 units per year.

Mann-Kendall statistic = -70
critical = -96

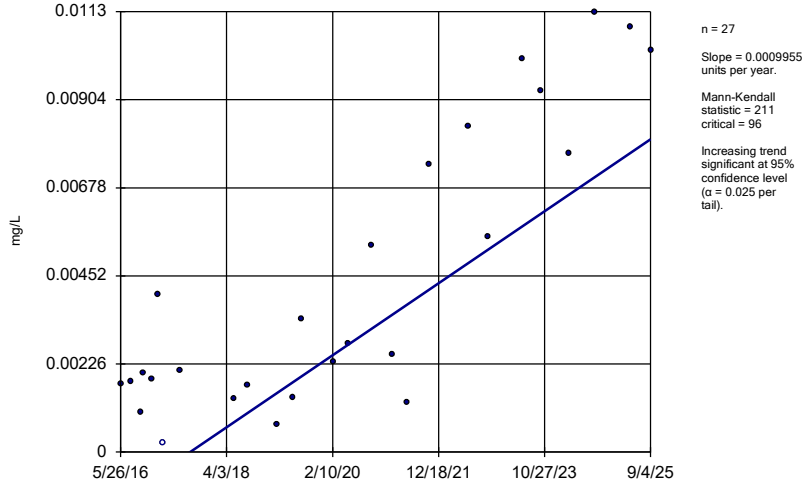
Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Molybdenum, total Analysis Run 11/18/2025 3:44 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

AD-1 (bg)



n = 27

Slope = 0.0009955 units per year.

Mann-Kendall statistic = 211
critical = 96

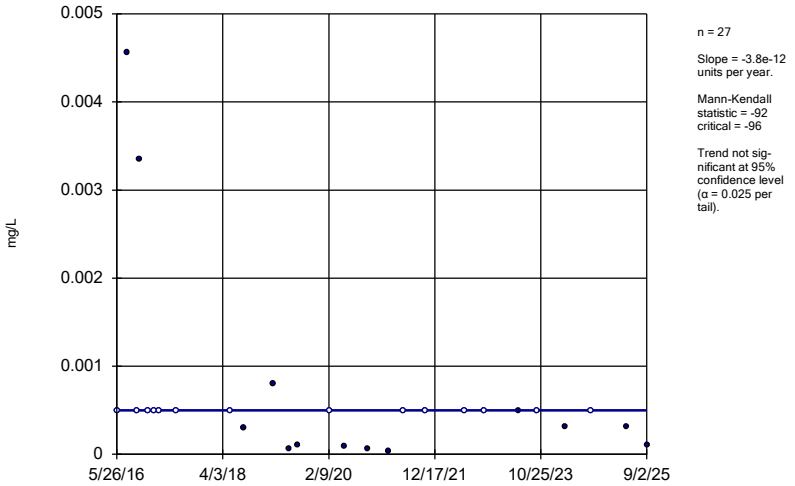
Increasing trend significant at 95% confidence level (α = 0.025 per tail).

Constituent: Selenium, total Analysis Run 11/18/2025 3:44 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

AD-17 (bg)



n = 27

Slope = -3.8e-12 units per year.

Mann-Kendall statistic = -92
critical = -96

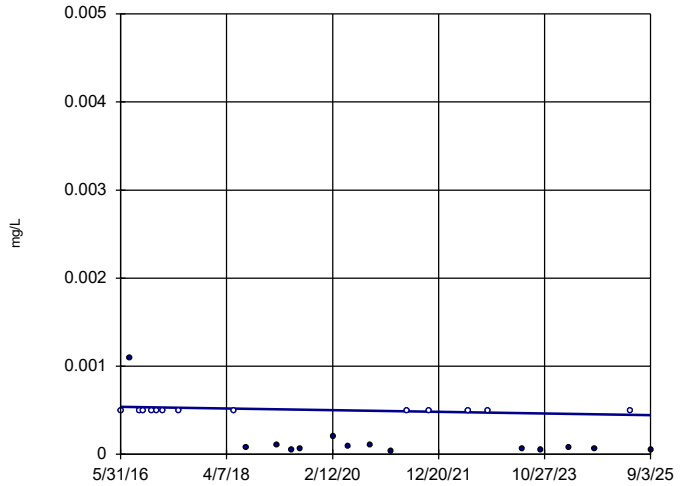
Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Selenium, total Analysis Run 11/18/2025 3:44 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

AD-5 (bg)



n = 27

Slope = -0.00001023 units per year.

Mann-Kendall statistic = -125
critical = -96

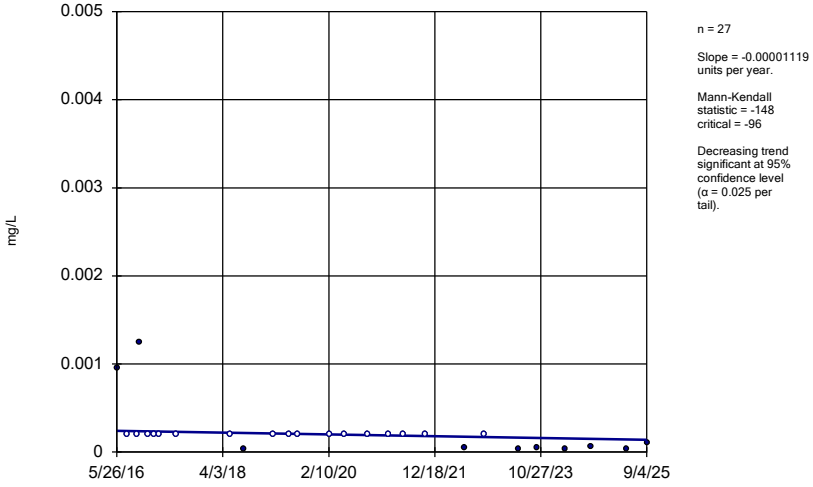
Decreasing trend significant at 95% confidence level (α = 0.025 per tail).

Constituent: Selenium, total Analysis Run 11/18/2025 3:44 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

AD-1 (bg)



n = 27

Slope = -0.00001119 units per year.

Mann-Kendall statistic = -148
critical = -96

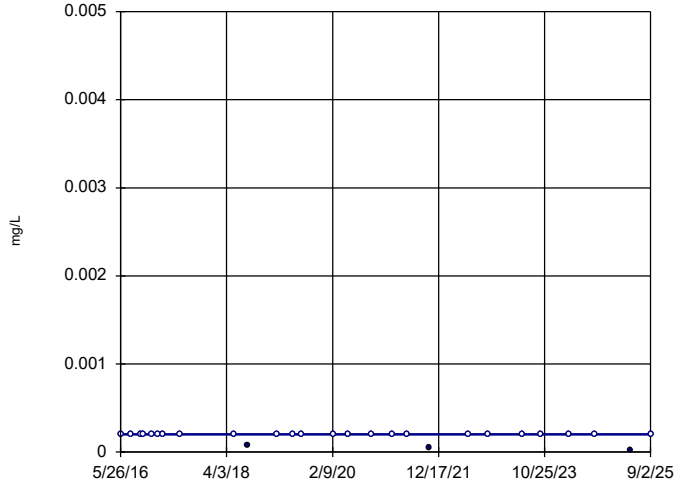
Decreasing trend significant at 95% confidence level (α = 0.025 per tail).

Constituent: Thallium, total Analysis Run 11/18/2025 3:44 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

AD-17 (bg)



n = 27

Slope = 0 units per year.

Mann-Kendall statistic = -29
critical = -96

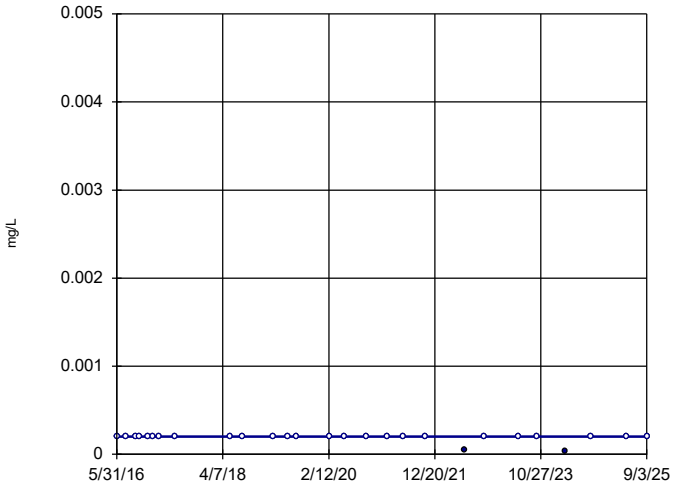
Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Thallium, total Analysis Run 11/18/2025 3:44 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

AD-5 (bg)



n = 27

Slope = 0 units per year.

Mann-Kendall statistic = -33
critical = -96

Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Thallium, total Analysis Run 11/18/2025 3:44 PM View: UTLs

Welsh PBAP Client: Geosyntec Data: Welsh PBAP

FIGURE H

UTLs

Upper Tolerance Limits Summary Table

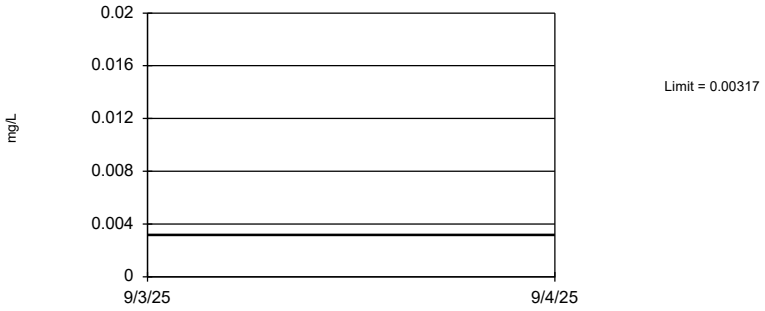
Welsh PBAP Client: Geosyntec Data: Welsh PBAP Printed 11/18/2025, 4:19 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Antimony, total (mg/L)	n/a	0.00317	n/a	n/a	n/a	n/a	81	60.49	n/a	0.01569	NP Inter(NDs)
Arsenic, total (mg/L)	n/a	0.00628	n/a	n/a	n/a	n/a	81	23.46	n/a	0.01569	NP Inter(normality)
Barium, total (mg/L)	n/a	0.512	n/a	n/a	n/a	n/a	81	0	n/a	0.01569	NP Inter(normality)
Beryllium, total (mg/L)	n/a	0.0022	n/a	n/a	n/a	n/a	81	7.407	n/a	0.01569	NP Inter(normality)
Cadmium, total (mg/L)	n/a	0.004	n/a	n/a	n/a	n/a	79	32.91	n/a	0.01738	NP Inter(normality)
Chromium, total (mg/L)	n/a	0.005	n/a	n/a	n/a	n/a	80	11.25	n/a	0.01652	NP Inter(normality)
Cobalt, total (mg/L)	n/a	0.0748	n/a	n/a	n/a	n/a	81	0	n/a	0.01569	NP Inter(normality)
Combined Radium 226 + 228 (pCi/L)	n/a	4.712	n/a	n/a	n/a	n/a	81	0	sqrt(x)	0.05	Inter
Fluoride, total (mg/L)	n/a	0.68	n/a	n/a	n/a	n/a	84	34.52	n/a	0.01345	NP Inter(normality)
Lead, total (mg/L)	n/a	0.0011	n/a	n/a	n/a	n/a	78	47.44	n/a	0.0183	NP Inter(normality)
Lithium, total (mg/L)	n/a	0.394	n/a	n/a	n/a	n/a	81	1.235	n/a	0.01569	NP Inter(normality)
Mercury, total (mg/L)	n/a	0.000033	n/a	n/a	n/a	n/a	81	61.73	n/a	0.01569	NP Inter(NDs)
Molybdenum, total (mg/L)	n/a	0.00243	n/a	n/a	n/a	n/a	80	67.5	n/a	0.01652	NP Inter(NDs)
Selenium, total (mg/L)	n/a	0.0113	n/a	n/a	n/a	n/a	81	34.57	n/a	0.01569	NP Inter(normality)
Thallium, total (mg/L)	n/a	0.001251	n/a	n/a	n/a	n/a	81	81.48	n/a	0.01569	NP Inter(NDs)

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Tolerance Limit

Interwell Non-parametric



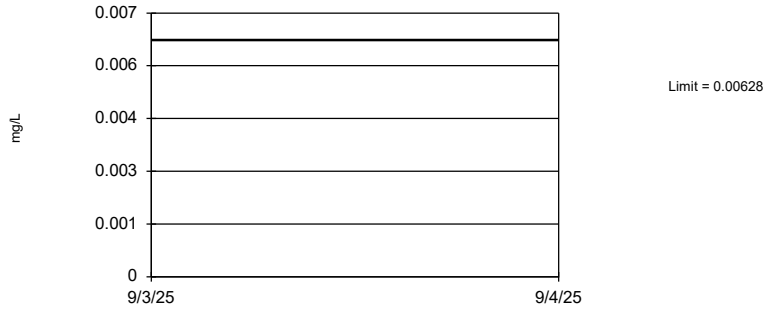
Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 81 background values. 60.49% NDs. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01569.

Constituent: Antimony, total Analysis Run 11/18/2025 4:18 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric



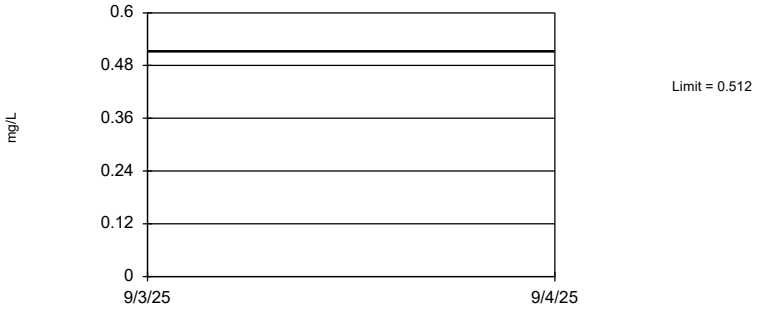
Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 81 background values. 23.46% NDs. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01569.

Constituent: Arsenic, total Analysis Run 11/18/2025 4:19 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Tolerance Limit

Interwell Non-parametric



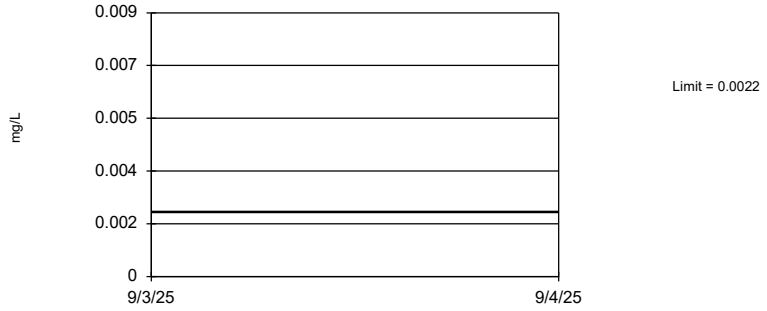
Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 81 background values. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01569.

Constituent: Barium, total Analysis Run 11/18/2025 4:19 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Tolerance Limit

Interwell Non-parametric



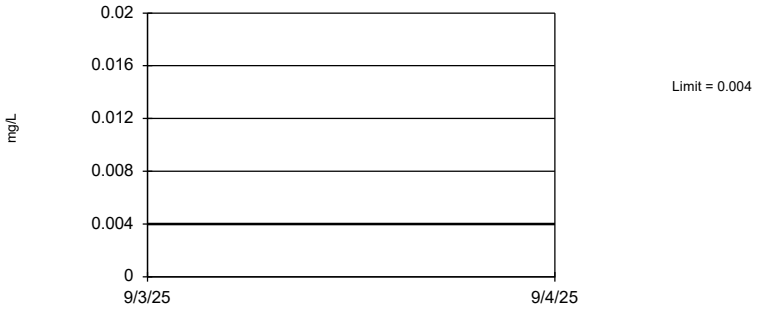
Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 81 background values. 7.407% NDs. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01569.

Constituent: Beryllium, total Analysis Run 11/18/2025 4:19 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 79 background values. 32.91% NDs. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01738.

Constituent: Cadmium, total Analysis Run 11/18/2025 4:19 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric



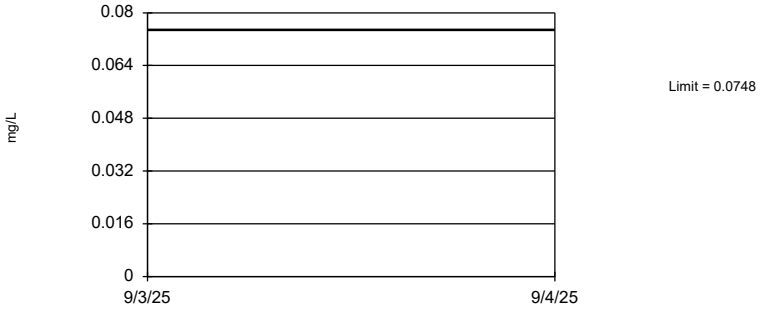
Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 80 background values. 11.25% NDs. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01652.

Constituent: Chromium, total Analysis Run 11/18/2025 4:19 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric



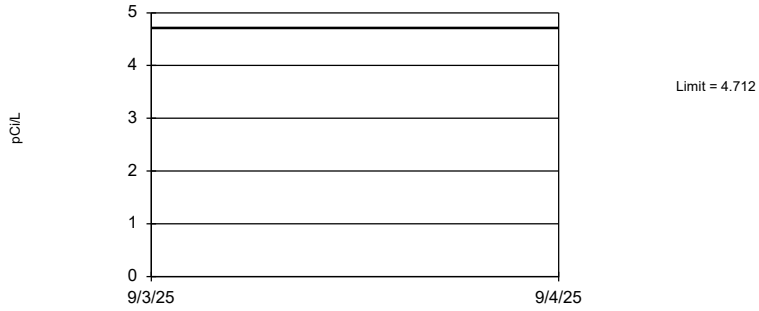
Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 81 background values. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01569.

Constituent: Cobalt, total Analysis Run 11/18/2025 4:19 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Tolerance Limit

Interwell Parametric



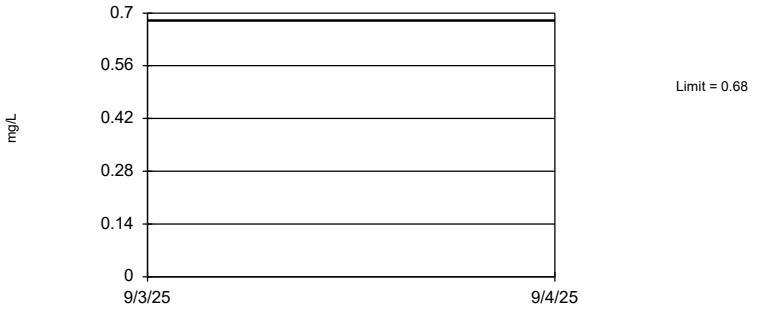
95% coverage. Background Data Summary (based on square root transformation): Mean=1.477, Std. Dev.=0.3538, n=81. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9743, critical = 0.958. Report alpha = 0.05.

Constituent: Combined Radium 226 + 228 Analysis Run 11/18/2025 4:19 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric



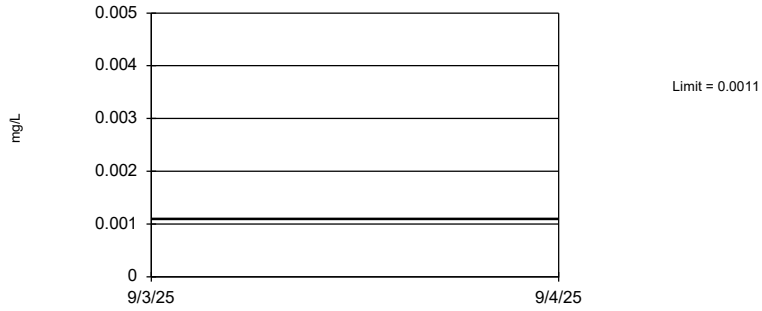
Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 84 background values. 34.52% NDs. 94.73% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01345.

Constituent: Fluoride, total Analysis Run 11/18/2025 4:19 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric



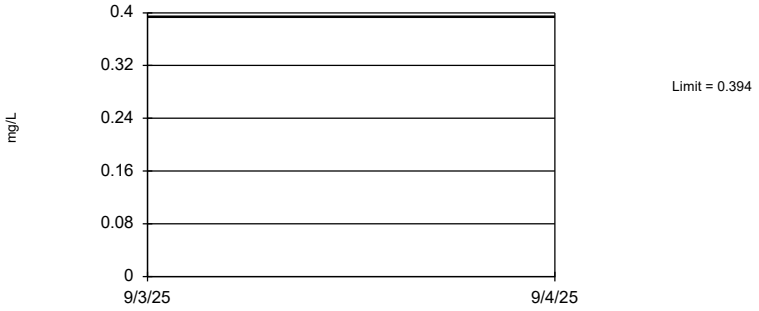
Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 78 background values. 47.44% NDs. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.0183.

Constituent: Lead, total Analysis Run 11/18/2025 4:19 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

Sanitas™ v.10.1.02 Software licensed to Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric



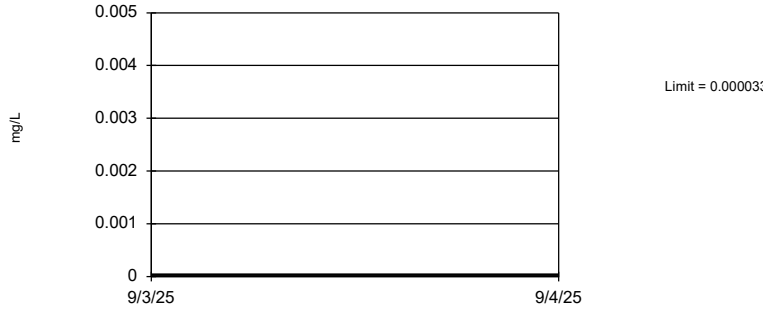
Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 81 background values. 1.235% NDs. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01569.

Constituent: Lithium, total Analysis Run 11/18/2025 4:19 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Tolerance Limit

Interwell Non-parametric



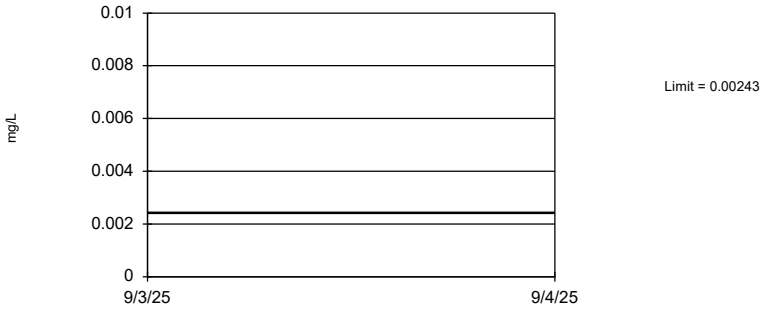
Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 81 background values. 61.73% NDs. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01569.

Constituent: Mercury, total Analysis Run 11/18/2025 4:19 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Tolerance Limit

Interwell Non-parametric



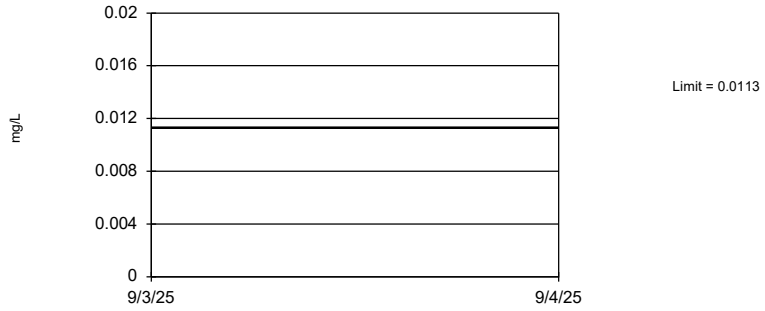
Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 80 background values. 67.5% NDs. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01652.

Constituent: Molybdenum, total Analysis Run 11/18/2025 4:19 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Tolerance Limit

Interwell Non-parametric



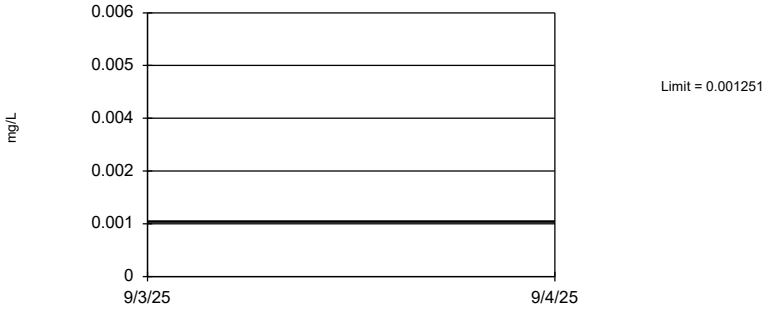
Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 81 background values. 34.57% NDs. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01569.

Constituent: Selenium, total Analysis Run 11/18/2025 4:19 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 81 background values. 81.48% NDs. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01569.

Constituent: Thallium, total Analysis Run 11/18/2025 4:19 PM View: UTLs
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

FIGURE I

GWPS

WELSH PBAP GWPS			
Constituent Name	**MCL**	**Background Limit**	**GWPS**
Antimony, Total (mg/L)	0.006	0.0032	0.006
Arsenic, Total (mg/L)	0.01	0.0063	0.01
Barium, Total (mg/L)	2	0.51	2
Beryllium, Total (mg/L)	0.004	0.0022	0.004
Cadmium, Total (mg/L)	0.005	0.004	0.005
Chromium, Total (mg/L)	0.1	0.005	0.1
Cobalt, Total (mg/L)	n/a	0.075	0.075
Combined Radium, Total (pCi/L)	5	4.71	5
Fluoride, Total (mg/L)	4	0.68	4
Lead, Total (mg/L)	n/a	0.0011	0.0011
Lithium, Total (mg/L)	n/a	0.39	0.39
Mercury, Total (mg/L)	0.002	0.000033	0.002
Molybdenum, Total (mg/L)	n/a	0.0024	0.0024
Selenium, Total (mg/L)	0.05	0.011	0.05
Thallium, Total (mg/L)	0.002	0.0013	0.002

**GWPS = Groundwater Protection Standard*

**MCL = Maximum Contaminant Level*

FIGURE J
Confidence Intervals

Confidence Interval Summary Table - All Results (No Significant)

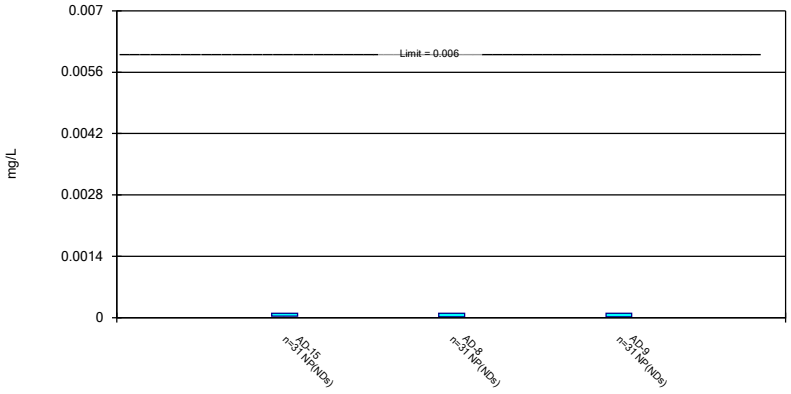
Welsh PBAP Client: Geosyntec Data: Welsh PBAP Printed 11/18/2025, 4:23 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony, total (mg/L)	AD-15	0.0001	0.00003	0.006	No	31	0.00003787	54.84	None	No	0.01	NP (NDs)
Antimony, total (mg/L)	AD-8	0.0001	0.00002	0.006	No	31	0.0006058	67.74	None	No	0.01	NP (NDs)
Antimony, total (mg/L)	AD-9	0.0001	0.000015	0.006	No	31	0.00003616	80.65	None	No	0.01	NP (NDs)
Arsenic, total (mg/L)	AD-15	0.005401	0.002846	0.01	No	30	0.005092	0	None	ln(x)	0.01	Param.
Arsenic, total (mg/L)	AD-8	0.001063	0.00025	0.01	No	31	0.002083	25.81	None	No	0.01	NP (normality)
Arsenic, total (mg/L)	AD-9	0.00168	0.0003	0.01	No	31	0.002058	29.03	None	No	0.01	NP (normality)
Barium, total (mg/L)	AD-15	0.115	0.0751	2	No	30	0.08326	0	None	No	0.01	NP (normality)
Barium, total (mg/L)	AD-8	0.02888	0.02385	2	No	31	0.006092	0	None	sqrt(x)	0.01	Param.
Barium, total (mg/L)	AD-9	0.052	0.037	2	No	31	0.01671	0	None	No	0.01	NP (normality)
Beryllium, total (mg/L)	AD-15	0.0003858	0.0001608	0.004	No	30	0.0005279	0	None	ln(x)	0.01	Param.
Beryllium, total (mg/L)	AD-8	0.00005	0.00003	0.004	No	31	0.00003169	64.52	None	No	0.01	NP (NDs)
Beryllium, total (mg/L)	AD-9	0.001128	0.0007277	0.004	No	31	0.0004534	0	None	No	0.01	Param.
Cadmium, total (mg/L)	AD-15	0.00008	0.000011	0.005	No	30	0.0001679	3.333	None	No	0.01	NP (normality)
Cadmium, total (mg/L)	AD-8	0.00005	0.000021	0.005	No	31	0.0004492	29.03	None	No	0.01	NP (normality)
Cadmium, total (mg/L)	AD-9	0.0005252	0.0002212	0.005	No	31	0.0007143	0	None	ln(x)	0.01	Param.
Chromium, total (mg/L)	AD-15	0.004	0.00035	0.1	No	30	0.01317	0	None	No	0.01	NP (normality)
Chromium, total (mg/L)	AD-8	0.0003627	0.0001686	0.1	No	31	0.0004206	16.13	Kaplan-Meier	x^(1/3)	0.01	Param.
Chromium, total (mg/L)	AD-9	0.0005928	0.0004178	0.1	No	31	0.0002778	25.81	Kaplan-Meier	No	0.01	Param.
Cobalt, total (mg/L)	AD-15	0.00541	0.00294	0.0748	No	30	0.004421	0	None	No	0.01	NP (normality)
Cobalt, total (mg/L)	AD-8	0.005678	0.003676	0.0748	No	31	0.002268	0	None	No	0.01	Param.
Cobalt, total (mg/L)	AD-9	0.02204	0.01735	0.0748	No	31	0.005723	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	AD-15	2.257	1.6	5	No	30	0.731	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	AD-8	1.286	0.685	5	No	31	1.198	0	None	ln(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	AD-9	2.52	1.852	5	No	31	0.7573	0	None	No	0.01	Param.
Fluoride, total (mg/L)	AD-15	0.08	0.06	4	No	30	0.01614	30	None	No	0.01	NP (normality)
Fluoride, total (mg/L)	AD-8	0.8233	0.6548	4	No	31	0.241	6.452	None	x^2	0.01	Param.
Fluoride, total (mg/L)	AD-9	0.19	0.1	4	No	29	0.09382	20.69	None	No	0.01	NP (normality)
Lead, total (mg/L)	AD-15	0.00287	0.00009	0.0011	No	30	0.005402	10	None	No	0.01	NP (normality)
Lead, total (mg/L)	AD-8	0.0002	0.0001	0.0011	No	31	0.00006288	64.52	None	No	0.01	NP (NDs)
Lead, total (mg/L)	AD-9	0.0002	0.00008	0.0011	No	31	0.00009401	29.03	None	No	0.01	NP (normality)
Lithium, total (mg/L)	AD-15	0.008	0.0033	0.39	No	31	0.0266	0	None	No	0.01	NP (normality)
Lithium, total (mg/L)	AD-8	0.09297	0.07408	0.39	No	31	0.0214	0	None	No	0.01	Param.
Lithium, total (mg/L)	AD-9	1.11	0.207	0.39	No	31	0.4663	0	None	No	0.01	NP (normality)
Mercury, total (mg/L)	AD-15	0.00001932	0.000005	0.002	No	29	0.00002469	51.72	None	No	0.01	NP (NDs)
Mercury, total (mg/L)	AD-8	0.000005	0.000005	0.002	No	30	0.000003102	83.33	None	No	0.01	NP (NDs)
Mercury, total (mg/L)	AD-9	0.000006	0.000003	0.002	No	30	0.000008409	33.33	None	No	0.01	NP (normality)
Molybdenum, total (mg/L)	AD-15	0.0005868	0.0005	0.00243	No	31	0.0008014	70.97	None	No	0.01	NP (NDs)
Molybdenum, total (mg/L)	AD-8	0.0008389	0.0002	0.00243	No	31	0.000232	80.65	None	No	0.01	NP (NDs)
Molybdenum, total (mg/L)	AD-9	0.0005	0.00011	0.00243	No	31	0.00009865	93.55	None	No	0.01	NP (NDs)
Selenium, total (mg/L)	AD-15	0.001156	0.0005149	0.05	No	30	0.001072	6.667	None	x^(1/3)	0.01	Param.
Selenium, total (mg/L)	AD-8	0.0005	0.00008	0.05	No	31	0.0004699	51.61	None	No	0.01	NP (NDs)
Selenium, total (mg/L)	AD-9	0.00061	0.0003	0.05	No	31	0.001522	12.9	None	No	0.01	NP (normality)
Thallium, total (mg/L)	AD-15	0.0005	0.00006	0.002	No	31	0.0003708	38.71	None	No	0.01	NP (normality)
Thallium, total (mg/L)	AD-8	0.0005	0.00011	0.002	No	31	0.0003494	35.48	None	No	0.01	NP (normality)
Thallium, total (mg/L)	AD-9	0.00028	0.0002	0.002	No	30	0.0003685	23.33	None	No	0.01	NP (normality)

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Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

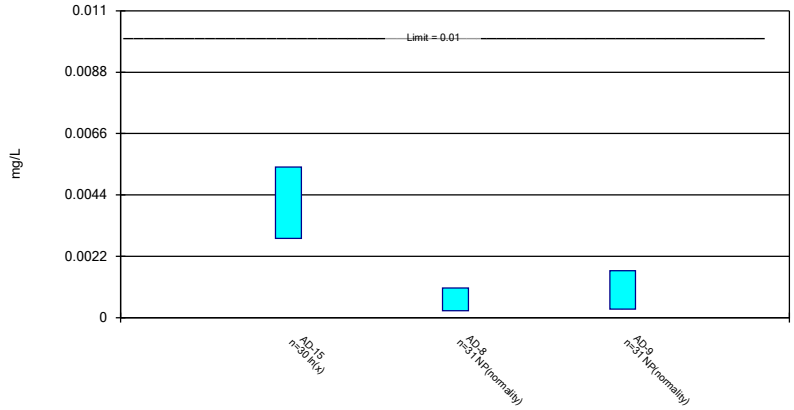


Constituent: Antimony, total Analysis Run 11/18/2025 4:21 PM View: Confidence Intervals
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

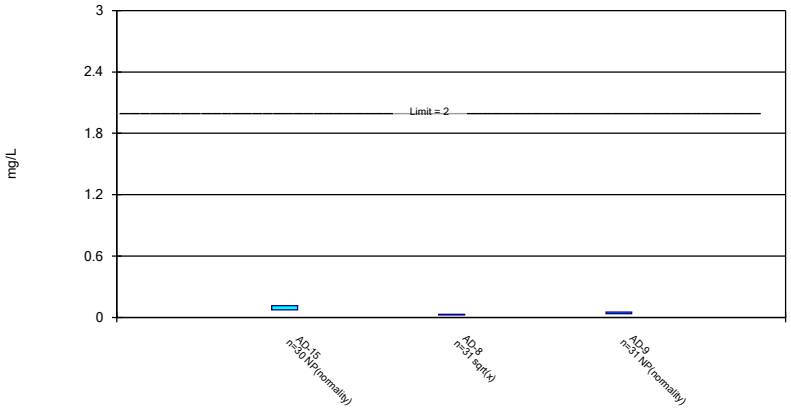


Constituent: Arsenic, total Analysis Run 11/18/2025 4:21 PM View: Confidence Intervals
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

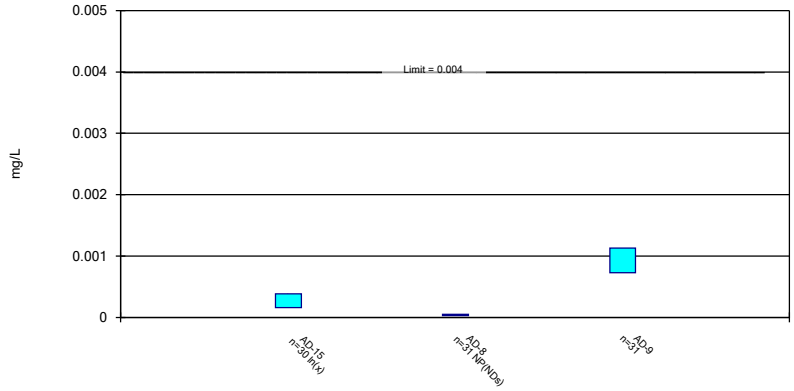


Constituent: Barium, total Analysis Run 11/18/2025 4:21 PM View: Confidence Intervals
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

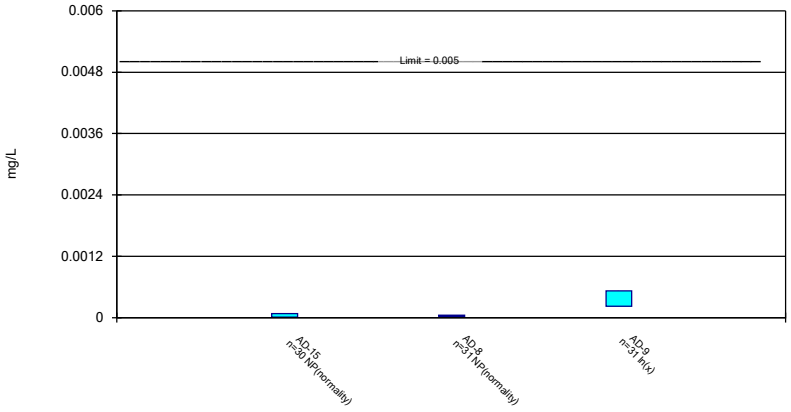


Constituent: Beryllium, total Analysis Run 11/18/2025 4:21 PM View: Confidence Intervals
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

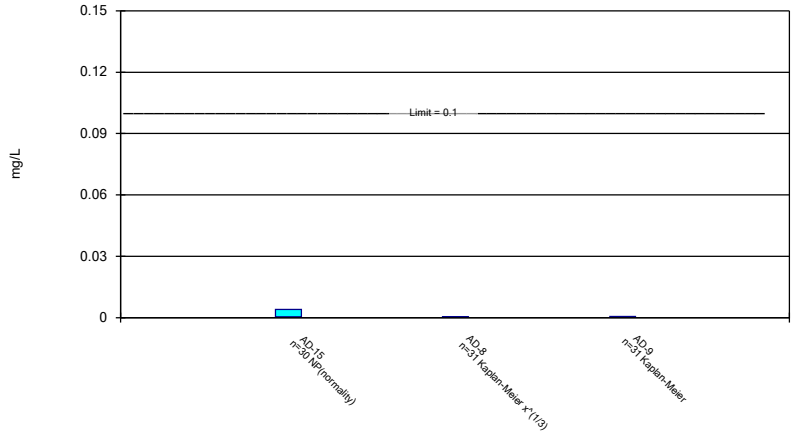


Constituent: Cadmium, total Analysis Run 11/18/2025 4:21 PM View: Confidence Intervals
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

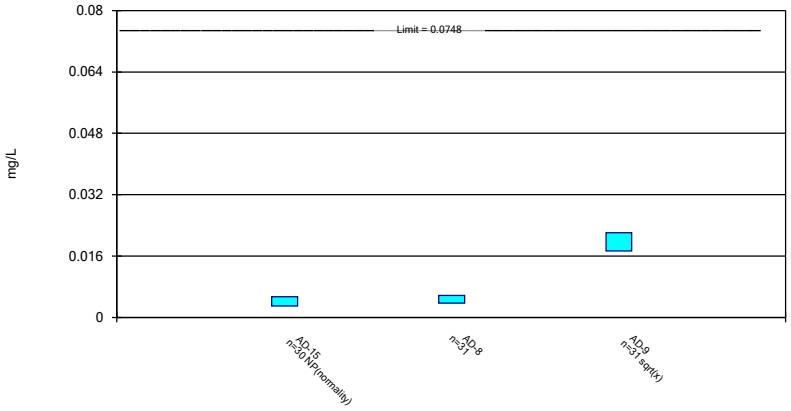


Constituent: Chromium, total Analysis Run 11/18/2025 4:21 PM View: Confidence Intervals
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

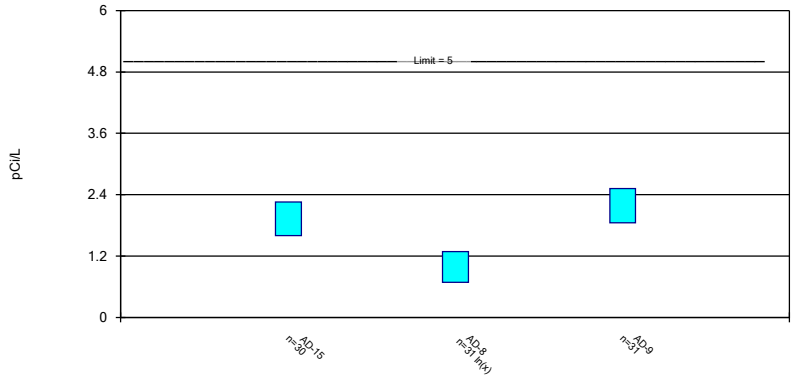


Constituent: Cobalt, total Analysis Run 11/18/2025 4:21 PM View: Confidence Intervals
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

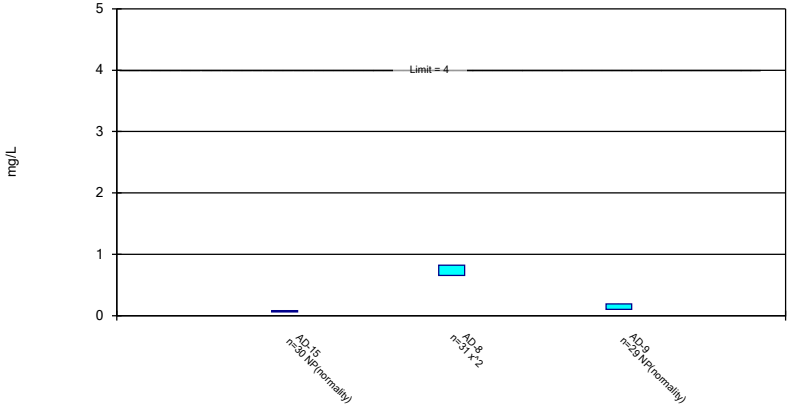


Constituent: Combined Radium 226 + 228 Analysis Run 11/18/2025 4:21 PM View: Confidence Intervals
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

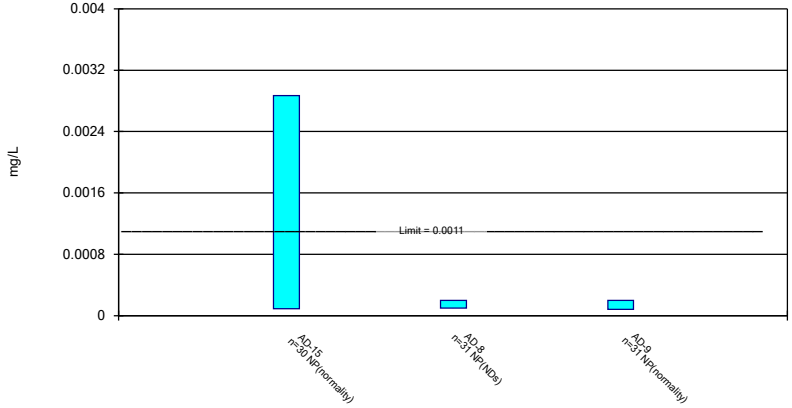


Constituent: Fluoride, total Analysis Run 11/18/2025 4:22 PM View: Confidence Intervals
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

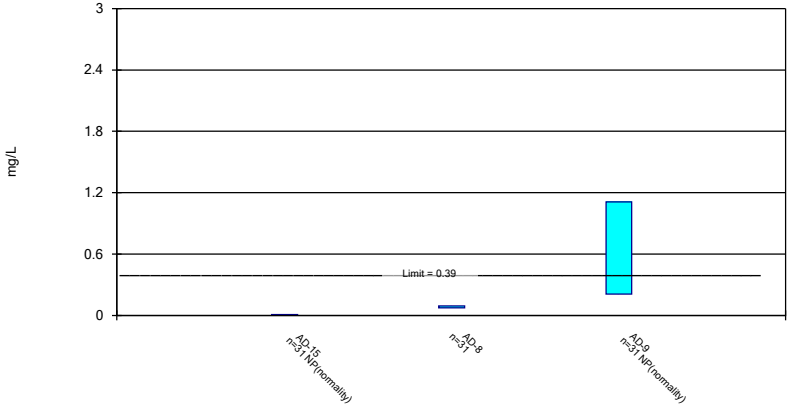


Constituent: Lead, total Analysis Run 11/18/2025 4:22 PM View: Confidence Intervals
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

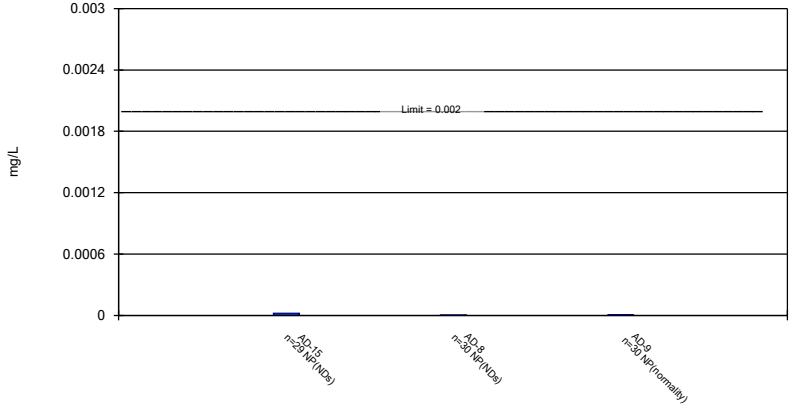


Constituent: Lithium, total Analysis Run 11/18/2025 4:22 PM View: Confidence Intervals
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

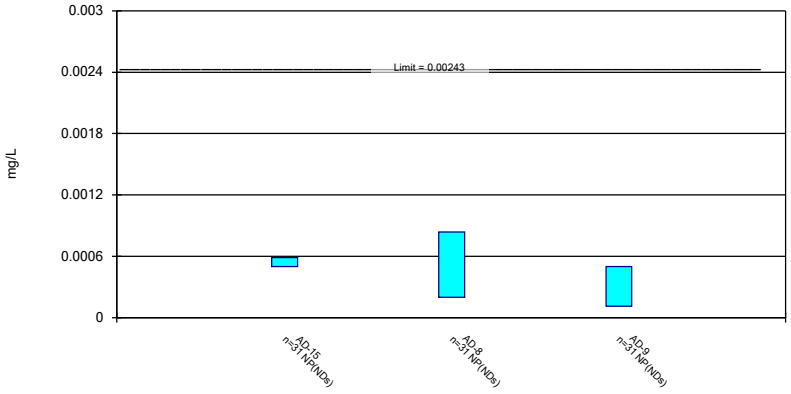


Constituent: Mercury, total Analysis Run 11/18/2025 4:22 PM View: Confidence Intervals
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

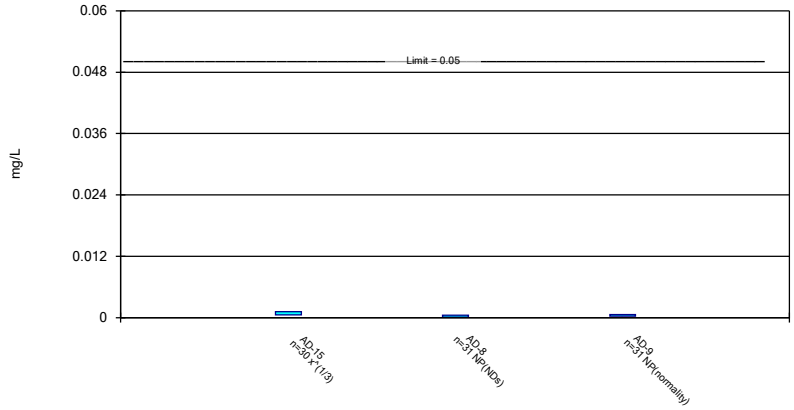


Constituent: Molybdenum, total Analysis Run 11/18/2025 4:22 PM View: Confidence Intervals
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

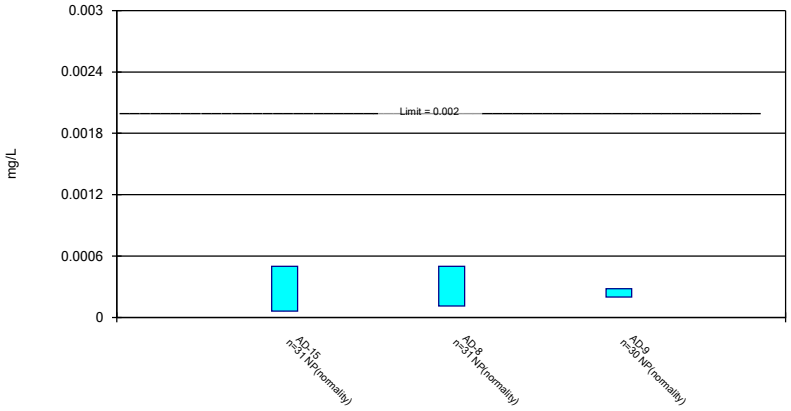


Constituent: Selenium, total Analysis Run 11/18/2025 4:22 PM View: Confidence Intervals
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

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Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Thallium, total Analysis Run 11/18/2025 4:22 PM View: Confidence Intervals
Welsh PBAP Client: Geosyntec Data: Welsh PBAP

APPENDIX 3

Alternative Source Demonstrations - N/A

APPENDIX 4

Notices for Monitoring Program Transitions

Welsh Power Plant

Notice of Establishing Assessment Monitoring Program (EAP)

Primary Bottom Ash Pond

On January 04, 2018, it was determined that Welsh's Primary Bottom Ash Pond had statistically significant increases over background for Boron. An alternative source demonstration was not successful within the 90 day period as allowed for in 257.94(e)(2) prompting the initiation of an assessment monitoring program, which was established on April 13, 2018. Therefore this notice is being placed in the operating record in accordance with the requirement of 257.94(e)(3).

APPENDIX 5

Well Installation/Decommissioning Logs – NA

APPENDIX 6

Groundwater monitoring Field and Laboratory Reports

CCR Groundwater Monitoring Well Inspection Form

Facility: Welsh Sampling Period: Feb 2025

Sampling Contractor: Eagle Signature:

Well No.	Well Locked	Fastener and Lock Functioning	Well Locked After Sampling	Access to Well Maintained	Well Casing, Protective Cover, Barriers and Pad in Good Shape	Well Properly Labeled	Well Cap Present and Vented*	Comments
AD-15	✓	✓	✓	✓	✓	✓	✓	
AD-10	✓	✓	✓	✓	✓		✓	label not attached
AD-11	✓	✓	✓	✓	✓	✓	✓	
AD-14	✓	✓	✓	✓	✓	✓	✓	lock needs replacing
AD-4C	✓	✓	✓	✓	✓	✓	✓	
AD-4B	✓	✓	✓	✓	✓	✓	✓	
AD-4	✓	✓	✓	✓	✓	✓	✓	
AD-4A	✓	✓	✓	✓		✓	✓	Pad cracked thru middle
AD-16R	✓	✓	✓	✓	✓	✓	✓	
AD-17	✓	✓	✓	✓	✓	✓	✓	
AD-22	✓	✓	✓	✓	✓	✓	✓	
AD-23	✓	✓	✓	✓	✓	✓	✓	

*Not all wells will be vented, especially flush mounted wells. If that is the case, please note "flush mount well" in the comments.

CCR Groundwater Monitoring Well Inspection Form

Facility: AEP WELSH PP

Sampling Period: FEBRUARY 2025

Sampling Contractor: EAGLE

Signature: KAM

Well No.	Well Locked	Lock Functioning	Well Locked After Sampling	Access to Well Maintained	Well Casing, Housing, and Pad in Good Shape	Well Properly Labeled	Well cap present	Comments	DTW
AD-13	✓	✓	✓	✓	✓	✓	✓		
AD-09	✓	✓	✓	✓	✓	✓	✓		
AD-08	✓	✓	✓	✓	✓	✓	✓		
AD-07	✓	✓	✓	✓	✓	✓	✓		16.70
AD-06	✓	✓	✓	✓	✓	✓	✓		12.32
AD-12	✓	✓	✓	✓	✓	✓	✓		19.69
AD-18	✓	✓	✓	✓	✓	✓	✓		6.18
AD-05	✓	✓	✓	✓	✓	✓	✓		12.48

Instructions: Complete form and submit to AEP Environmental Services with Field Data. Place check mark for items that are satisfactory. Unsatisfactory items should be left blank with a note in the comments section on what needs to be remedied.

Facility Name	Welsh
Sample by	Matt Hamilton

Depth to water, feet (TOC)	7.47
Measured Total Depth, feet (TOC)	18.82

Sample Location ID	AD-4C
Depth to water date	2-16-25

Purge Stabilization Data

Time	Water Depth (from TOC)	Flow Rate (mL/min)	pH (S.U.)	Spec Cond (µS/cm)	Turbidity (N.T.U)	D.O. (mg/L)	ORP (mV)	Temperature (°C)		
1131	7.98	200	4.59	466	12.8	0.92	406	12.46		
1136	7.69	200	4.57	456	9.7	0.80	369	13.36		
1141	7.99	200	4.58	450	9.7	0.78	359	13.51		

Total volume purged	
Sample appearance	clear
Sample time	1143
Sample date	2-16-25

Facility Name	AEP WELSH PP
Sample by	KENNY McDONALD

Sample Location ID	AP-08

Depth to water, feet (TOC)	13.48
Measured Total Depth, feet (TOC)	29.04

Depth to water date	02/10/25

Purge Stabilization Data

Time	Water Depth (from TOC)	Flow Rate (mL/min)	pH (S.U.)	Spec Cond (µS/cm)	Turbidity (N.T.U)	D.O. (mg/L)	ORP (mV)	Temperature (°C)		
1012	13.61	224	6.57	435	7.2	1.21	316	16.77		
1017	13.64	224	6.63	430	6.9	1.17	311	16.84		
1022	13.66	224	6.68	428	6.7	1.13	306	16.86		
1027	13.70	224	6.70	428	6.9	1.12	303	16.87		

Total volume purged	
Sample appearance	CLEAR
Sample time	1029
Sample date	02/10/25

DUPLICATE 1200

Facility Name	AEP WELSH PP
Sample by	KERRY McDONALD

Sample Location ID	AD-09

Depth to water, feet (TOC)	12.85
Measured Total Depth, feet (TOC)	36.45

Depth to water date	02/10/25

Purge Stabilization Data

Time	Water Depth (from TOC)	Flow Rate (mL/min)	pH (S.U.)	Spec Cond (µS/cm)	Turbidity (N.T.U)	D.O. (mg/L)	ORP (mV)	Temperature (°C)		
0908	12.96	228	5.69	382	2.4	2.20	337	14.41		
0913	12.97	228	5.71	383	1.6	2.16	336	14.55		
0918	12.97	228	5.73	383	1.4	2.13	336	14.58		
0923	12.97	228	5.72	384	1.6	2.13	336	14.60		

Total volume purged	
Sample appearance	CLEAR
Sample time	0925
Sample date	02/10/25

Facility Name	Welsh
Sample by	M. Hemphill

Sample Location ID	AD-11

Depth to water, feet (TOC)	18.46
Measured Total Depth, feet (TOC)	22.10

Depth to water date	2-16-23

Purge Stabilization Data

Time	Water Depth (from TOC)	Flow Rate (mL/min)	pH (S.U.)	Spec Cond (µS/cm)	Turbidity (N.T.U)	D.O. (mg/L)	ORP (mV)	Temperature (°C)		
1606	18.67	200	4.55	233	87.5	1.33	305	11.35		
1611	18.71	200	4.18	262	37.1	1.05	320	14.64		
1616	18.71	200	4.17	264	28.4	0.91	321	15.81		
1621	18.71	200	4.17	261	22.4	0.85	322	15.45		
1626	18.71	200	4.16	259	23.0	0.88	322	15.87		

Total volume purged	
Sample appearance	clear
Sample time	1628
Sample date	2-16-24

Facility Name	AEP WELSH PP
Sample by	K Early McDonald

Sample Location ID	AD-13

Depth to water, feet (TOC)	16.16
Measured Total Depth, feet (TOC)	19.40

Depth to water date	07/10/25

Purge Stabilization Data

Time	Water Depth (from TOC)	Flow Rate (mL/min)	pH (S.U.)	Spec Cond (µS/cm)	Turbidity (N.T.U)	D.O. (mg/L)	ORP (mV)	Temperature (°C)		
0836	17.02	104	5.82	411	9.3	4.06	321	12.16		
0841	17.94	104	5.70	403	10.6	3.81	317	12.25		
				WON'T HOLD	WATER LEVEL					

Total volume purged	
Sample appearance	Clear
Sample time	1122
Sample date	07/10/25

Facility Name	Welsh
Sample by	Matt Hamilton

Sample Location ID	AD-14

Depth to water, feet (TOC)	14.81
Measured Total Depth, feet (TOC)	21.27

Depth to water date	2-10-25

Purge Stabilization Data

Time	Water Depth (from TOC)	Flow Rate (mL/min)	pH (S.U.)	Spec Cond (µS/cm)	Turbidity (N.T.U)	D.O. (mg/L)	ORP (mV)	Temperature (°C)		
1048	15.06	220	4.66	258	43.5	1.04	372	11.99		
1053	15.21	220	4.74	298	18.4	0.89	379	14.52		
1058	15.27	220	4.86	403	6.2	0.80	366	15.22		
1103	15.31	220	4.92	413	6.5	0.76	364	15.35		

Total volume purged	
Sample appearance	clear
Sample time	1105
Sample date	2-10-25

Facility Name	Welch
Sample by	Matt Hamilton

Depth to water, feet (TOC)	20.72
Measured Total Depth, feet (TOC)	49.15

Sample Location ID	AD-15
Depth to water date	2-10-25

Purge Stabilization Data

Time	Water Depth (from TOC)	Flow Rate (mL/min)	pH (S.U.)	Spec Cond (µS/cm)	Turbidity (N.T.U)	D.O. (mg/L)	ORP (mV)	Temperature (°C)		
919	21.21	280	4.73	133	30.1	1.28	437	13.55		
924	21.35	280	4.35	138	32.4	1.15	411	17.68		
929	21.41	280	4.43	138	32.0	1.00	383	18.35		
934	21.43	280	4.45	138	26.2	0.86	356	16.72		

Total volume purged	
Sample appearance	Clear
Sample time	936
Sample date	2-10-25

AD-10 - 19.65
AD-4 16.22
AD-22 4.68
AD-4B - 7.06
AD-16R 26.01
AD-23 5.23
AD-4A -16.28
AD-17 22.76

CCR Groundwater Monitoring Well Inspection Form

Facility: AEP WMSH PP Sampling Period: APRIL 2025

Sampling Contractor: EAGLE Signature: [signature]

Well No.	Well Locked	Lock Functioning	Well Locked After Sampling	Access to Well Maintained	Well Casing, Housing, and Pad in Good Shape	Well Properly Labeled	Well cap present	Comments
AD-13	✓	✓	✓	✓	✓	✓	✓	
AD-08	✓	✓	✓	✓	✓	✓	✓	
AD-09	✓	✓	✓	✓	✓	✓	✓	
AD-05	✓	✓	✓	✓	✓	✓	✓	
AD-04c	✓	✓	✓	✓	✓	✓	✓	
AD-04b	✓	✓	✓	✓	✓	✓	✓	DTW 7.75
AD-04	✓	✓	✓	✓	✓	✓	✓	DTW 16.81
AD-04a	✓	✓	✓	✓	✓	✓	✓	DTW 16.86
AD-01	✓	✓	✓	✓	✓	✓	✓	

Instructions: Complete form and submit to AEP Environmental Services with Field Data. Place check mark for items that are satisfactory. Unsatisfactory items should be left blank with a note in the comments section on what needs to be remedied.

CCR Groundwater Monitoring Well Inspection Form

Facility: Welsh Sampling Period: April 2025

Sampling Contractor: Eagle Signature: Scott Bowden

Well No.	Well Locked	Fastener and Lock Functioning	Well Locked After Sampling	Access to Well Maintained	Well Casing, Protective Cover, Barriers and Pad in Good Shape	Well Properly Labeled	Well Cap Present and Vented*	Comments
AD-15	✓	–	–	–	–	–	–	
AD-16	✓	–	–	–	–	–	–	
AD-11	✓	✓	–	✓	✓	✓	✓	
AD-14	–	–	–	–	–	–	✓	
AD-3	✓	–	–	✓	–	–	✓	
AD-2	✓	✓	✓	✓	✓	–	✓	
AD-7	✓	–	–	–	–	–	✓	
AD-16A	✓	✓	✓	–	–	✓	✓	
AD-12	✓	–	–	–	–	–	✓	
AD-6	–	–	–	–	–	–	✓	
AD-17	✓	–	✓	–	–	–	✓	
AD-18	✓	–	–	–	–	–	✓	

*Not all wells will be vented, especially flush mounted wells. If that is the case, please note "flush mount well" in the comments.

Facility Name	AEP WELSH
Sample by	Kenny McDonald

Sample Location ID	AD-01

Depth to water, feet (TOC)	16.95
Measured Total Depth, feet (TOC)	28.71

Depth to water date	04/29/25

Purge Stabilization Data

Time	Water Depth (from TOC)	Flow Rate (mL/min)	pH (S.U.)	Spec Cond (µS/cm)	Turbidity (N.T.U)	D.O. (mg/L)	ORP (mV)	Temperature (°C)		
0942	17.01	208	5.41	424	0.0	1.43	291	23.74		
0947	17.01	208	5.38	428	0.0	1.37	271	22.66		
0952	17.02	208	5.38	429	0.0	1.36	267	22.63		
0957	16.98	208	5.37	431	0.0	1.34	265	22.60		

Total volume purged	
Sample appearance	CLEAR
Sample time	0959
Sample date	04/29/25

BKGD DUPLICATE 1100

Facility Name	Welsh
Sample by	Matt Hamilton

Depth to water, feet (TOC)	8.76
Measured Total Depth, feet (TOC)	20.13

Sample Location ID	AD-03
Depth to water date	4-24-25

Purge Stabilization Data

Time	Water Depth (from TOC)	Flow Rate (mL/min)	pH (S.U.)	Spec Cond (µS/cm)	Turbidity (N.T.U)	D.O. (mg/L)	ORP (mV)	Temperature (°C)		
852	9.31	300	4.50	68	12.7	0.44	443	23.37		
857	9.61	300	4.27	71	4.9	1.08	452	21.56		
902	9.77	300	4.22	76	4.5	1.16	453	21.35		

Total volume purged	
Sample appearance	clear
Sample time	904
Sample date	4-24-25

Dup - BASP

1155

Facility Name	AEP WELSH
Sample by	Kenny McDonald

Sample Location ID	AP-04c

Depth to water, feet (TOC)	8.10
Measured Total Depth, feet (TOC)	18.82

Depth to water date	04/29/25

Purge Stabilization Data

Time	Water Depth (from TOC)	Flow Rate (mL/min)	pH (S.U.)	Spec Cond (µS/cm)	Turbidity (N.T.U)	D.O. (mg/L)	ORP (mV)	Temperature (°C)		
0849	8.14	210	4.39	467	2.8	2.11	410	23.39		
0854	8.12	210	4.36	467	2.4	2.06	305	23.37		
0859	8.13	210	4.37	466	2.1	2.02	302	23.37		
0904	8.14	210	4.36	466	2.0	1.98	300	23.35		

Total volume purged	
Sample appearance	Clear
Sample time	0906
Sample date	04/29/25

Facility Name	AEP WMSHPP
Sample by	Kenny McDonald

Sample Location ID	AD-05

Depth to water, feet (TOC)	13.55
Measured Total Depth, feet (TOC)	32.88

Depth to water date	04/28/25

Purge Stabilization Data

Time	Water Depth (from TOC)	Flow Rate (mL/min)	pH (S.U.)	Spec Cond (µS/cm)	Turbidity (N.T.U)	D.O. (mg/L)	ORP (mV)	Temperature (°C)		
1118	14.61	98	5.62	341	297	1.48	349	23.51		
1123	15.53	98	5.53	352	201	1.32	337	23.47		
				WON'T HOLD WATER LEVEL						

Total volume purged	
Sample appearance	TURBID
Sample time	1104
Sample date	04/29/25

Facility Name	AEP Wright PD
Sample by	Kenny McDonald

Sample Location ID	AD-08

Depth to water, feet (TOC)	13.65
Measured Total Depth, feet (TOC)	29.04

Depth to water date	04/28/25

Purge Stabilization Data

Time	Water Depth (from TOC)	Flow Rate (mL/min)	pH (S.U.)	Spec Cond (µS/cm)	Turbidity (N.T.U)	D.O. (mg/L)	ORP (mV)	Temperature (°C)		
0852	13.87	200	6.59	417	2.4	1.97	387	24.16		
0857	13.93	200	6.54	417	2.1	1.95	381	24.09		
0902	14.01	200	6.51	416	2.0	1.96	383	24.03		
~~0907~~										

Total volume purged	
Sample appearance	Clear
Sample time	0904
Sample date	04/28/25

PDAP Duplicate #00

Facility Name	AFB WELSH PP
Sample by	KENNY McDONALD

Sample Location ID	AO-09

Depth to water, feet (TOC)	13.73
Measured Total Depth, feet (TOC)	36.45

Depth to water date	04/28/25

Purge Stabilization Data

Time	Water Depth (from TOC)	Flow Rate (mL/min)	pH (S.U.)	Spec Cond (µS/cm)	Turbidity (N.T.U)	D.O. (mg/L)	ORP (mV)	Temperature (°C)		
1003	13.84	220	5.19	346	0.0	2.13	420	24.95		
1008	13.84	220	5.08	347	0.6	2.06	419	24.12		
1013	13.86	220	5.05	351	6.0	2.05	417	24.08		
1018	13.87	220	5.04	356	0.0	2.03	413	24.06		

Total volume purged	
Sample appearance	CLEAR
Sample time	1020
Sample date	04/28/25

Facility Name	Welsh
Sample by	M-H H.mith

Depth to water, feet (TOC)	18.37
Measured Total Depth, feet (TOC)	22.16

Sample Location ID	AP-11
Depth to water date	4-28-25

Purge Stabilization Data

Time	Water Depth (from TOC)	Flow Rate (mL/min)	pH (S.U.)	Spec Cond (µS/cm)	Turbidity (N.T.U)	D.O. (mg/L)	ORP (mV)	Temperature (°C)		
1000	18.48	200	4.38	200	170	0.68	329	24.63		
1005	18.53	200	4.15	201	107	0.76	334	23.51		
1010	18.60	200	4.09	203	83.4	0.81	333	22.38		
1015	18.63	200	4.08	203	[redacted] 22.6	0.81	330	22.14		
1020	18.64	200	4.07	204	22.5	0.79	328	22.06		

Total volume purged	
Sample appearance	Clear
Sample time	1022
Sample date	4-28-25

Duplicate

Landfill

1210

Facility Name	AEP WMSH PP
Sample by	Kenny McDonald

Sample Location ID	AD-13

Depth to water, feet (TOC)	16.82
Measured Total Depth, feet (TOC)	19.40

Depth to water date	04/28/25

Purge Stabilization Data

Time	Water Depth (from TOC)	Flow Rate (mL/min)	pH (S.U.)	Spec Cond (µS/cm)	Turbidity (N.T.U)	D.O. (mg/L)	ORP (mV)	Temperature (°C)		
0836	17.91	100	4.85	423	25.9	2.43	446	24.21		
0841	18.83	100	4.82	427	22.8	2.17	432	23.79		
				WON'T HOLD WATER LEVEL						

Total volume purged	
Sample appearance	SLIGHTLY TURBID
Sample time	0832
Sample date	04/29/25

DTW 19.11 @ 11:05 04/28

DTW 16.86 @ 0830 04/29

Facility Name	Welsh
Sample by	Matt Hamilton

Sample Location ID	AD-14

Depth to water, feet (TOC)	15.34
Measured Total Depth, feet (TOC)	21.27

Depth to water date	4-28-25

Purge Stabilization Data

Time	Water Depth (from TOC)	Flow Rate (mL/min)	pH (S.U.)	Spec Cond (µS/cm)	Turbidity (N.T.U)	D.O. (mg/L)	ORP (mV)	Temperature (°C)		
1107	15.65	220	4.40	713	32.0	0.36	378	24.64		
1112	15.66	221	4.68	639	7.6	0.78	366	22.88		
1117	15.67	220	4.83	627	7.8	0.74	361	22.43		

Total volume purged	
Sample appearance	clear
Sample time	1119
Sample date	4-28-25

Facility Name	Welsh
Sample by	Matt Hamilton

Sample Location ID	AD-15
Depth to water date	4.28.25

Depth to water, feet (TOC)	20.85
Measured Total Depth, feet (TOC)	49.15

Purge Stabilization Data

Time	Water Depth (from TOC)	Flow Rate (mL/min)	pH (S.U.)	Spec Cond (µS/cm)	Turbidity (N.T.U)	D.O. (mg/L)	ORP (mV)	Temperature (°C)		
908	21.57	250	4.19	96	105	0.80	288	24.17		
913	21.55	280	4.21	77	66.1	0.74	250	24.23		
918	21.60	280	4.35	76	52.3	0.72	234	24.32		
923	21.60	280	4.39	75	48.3	0.64	226	24.41		
928	21.60	280	4.41	74	37.9	0.62	224	24.49		

Total volume purged	
Sample appearance	clear
Sample time	930
Sample date	4.28.25

AD-10 . 19.30

AD-2 - 14.68

AD-01 - 16.81

AD-12 - 19.77

AD-6 - 13.92

AD-18 - 6.62

AD-22 8.42

AD-23 9.07

Facility Name	Welsh
Sample by	Matt Hamilton

Sample Location ID	AD-16R

Depth to water, feet (TOC)	24.79
Measured Total Depth, feet (TOC)	31.30

Depth to water date	4-29-25

Purge Stabilization Data

Time	Water Depth (from TOC)	Flow Rate (mL/min)	pH (S.U.)	Spec Cond (µS/cm)	Turbidity (N.T.U)	D.O. (mg/L)	ORP (mV)	Temperature (°C)		
1007	25.23	150	3.54	188	2.6	1.31	454	23.91		
1012	25.32	150	3.42	207	0	1.23	454	21.88		
1017	25.38	150	3.40	214	0	1.20	454	21.65		

Total volume purged	
Sample appearance	clear
Sample time	1019
Sample date	4-29-25

Facility Name	Welsh
Sample by	Matt Hamilton

Sample Location ID	AD-17
Depth to water date	4-25-25

Depth to water, feet (TOC)	22.43
Measured Total Depth, feet (TOC)	41.47

Purge Stabilization Data

Time	Water Depth (from TOC)	Flow Rate (mL/min)	pH (S.U.)	Spec Cond (µS/cm)	Turbidity (N.T.U)	D.O. (mg/L)	ORP (mV)	Temperature (°C)		
815	23.24	100	5.89	1,980	96.9	1.33	153	23.42		
820	24.01	100	5.86	2,030	80.8	1.21	42	21.9c		
			Will not hold water level							
				Pumped dry & Sampled after						

Total volume purged	
Sample appearance	slightly turbid
Sample time	11c1
Sample date	4-24-25

CCR Groundwater Monitoring Well Inspection Form

Facility: Welsh

Sampling Period: Sept 2025

Sampling Contractor: Eagle

Signature:

Well No.	Well Locked	Fastener and Lock Functioning	Well Locked After Sampling	Access to Well Maintained	Well Casing, Protective Cover, Barriers and Pad in Good Shape	Well Properly Labeled	Well Cap Present and Vented*	Comments
AD-15	✓	✓	✓	✓	✓	✓	✓	
AD-16R	✓	✓	✓	✓	✓	✓	✓	
AD-17	✓	✓	✓	✓	✓	✓	✓	
AD-09	✓	✓	✓	✓	✓	✓	✓	
AD-08	✓	✓	✓	✓	✓	✓	✓	
AD-10	✓	✓	✓	✓	✓	✓	✓	DTW 18.94
AD-14	✓	✓	✓	✓	✓	✓	✓	
AD-06	✓	✓	✓	✓	✓	✓	✓	DTW 13.51
AD-03	✓	✓	✓	✓	✓	✓	✓	lock needs replacing soon
AD-02	✓	✓	✓	✓	✓	✓	✓	DTW 15.03
AD-11	✓	✓	✓	✓	✓	✓	✓	lock needs replacing soon
AD-07	✓	✓	✓	✓	✓	✓	✓	DTW 16.74
AD-12	✓	✓	✓	✓	✓	✓	✓	DTW 19.86

*Not all wells will be vented, especially flush mounted wells. If that is the case, please note "flush mount well" in the comments.

CCR Groundwater Monitoring Well Inspection Form

Facility: AEP Welsh PP

Sampling Period: September 2025

Sampling Contractor: Eagle

Signature:

Well No.	Well Locked	Fastener and Lock Functioning	Well Locked After Sampling	Access to Well Maintained	Well Casing, Protective Cover, Barriers and Pad in Good Shape	Well Properly Labeled	Well Cap Present and Vented*	Comments
AD-05	✓	—	✓	✓	✓	✓	✓	
AD-13	✓	✓	✓	✓	✓	✓	✓	
AD-04c	—	✓	✓	✓	✓	✓	—	
AD-04b	—	✓	✓	✓	✓	✓	✓	DTW 8.79
AD-04	—	✓	✓	✓	✓	✓	✓	DTW 17.58
AD-04a	✓	✓	✓	✓	✓	✓	✓	DTW 17.68
AD-18	✓	✓	✓	✓	✓	✓	✓	DTW 8.95
AD-22	—	—	—	—	—	✓	✓	DTW 11.45
AD-23	✓	✓	—	✓	—	✓	✓	DTW 12.91

*Not all wells will be vented, especially flush mounted wells. If that is the case, please note "flush mount well" in the comments.

Facility Name	Walsh
Sample by	M-H H-mith

Sample Location ID	AP-01
Depth to water date	9-4-25

Depth to water, feet (TOC)	17.66
Measured Total Depth, feet (TOC)	28.71

Purge Stabilization Data

Time	Water Depth (from TOC)	Flow Rate (mL/min)	pH (S.U.)	Spec Cond (µS/cm)	Turbidity (N.T.U)	D.O. (mg/L)	ORP (mV)	Temperature (°C)		
952	18.08	220	5.63	395	12	2.60	397	24.57		
957	18.18	220	5.48	4.4	15.4	0.74	395	23.54		
1002	18.23	220	5.48	406	12.5	0.65	393	23.32		
1007	18.23	220	5.49	408	12.5	0.67	392	23.27		

Total volume purged	
Sample appearance	Clear
Sample time	1009
Sample date	9-4-25

Dup - Background

1133

Facility Name	Welsh
Sample by	Matt Hamilton

Sample Location ID	AD-03

Depth to water, feet (TOC)	9.35
Measured Total Depth, feet (TOC)	20.13

Depth to water date	9-4-25

Purge Stabilization Data

Time	Water Depth (from TOC)	Flow Rate (mL/min)	pH (S.U.)	Spec Cond (µS/cm)	Turbidity (N.T.U)	D.O. (mg/L)	ORP (mV)	Temperature (°C)		
858	10.12	300	4.24	121	12.9	2.03	391	24.18		
903	10.18	300	4.01	87	12.2	2.37	414	23.46		
908	10.22	300	3.94	84	12.1	2.60	411	23.24		
913	10.25	300	3.98	81	12.1	2.65	408	23.13		

Total volume purged	
Sample appearance	Clear
Sample time	915
Sample date	9-4-25

Facility Name	Welch AP
Sample by	Brad Bates

Sample Location ID	AD-04C
Depth to water date	8/2/25

Depth to water, feet (TOC)	8.97
Measured Total Depth, feet (TOC)	18.82

Purge Stabilization Data

Time	Water Depth (from TOC)	Flow Rate (mL/min)	pH (S.U.)	Spec Cond (µS/cm)	Turbidity (N.T.U)	D.O. (mg/L)	ORP (mV)	Temperature (°C)		
1115	9.02	220	4.53	493	14.9	2.24	282	30.27		
1120	9.03	220	4.49	498	10.1	2.17	264	25.86		
1125	9.04	220	4.47	499	6.2	2.13	257	25.19		
1130	9.04	220	4.46	499	6.0	2.09	253	24.97		

Total volume purged	
Sample appearance	clear
Sample time	1135
Sample date	8/2/25

Dup BASP
124

Facility Name	Welch PP
Sample by	Brad Bates

Sample Location ID	AD-05
Depth to water date	9/2/25

Depth to water, feet (TOC)	14.56
Measured Total Depth, feet (TOC)	32.88

Purge Stabilization Data

Time	Water Depth (from TOC)	Flow Rate (mL/min)	pH (S.U.)	Spec Cond (µS/cm)	Turbidity (N.T.U)	D.O. (mg/L)	ORP (mV)	Temperature (°C)		
0858	15.31	100	5.60	392	131	1.11	274	24.55		
0903	16.02	100	5.56	384	120	1.43	298	23.82		
			Will not Hold							

Total volume purged	
Sample appearance	Turbid
Sample time	847
Sample date	9-3-25

Facility Name	~~Kaelish~~ Welsh
Sample by	Matt Hamilton

Sample Location ID	AD-08
Depth to water date	9-3-25

Depth to water, feet (TOC)	14.11
Measured Total Depth, feet (TOC)	29.04

Purge Stabilization Data

Time	Water Depth (from TOC)	Flow Rate (mL/min)	pH (S.U.)	Spec Cond (µS/cm)	Turbidity (N.T.U)	D.O. (mg/L)	ORP (mV)	Temperature (°C)		
1014	14.50	200	5.56	438	22.9	4.17	318	26.31		
1019	14.55	200	5.73	436	10.6	0.51	290	25.92		
1024	14.57	200	5.76	434	8.5	0.48	268	25.91		
1026	14.58	200	5.78	432	8.4	0.44	252	25.91		

Total volume purged	
Sample appearance	clear
Sample time	1031
Sample date	9-3-25

Facility Name	Welch
Sample by	Hamlin

Sample Location ID	AD-09

Depth to water, feet (TOC)	13.89
Measured Total Depth, feet (TOC)	36.45

Depth to water date	9-3-25

Purge Stabilization Data

Time	Water Depth (from TOC)	Flow Rate (mL/min)	pH (S.U.)	Spec Cond (µS/cm)	Turbidity (N.T.U)	D.O. (mg/L)	ORP (mV)	Temperature (°C)		
911	14.21	220	4.33	364	13.7	5.14	344	24.17		
916	14.31	220	4.36	376	8.3	0.61	322	23.84		
921	14.34	220	4.48	375	6.8	0.50	308	23.60		
926	14.36	220	4.48	375	6.9	0.48	304	23.57		

Total volume purged	
Sample appearance	clear
Sample time	926
Sample date	9-3-25

Facility Name	Welsh
Sample by	Matt Hamilton

Sample Location ID	AD-11
Depth to water date	9-4-25

Depth to water, feet (TOC)	18.06
Measured Total Depth, feet (TOC)	22.10

Purge Stabilization Data

Time	Water Depth (from TOC)	Flow Rate (mL/min)	pH (S.U.)	Spec Cond (µS/cm)	Turbidity (N.T.U)	D.O. (mg/L)	ORP (mV)	Temperature (°C)		
1051	18.22	220	4.34	251	21.1	4.36	422	27.61		
1056	18.29	220	4.17	216	9.1	0.90	425	26.64		
1101	18.30	220	4.11	212	9.0	0.86	424	25.96		

Total volume purged	
Sample appearance	clear
Sample time	1103
Sample date	9-4-25

Facility Name	Welsh PP
Sample by	Brad Bates

Sample Location ID	AO-13
Depth to water date	9/2/25

Depth to water, feet (TOC)	17.41
Measured Total Depth, feet (TOC)	19.40

Purge Stabilization Data

Time	Water Depth (from TOC)	Flow Rate (mL/min)	pH (S.U.)	Spec Cond (µS/cm)	Turbidity (N.T.U)	D.O. (mg/L)	ORP (mV)	Temperature (°C)		
0946	17.34	100	5.21	458	33.3	2.68	408	23.62		
0957	19.09	100	4.94	439	21.6	2.40	423	23.39		
			WELL NOT HOLD							
			INSUFFICIENT RECHARGE							
			Only Sampled Water Qualities							
			and Metals							

Total volume purged	
Sample appearance	Slightly turbid
Sample time	1215
Sample date	9/2/25

Facility Name	W.C.S.F
Sample by	Matt Hamilton

Depth to water, feet (TOC)	16.67
Measured Total Depth, feet (TOC)	21.27

Sample Location ID	AD-14
Depth to water date	9-3-25

Purge Stabilization Data

Time	Water Depth (from TOC)	Flow Rate (mL/min)	pH (S.U.)	Spec Cond (µS/cm)	Turbidity (N.T.U)	D.O. (mg/L)	ORP (mV)	Temperature (°C)		
1116	16.46	220	4.52	812	45.9	0.54	343	26.37		
1121	17.12	220	4.41	716	20.1	0.29	329	25.23		
1126	17.12	220	4.39	674	11.8	0.27	322	24.69		
1131	17.12	220	4.37	651	11.6	0.26	318	24.68		

Total volume purged	
Sample appearance	Clear
Sample time	1133
Sample date	9-3-25

Dap - Landfill

1228

Facility Name	Welsh
Sample by	Matt Hamilton

Sample Location ID	AD-15

Depth to water, feet (TOC)	21.66
Measured Total Depth, feet (TOC)	49.15

Depth to water date	9-2-25

Purge Stabilization Data

Time	Water Depth (from TOC)	Flow Rate (mL/min)	pH (S.U.)	Spec Cond (µS/cm)	Turbidity (N.T.U)	D.O. (mg/L)	ORP (mV)	Temperature (°C)		
945	22.07	300	4.33	175	154	4.22	254	29.00		
950	22.14	300	4.19	162	60.3	2.99	251	27.16		
955	22.14	300	4.23	154	29.5	1.87	240	26.38		
1000	22.14	300	4.28	149	12.3	1.25	235	25.25		
1005	22.15	300	4.33	145	10.0	1.20	234	24.99		
1010	22.15	300	4.35	142	9.9	1.18	233	24.86		

Total volume purged	
Sample appearance	clear
Sample time	1012
Sample date	9-2-25

Duplicate - PBAP
125

Facility Name	Wash
Sample by	M-H Hamilton

Sample Location ID	AP-169

Depth to water, feet (TOC)	26.01
Measured Total Depth, feet (TOC)	31.30

Depth to water date	4-2-25

Purge Stabilization Data

Time	Water Depth (from TOC)	Flow Rate (mL/min)	pH (S.U.)	Spec Cond (µS/cm)	Turbidity (N.T.U)	D.O. (mg/L)	ORP (mV)	Temperature (°C)		
1111	26.24	220	3.51	167	7.11	2.33	384	24.42		
1116	26.43	220	3.36	163	4.19	1.78	394	25.75		
1121	26.52	220	3.33	149	4.18	1.74	404	25.51		

Total volume purged	
Sample appearance	Clear
Sample time	1123
Sample date	4-7-25

Facility Name	Welch
Sample by	Matt Hamilton

Sample Location ID	AD-17

Depth to water, feet (TOC)	22.66
Measured Total Depth, feet (TOC)	41.47

Depth to water date	9-2-25

Purge Stabilization Data

Time	Water Depth (from TOC)	Flow Rate (mL/min)	pH (S.U.)	Spec Cond (µS/cm)	Turbidity (N.T.U)	D.O. (mg/L)	ORP (mV)	Temperature (°C)		
845	23.35	100	5.34	1,360	40.1	2.93	245	27.91		
850	24.05	100	5.59	1,520	32.5	2.58	99	24.12		
				Will not Hold						

Total volume purged	
Sample appearance	clear
Sample time	1216
Sample date	9-2-25

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 250454 **Customer: Welsh Power Station** **Date Reported: 03/19/2025**

Customer Sample ID: AD-8 (PBAP)
Customer Description: TG-32
Lab Number: 250454-001
Preparation:
Date Collected: 02/10/2025 11:29 EST
Date Received: 02/14/2025 10:20 EST

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	0.013	µg/L	1	0.100	0.008	J1	GES	02/24/2025 09:50	EPA 200.8-1994, Rev. 5.4
Arsenic	0.21	µg/L	1	0.10	0.03		GES	02/24/2025 09:50	EPA 200.8-1994, Rev. 5.4
Barium	23.6	µg/L	1	0.20	0.05		GES	02/24/2025 09:50	EPA 200.8-1994, Rev. 5.4
Beryllium	<0.07	µg/L	10	0.50	0.07	U1	GES	02/24/2025 11:42	EPA 200.8-1994, Rev. 5.4
Boron	1.09	mg/L	1	0.050	0.007		GES	02/24/2025 09:50	EPA 200.8-1994, Rev. 5.4
Cadmium	0.027	µg/L	1	0.020	0.004		GES	02/24/2025 09:50	EPA 200.8-1994, Rev. 5.4
Calcium	16.7	mg/L	1	0.05	0.02		GES	02/24/2025 09:50	EPA 200.8-1994, Rev. 5.4
Chromium	0.25	µg/L	1	0.30	0.07	J1	GES	02/24/2025 09:50	EPA 200.8-1994, Rev. 5.4
Cobalt	2.72	µg/L	1	0.020	0.005		GES	02/24/2025 09:50	EPA 200.8-1994, Rev. 5.4
Lead	<0.05	µg/L	1	0.20	0.05	U1	GES	02/24/2025 09:50	EPA 200.8-1994, Rev. 5.4
Lithium	0.0791	mg/L	10	0.0030	0.0006		GES	02/24/2025 11:42	EPA 200.8-1994, Rev. 5.4
Magnesium	7.87	mg/L	1	0.100	0.009		GES	02/24/2025 09:50	EPA 200.8-1994, Rev. 5.4
Mercury	<2	ng/L	1	5	2	U1	RLP	02/18/2025 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	0.2	µg/L	1	0.5	0.1	J1	GES	02/24/2025 09:50	EPA 200.8-1994, Rev. 5.4
Potassium	3.45	mg/L	1	0.10	0.01		GES	02/24/2025 09:50	EPA 200.8-1994, Rev. 5.4
Selenium	<0.04	µg/L	1	0.50	0.04	U1	GES	02/24/2025 09:50	EPA 200.8-1994, Rev. 5.4
Sodium	42.5	mg/L	1	0.20	0.02		GES	02/24/2025 09:50	EPA 200.8-1994, Rev. 5.4
Strontium	0.165	mg/L	1	0.00200	0.00005		GES	02/24/2025 09:50	EPA 200.8-1994, Rev. 5.4
Thallium	0.13	µg/L	1	0.20	0.02	J1	GES	02/24/2025 09:50	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method
Radium-226	0.35	pCi/L	0.10	0.21	P1	ST	02/28/2025 10:42	SW-846 9315-1986, Rev. 0
Carrier Recovery	83.2	%						
Radium-228	1.33	pCi/L	0.13	0.36		TTP	03/03/2025 14:32	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	98.6	%						

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 250454 **Customer: Welsh Power Station** **Date Reported: 03/19/2025**

Customer Sample ID: AD-9 (PABP)
Customer Description: TG-32
Lab Number: 250454-002
Preparation:
Date Collected: 02/10/2025 10:25 EST
Date Received: 02/14/2025 10:20 EST

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	0.009	µg/L	1	0.100	0.008	J1	GES	02/24/2025 09:55	EPA 200.8-1994, Rev. 5.4
Arsenic	0.28	µg/L	1	0.10	0.03		GES	02/24/2025 09:55	EPA 200.8-1994, Rev. 5.4
Barium	94.2	µg/L	1	0.20	0.05		GES	02/24/2025 09:55	EPA 200.8-1994, Rev. 5.4
Beryllium	0.79	µg/L	10	0.50	0.07		GES	02/24/2025 11:47	EPA 200.8-1994, Rev. 5.4
Boron	0.099	mg/L	1	0.050	0.007		GES	02/24/2025 09:55	EPA 200.8-1994, Rev. 5.4
Cadmium	0.188	µg/L	1	0.020	0.004		GES	02/24/2025 09:55	EPA 200.8-1994, Rev. 5.4
Calcium	45.6	mg/L	1	0.05	0.02		GES	02/24/2025 09:55	EPA 200.8-1994, Rev. 5.4
Chromium	0.68	µg/L	1	0.30	0.07		GES	02/24/2025 09:55	EPA 200.8-1994, Rev. 5.4
Cobalt	17.2	µg/L	1	0.020	0.005		GES	02/24/2025 09:55	EPA 200.8-1994, Rev. 5.4
Lead	0.07	µg/L	1	0.20	0.05	J1	GES	02/24/2025 09:55	EPA 200.8-1994, Rev. 5.4
Lithium	0.287	mg/L	10	0.0030	0.0006		GES	02/24/2025 11:47	EPA 200.8-1994, Rev. 5.4
Magnesium	12.1	mg/L	1	0.100	0.009		GES	02/24/2025 09:55	EPA 200.8-1994, Rev. 5.4
Mercury	4	ng/L	1	5	2	J1	RLP	02/18/2025 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	02/24/2025 09:55	EPA 200.8-1994, Rev. 5.4
Potassium	3.93	mg/L	1	0.10	0.01		GES	02/24/2025 09:55	EPA 200.8-1994, Rev. 5.4
Selenium	0.31	µg/L	1	0.50	0.04	J1	GES	02/24/2025 09:55	EPA 200.8-1994, Rev. 5.4
Sodium	50.5	mg/L	1	0.20	0.02		GES	02/24/2025 09:55	EPA 200.8-1994, Rev. 5.4
Strontium	2.10	mg/L	10	0.0200	0.0005		GES	02/24/2025 11:47	EPA 200.8-1994, Rev. 5.4
Thallium	0.20	µg/L	1	0.20	0.02		GES	02/24/2025 09:55	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method
Radium-226	0.79	pCi/L	0.14	0.22		ST	02/28/2025 10:42	SW-846 9315-1986, Rev. 0
Carrier Recovery	94.6	%						
Radium-228	2.03	pCi/L	0.16	0.45		TTP	03/03/2025 14:32	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	93.6	%						

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 250454 **Customer: Welsh Power Station** **Date Reported: 03/19/2025**

Customer Sample ID: AD-11 (LF) Customer Description: TG-32
Lab Number: 250454-003 Preparation:
Date Collected: 02/10/2025 11:28 EST Date Received: 02/14/2025 10:20 EST

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	0.008	µg/L	1	0.100	0.008	J1	GES	02/24/2025 10:00	EPA 200.8-1994, Rev. 5.4
Arsenic	0.12	µg/L	1	0.10	0.03		GES	02/24/2025 10:00	EPA 200.8-1994, Rev. 5.4
Barium	25.2	µg/L	1	0.20	0.05		GES	02/24/2025 10:00	EPA 200.8-1994, Rev. 5.4
Beryllium	0.150	µg/L	1	0.050	0.007		GES	02/24/2025 10:00	EPA 200.8-1994, Rev. 5.4
Boron	0.412	mg/L	1	0.050	0.007		GES	02/24/2025 10:00	EPA 200.8-1994, Rev. 5.4
Cadmium	0.026	µg/L	1	0.020	0.004		GES	02/24/2025 10:00	EPA 200.8-1994, Rev. 5.4
Calcium	0.98	mg/L	1	0.05	0.02		GES	02/24/2025 10:00	EPA 200.8-1994, Rev. 5.4
Chromium	0.33	µg/L	1	0.30	0.07		GES	02/24/2025 10:00	EPA 200.8-1994, Rev. 5.4
Cobalt	1.47	µg/L	1	0.020	0.005		GES	02/24/2025 10:00	EPA 200.8-1994, Rev. 5.4
Lead	0.15	µg/L	1	0.20	0.05	J1	GES	02/24/2025 10:00	EPA 200.8-1994, Rev. 5.4
Lithium	0.0110	mg/L	1	0.00030	0.00006		GES	02/24/2025 10:00	EPA 200.8-1994, Rev. 5.4
Magnesium	1.04	mg/L	1	0.100	0.009		GES	02/24/2025 10:00	EPA 200.8-1994, Rev. 5.4
Mercury	4	ng/L	1	5	2	J1	RLP	02/18/2025 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	02/24/2025 10:00	EPA 200.8-1994, Rev. 5.4
Potassium	0.69	mg/L	1	0.10	0.01		GES	02/24/2025 10:00	EPA 200.8-1994, Rev. 5.4
Selenium	0.12	µg/L	1	0.50	0.04	J1	GES	02/24/2025 10:00	EPA 200.8-1994, Rev. 5.4
Sodium	39.7	mg/L	1	0.20	0.02		GES	02/24/2025 10:00	EPA 200.8-1994, Rev. 5.4
Strontium	0.0198	mg/L	1	0.00200	0.00005		GES	02/24/2025 10:00	EPA 200.8-1994, Rev. 5.4
Thallium	0.07	µg/L	1	0.20	0.02	J1	GES	02/24/2025 10:00	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method
Radium-226	0.64	pCi/L	0.14	0.20		ST	02/28/2025 10:42	SW-846 9315-1986, Rev. 0
Carrier Recovery	78.6	%						
Radium-228	1.84	pCi/L	0.14	0.40		TTP	03/03/2025 14:32	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	97.6	%						

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.

AMERICAN ELECTRIC POWER

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Water Analysis Report

Job ID: 250454 **Customer: Welsh Power Station** **Date Reported: 03/19/2025**

Customer Sample ID: AD-13 (LF)
Customer Description: TG-32
Lab Number: 250454-004
Preparation:
Date Collected: 02/10/2025 12:22 EST
Date Received: 02/14/2025 10:20 EST

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	0.012	µg/L	1	0.100	0.008	J1	GES	02/24/2025 10:06	EPA 200.8-1994, Rev. 5.4
Arsenic	0.32	µg/L	1	0.10	0.03		GES	02/24/2025 10:06	EPA 200.8-1994, Rev. 5.4
Barium	17.6	µg/L	1	0.20	0.05		GES	02/24/2025 10:06	EPA 200.8-1994, Rev. 5.4
Beryllium	0.63	µg/L	10	0.50	0.07		GES	02/24/2025 11:53	EPA 200.8-1994, Rev. 5.4
Boron	0.973	mg/L	1	0.050	0.007		GES	02/24/2025 10:06	EPA 200.8-1994, Rev. 5.4
Cadmium	0.149	µg/L	1	0.020	0.004		GES	02/24/2025 10:06	EPA 200.8-1994, Rev. 5.4
Calcium	4.71	mg/L	1	0.05	0.02		GES	02/24/2025 10:06	EPA 200.8-1994, Rev. 5.4
Chromium	0.39	µg/L	1	0.30	0.07		GES	02/24/2025 10:06	EPA 200.8-1994, Rev. 5.4
Cobalt	5.80	µg/L	1	0.020	0.005		GES	02/24/2025 10:06	EPA 200.8-1994, Rev. 5.4
Lead	0.36	µg/L	1	0.20	0.05		GES	02/24/2025 10:06	EPA 200.8-1994, Rev. 5.4
Lithium	0.0446	mg/L	10	0.0030	0.0006		GES	02/24/2025 11:53	EPA 200.8-1994, Rev. 5.4
Magnesium	2.99	mg/L	1	0.100	0.009		GES	02/24/2025 10:06	EPA 200.8-1994, Rev. 5.4
Mercury	<2	ng/L	1	5	2	U1	RLP	02/18/2025 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	02/24/2025 10:06	EPA 200.8-1994, Rev. 5.4
Potassium	2.32	mg/L	1	0.10	0.01		GES	02/24/2025 10:06	EPA 200.8-1994, Rev. 5.4
Selenium	0.43	µg/L	1	0.50	0.04	J1	GES	02/24/2025 10:06	EPA 200.8-1994, Rev. 5.4
Sodium	68.3	mg/L	1	0.20	0.02		GES	02/24/2025 10:06	EPA 200.8-1994, Rev. 5.4
Strontium	0.0890	mg/L	1	0.00200	0.00005		GES	02/24/2025 10:06	EPA 200.8-1994, Rev. 5.4
Thallium	0.16	µg/L	1	0.20	0.02	J1	GES	02/24/2025 10:06	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method
Radium-226	0.62	pCi/L	0.14	0.20		ST	02/28/2025 10:42	SW-846 9315-1986, Rev. 0
Carrier Recovery	82.8	%						
Radium-228	2.62	pCi/L	0.20	0.60		TTP	03/03/2025 14:32	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	95.2	%						

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 250454 **Customer: Welsh Power Station** **Date Reported: 03/19/2025**

Customer Sample ID: AD-14 (LF)
Customer Description: TG-32
Lab Number: 250454-005
Preparation:
Date Collected: 02/10/2025 12:05 EST
Date Received: 02/14/2025 10:20 EST

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	0.022	µg/L	1	0.100	0.008	J1	GES	02/24/2025 10:11	EPA 200.8-1994, Rev. 5.4
Arsenic	0.35	µg/L	1	0.10	0.03		GES	02/24/2025 10:11	EPA 200.8-1994, Rev. 5.4
Barium	42.0	µg/L	1	0.20	0.05		GES	02/24/2025 10:11	EPA 200.8-1994, Rev. 5.4
Beryllium	1.03	µg/L	10	0.50	0.07		GES	02/24/2025 11:58	EPA 200.8-1994, Rev. 5.4
Boron	1.05	mg/L	1	0.050	0.007		GES	02/24/2025 10:11	EPA 200.8-1994, Rev. 5.4
Cadmium	1.67	µg/L	1	0.020	0.004		GES	02/24/2025 10:11	EPA 200.8-1994, Rev. 5.4
Calcium	11.1	mg/L	1	0.05	0.02		GES	02/24/2025 10:11	EPA 200.8-1994, Rev. 5.4
Chromium	0.37	µg/L	1	0.30	0.07		GES	02/24/2025 10:11	EPA 200.8-1994, Rev. 5.4
Cobalt	12.9	µg/L	1	0.020	0.005		GES	02/24/2025 10:11	EPA 200.8-1994, Rev. 5.4
Lead	0.18	µg/L	1	0.20	0.05	J1	GES	02/24/2025 10:11	EPA 200.8-1994, Rev. 5.4
Lithium	0.0159	mg/L	10	0.0030	0.0006		GES	02/24/2025 11:58	EPA 200.8-1994, Rev. 5.4
Magnesium	6.78	mg/L	1	0.100	0.009		GES	02/24/2025 10:11	EPA 200.8-1994, Rev. 5.4
Mercury	277	ng/L	4	20	8		RLP	02/18/2025 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	02/24/2025 10:11	EPA 200.8-1994, Rev. 5.4
Potassium	0.86	mg/L	1	0.10	0.01		GES	02/24/2025 10:11	EPA 200.8-1994, Rev. 5.4
Selenium	3.02	µg/L	1	0.50	0.04		GES	02/24/2025 10:11	EPA 200.8-1994, Rev. 5.4
Sodium	66.8	mg/L	1	0.20	0.02		GES	02/24/2025 10:11	EPA 200.8-1994, Rev. 5.4
Strontium	0.204	mg/L	1	0.00200	0.00005		GES	02/24/2025 10:11	EPA 200.8-1994, Rev. 5.4
Thallium	0.09	µg/L	1	0.20	0.02	J1	GES	02/24/2025 10:11	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method
Radium-226	1.07	pCi/L	0.17	0.24		ST	02/28/2025 10:42	SW-846 9315-1986, Rev. 0
Carrier Recovery	86.7	%						
Radium-228	1.80	pCi/L	0.14	0.38		TTP	03/03/2025 14:32	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	90.6	%						

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 250454 **Customer: Welsh Power Station** **Date Reported: 03/19/2025**

Customer Sample ID: AD-15 (PBAP)
Customer Description: TG-32
Lab Number: 250454-006
Preparation:
Date Collected: 02/10/2025 10:36 EST
Date Received: 02/14/2025 10:20 EST

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	0.012	µg/L	1	0.100	0.008	J1	GES	02/24/2025 10:17	EPA 200.8-1994, Rev. 5.4
Arsenic	1.14	µg/L	1	0.10	0.03		GES	02/24/2025 10:17	EPA 200.8-1994, Rev. 5.4
Barium	67.3	µg/L	1	0.20	0.05		GES	02/24/2025 10:17	EPA 200.8-1994, Rev. 5.4
Beryllium	0.22	µg/L	10	0.50	0.07	J1	GES	02/24/2025 12:04	EPA 200.8-1994, Rev. 5.4
Boron	0.035	mg/L	1	0.050	0.007	J1	GES	02/24/2025 10:17	EPA 200.8-1994, Rev. 5.4
Cadmium	0.010	µg/L	1	0.020	0.004	J1	GES	02/24/2025 10:17	EPA 200.8-1994, Rev. 5.4
Calcium	2.57	mg/L	1	0.05	0.02		GES	02/24/2025 10:17	EPA 200.8-1994, Rev. 5.4
Chromium	0.22	µg/L	1	0.30	0.07	J1	GES	02/24/2025 10:17	EPA 200.8-1994, Rev. 5.4
Cobalt	2.69	µg/L	1	0.020	0.005		GES	02/24/2025 10:17	EPA 200.8-1994, Rev. 5.4
Lead	0.07	µg/L	1	0.20	0.05	J1	GES	02/24/2025 10:17	EPA 200.8-1994, Rev. 5.4
Lithium	0.0016	mg/L	10	0.0030	0.0006	J1	GES	02/24/2025 12:04	EPA 200.8-1994, Rev. 5.4
Magnesium	3.14	mg/L	1	0.100	0.009		GES	02/24/2025 10:17	EPA 200.8-1994, Rev. 5.4
Mercury	<2	ng/L	1	5	2	U1	RLP	02/18/2025 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	02/24/2025 10:17	EPA 200.8-1994, Rev. 5.4
Potassium	0.40	mg/L	1	0.10	0.01		GES	02/24/2025 10:17	EPA 200.8-1994, Rev. 5.4
Selenium	0.17	µg/L	1	0.50	0.04	J1	GES	02/24/2025 10:17	EPA 200.8-1994, Rev. 5.4
Sodium	11.2	mg/L	1	0.20	0.02		GES	02/24/2025 10:17	EPA 200.8-1994, Rev. 5.4
Strontium	0.0341	mg/L	1	0.00200	0.00005		GES	02/24/2025 10:17	EPA 200.8-1994, Rev. 5.4
Thallium	0.05	µg/L	1	0.20	0.02	J1	GES	02/24/2025 10:17	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method
Radium-226	0.65	pCi/L	0.12	0.15		ST	02/28/2025 10:42	SW-846 9315-1986, Rev. 0
Carrier Recovery	96.3	%						
Radium-228	1.92	pCi/L	0.15	0.42		TTP	03/03/2025 14:32	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	98.5	%						

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 250454 **Customer: Welsh Power Station** **Date Reported: 03/19/2025**

Customer Sample ID: DUPLICATE
Customer Description: TG-32
Lab Number: 250454-007
Preparation:
Date Collected: 02/10/2025 13:00 EST
Date Received: 02/14/2025 10:20 EST

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	0.010	µg/L	1	0.100	0.008	J1	GES	02/24/2025 10:22	EPA 200.8-1994, Rev. 5.4
Arsenic	0.20	µg/L	1	0.10	0.03		GES	02/24/2025 10:22	EPA 200.8-1994, Rev. 5.4
Barium	23.5	µg/L	1	0.20	0.05		GES	02/24/2025 10:22	EPA 200.8-1994, Rev. 5.4
Beryllium	<0.07	µg/L	10	0.50	0.07	U1	GES	02/24/2025 12:09	EPA 200.8-1994, Rev. 5.4
Boron	1.07	mg/L	1	0.050	0.007		GES	02/24/2025 10:22	EPA 200.8-1994, Rev. 5.4
Cadmium	0.023	µg/L	1	0.020	0.004		GES	02/24/2025 10:22	EPA 200.8-1994, Rev. 5.4
Calcium	16.7	mg/L	1	0.05	0.02		GES	02/24/2025 10:22	EPA 200.8-1994, Rev. 5.4
Chromium	0.33	µg/L	1	0.30	0.07		GES	02/24/2025 10:22	EPA 200.8-1994, Rev. 5.4
Cobalt	2.76	µg/L	1	0.020	0.005		GES	02/24/2025 10:22	EPA 200.8-1994, Rev. 5.4
Lead	<0.05	µg/L	1	0.20	0.05	U1	GES	02/24/2025 10:22	EPA 200.8-1994, Rev. 5.4
Lithium	0.0802	mg/L	10	0.0030	0.0006		GES	02/24/2025 12:09	EPA 200.8-1994, Rev. 5.4
Magnesium	8.03	mg/L	1	0.100	0.009		GES	02/24/2025 10:22	EPA 200.8-1994, Rev. 5.4
Mercury	<2	ng/L	1	5	2	U1	RLP	02/18/2025 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	02/24/2025 10:22	EPA 200.8-1994, Rev. 5.4
Potassium	3.43	mg/L	1	0.10	0.01		GES	02/24/2025 10:22	EPA 200.8-1994, Rev. 5.4
Selenium	0.05	µg/L	1	0.50	0.04	J1	GES	02/24/2025 10:22	EPA 200.8-1994, Rev. 5.4
Sodium	43.5	mg/L	1	0.20	0.02		GES	02/24/2025 10:22	EPA 200.8-1994, Rev. 5.4
Strontium	0.161	mg/L	1	0.00200	0.00005		GES	02/24/2025 10:22	EPA 200.8-1994, Rev. 5.4
Thallium	0.09	µg/L	1	0.20	0.02	J1	GES	02/24/2025 10:22	EPA 200.8-1994, Rev. 5.4

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 250454 **Customer: Welsh Power Station** **Date Reported: 03/19/2025**

Customer Sample ID: EQUIPMENT BLANK
Customer Description: TG-32
Lab Number: 250454-008
Preparation:
Date Collected: 02/10/2025 12:27 EST
Date Received: 02/14/2025 10:20 EST

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.008	µg/L	1	0.100	0.008	U1	GES	02/24/2025 10:28	EPA 200.8-1994, Rev. 5.4
Arsenic	<0.03	µg/L	1	0.10	0.03	U1	GES	02/24/2025 10:28	EPA 200.8-1994, Rev. 5.4
Barium	0.13	µg/L	1	0.20	0.05	J1	GES	02/24/2025 10:28	EPA 200.8-1994, Rev. 5.4
Beryllium	<0.007	µg/L	1	0.050	0.007	U1	GES	02/24/2025 10:28	EPA 200.8-1994, Rev. 5.4
Boron	0.014	mg/L	1	0.050	0.007	J1	GES	02/24/2025 10:28	EPA 200.8-1994, Rev. 5.4
Cadmium	<0.004	µg/L	1	0.020	0.004	U1	GES	02/24/2025 10:28	EPA 200.8-1994, Rev. 5.4
Calcium	0.05	mg/L	1	0.05	0.02		GES	02/24/2025 10:28	EPA 200.8-1994, Rev. 5.4
Chromium	0.29	µg/L	1	0.30	0.07	J1	GES	02/24/2025 10:28	EPA 200.8-1994, Rev. 5.4
Cobalt	0.011	µg/L	1	0.020	0.005	J1	GES	02/24/2025 10:28	EPA 200.8-1994, Rev. 5.4
Lead	<0.05	µg/L	1	0.20	0.05	U1	GES	02/24/2025 10:28	EPA 200.8-1994, Rev. 5.4
Lithium	0.00010	mg/L	1	0.00030	0.00006	J1	GES	02/24/2025 10:28	EPA 200.8-1994, Rev. 5.4
Magnesium	0.024	mg/L	1	0.100	0.009	J1	GES	02/24/2025 10:28	EPA 200.8-1994, Rev. 5.4
Mercury	<2	ng/L	1	5	2	U1	RLP	02/18/2025 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	02/24/2025 10:28	EPA 200.8-1994, Rev. 5.4
Potassium	<0.01	mg/L	1	0.10	0.01	U1	GES	02/24/2025 10:28	EPA 200.8-1994, Rev. 5.4
Selenium	<0.04	µg/L	1	0.50	0.04	U1	GES	02/24/2025 10:28	EPA 200.8-1994, Rev. 5.4
Sodium	0.13	mg/L	1	0.20	0.02	J1	GES	02/24/2025 10:28	EPA 200.8-1994, Rev. 5.4
Strontium	0.00052	mg/L	1	0.00200	0.00005	J1	GES	02/24/2025 10:28	EPA 200.8-1994, Rev. 5.4
Thallium	<0.02	µg/L	1	0.20	0.02	U1	GES	02/24/2025 10:28	EPA 200.8-1994, Rev. 5.4

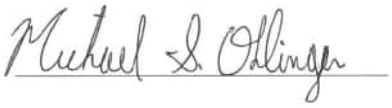
Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 250454 **Customer: Welsh Power Station** **Date Reported: 03/19/2025**

Report Verification

This report and the above data have been confirmed by the following analyst.



Michael Ohlinger, Chemist
Email: msohlinger@aep.com
Phone: 614-836-4184
Audinet: 8-210-4184

THIS TEST REPORT RELATES ONLY TO THE ITEMS TESTED AND SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT WRITTEN APPROVAL OF THE LABORATORY. ALL TEST RESULTS MEET ALL OF THE REQUIREMENTS OF THE ACCREDITING AUTHORITY, UNLESS OTHERWISE NOTED. ALL TIMES LISTED ARE IN THE EASTERN TIME ZONE.

Data Qualifer Legend

J1 - Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.

U1 - Not detected at or below method detection limit (MDL).

P1 - The precision between duplicate results was above acceptance limits.

Chain of Custody Record

Program: Coal Combustion Residuals (CCR)

Dolan Chemical Laboratory (DCL)
4001 Bixby Road
Groveport, Ohio 43125
Contacts: Jonathan Barnhill (318-673-3803)
Michael Ohlinger (614-836-4184)

Project Name: Welsh Annual Screening
Contact Name: Pryce Warren
Contact Phone: 325-310-6668
Sampler(s): Matt Hamilton Kenny McDonald

Analysis Turnaround Time (In Calendar Days)

Site Contact:

Date:

For Lab Use Only:
COC/Order #: 250454

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Sampler(s) Initials	250 mL bottle, pH<2, HNO_3: B, Ca, Li, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Mo, Se, Tl and Na, K, Mg, Sr (18)	Field-filter 500 mL bottle, then pH<2, HNO_3: dissolved Fe and Mn	1 L bottle, Cool, 0-6°C: TDS, F, Cl, SO_4, Br, and Alkalinity	Three (six every 10th*) 1 L bottles, pH<2, HNO_3: Ra-226, Ra-228 (2)	250 mL Glass bottle, HCL**, pH<2: Hg (1)			Sample Specific Notes
AD-8 (PBAP)	2/10/2025	1029	G	GW	5		X			X	X			
AD-9 (PBAP)	2/10/2025	925	G	GW	8		X			X	X			
AD-11 (LF)	2/10/2025	1028	G	GW	5		X			X	X			
AD-13 (LF)	2/10/2025	1122	G	GW	5		X			X	X			
AD-14 (LF)	2/10/2025	1105	G	GW	5		X			X	X			
AD-15 (PBAP)	2/10/2025	936	G	GW	5		X			X	X			
DUPLICATE	2/10/2025	1200	G	GW	2		X				X			
EQUIPMENT BLANK	2/10/2025	1127	G	GW	2		X				X			
							4	F4	1	4	2			

Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other _____; F= filter in field

* *Six 1L Bottles must be collected for Radium for every 10th sample.*

Special Instructions/QC Requirements & Comments:

Relinquished by: Matt Hamilton	Company: Eagle	Date/Time: 2-11-25 15:00	Received by:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received at Laboratory by: Michael Ohlinger	Date/Time: 2/14/25 10:20

Chain of Custody Record

Program: Coal Combustion Residuals (CCR)

Dolan Chemical Laboratory (DCL)
4001 Bixby Road
Groveport, Ohio 43125
Contacts: Jonathan Barnhill (318-673-3803)
Michael Ohlinger (614-836-4184)

Project Name: Welsh Annual Screening
Contact Name: Pryce Warren
Contact Phone: 325-310-6668
Sampler(s): Matt Hamilton Kenny McDonald

Site Contact:

Date:

For Lab Use Only:
COC/Order #:

Analysis Turnaround Time (in Calendar Days)

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Sampler(s) Initials	250 mL bottle, pH<2, HNO_3 B, Ca, Li, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Mo, Se, Tl and Na, K, Mg, Sr	Field-filter 500 mL bottle, then pH<2, HNO_3 dissolved Fe and Mn	1 L bottle, Cool, 0-6°C TDS, F, Cl, SO_4, Br, and Alkalinity	Three (six every 10th*) 1 L bottles, pH<2, HNO_3 Ra-226, Ra-228	250 mL Glass bottle, HCL**, pH<2 Hg			Sample Specific Notes:
AD-8 (PBAP)	2/10/2025	1029	G	GW	5		X			X	X			
AD-9 (PBAP)	2/10/2025	925	G	GW	8		X			X	X			
AD-11 (LF)	2/10/2025	1028	G	GW	5		X			X	X			
AD-13 (LF)	2/10/2025	1122	G	GW	5		X			X	X			
AD-14 (LF)	2/10/2025	1105	G	GW	5		X			X	X			
AD-15 (PBAP)	2/10/2025	936	G	GW	5		X			X	X			
DUPLICATE	2/10/2025	1200	G	GW	2		X				X			
EQUIPMENT BLANK	2/10/2025	1127	G	GW	2		X				X			
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____; F= filter in field							4	F4	1	4	2			

** Six 1L Bottles must be collected for Radium for every 10th sample.*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Date/Time:
Matt Tendon	Eagle	2-11-25 1500		
Relinquished by:	Company:	Date/Time:	Received by:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Date/Time:
				02/12/25 10:30 Am

WATER & WASTE SAMPLE RECEIPT FORM

Form SOP-7102 Sample Receipt Form Rev 10, 01 03 25

Package Type: (Cooler) Box Bag Envelope

Delivery Type: UPS (FedEx) USPS Other _____

Plant/Customer Welsh **Total # of Containers RECEIVED in Job:** 13

Opened By MSO

Date/Time 2/14/25 10:20

Were all required temperatures, per BN-water-900, T≤6°C *w/o sample freezing*? Y / N or (N/A)

Initial/Date: MSO 2/14/25 on ice / (no ice)

If No, specify each deviation(s) on back of form. (IR Gun Ser# 240093386, *Expir.* 02/14/2025)

Was container in good condition? (Y) / N Comments

Was Chain of Custody received? (Y) / N Comments _____

Requested turnaround: Routine If **RUSH**, who was notified? _____

pH (15 min) Cr^{+6} (pres) (24 hr) NO_2 or NO_3 (48 hr) *ortho*-PO_4 (48 hr) Hg-diss (pres) (48 hr)

Were pH requirements met for required samples, per BN-water-900? (Y) / N or N/A

Initial/Date: MSO 2/14/25

***pH paper*:** mfr Lab Rat, PN 4801 LOT# X000RWDG21 EXPIR DATE 11/30/2025

*** Note changes to pH paper in comments below*

Was Add'l Preservative needed? Y / (N) If Yes: By whom & when: _____ (See Prep Book)

(Dissolved) Is sample filtration requested? (Y) / N Comments _____ (See Prep Book)

Was COC filled out properly? (Y) / N Comments _____

Were samples labeled properly? (Y) / N Comments _____

Were correct containers used? (Y) / N Comments _____

Was the customer contacted? If Yes: Person Contacted: _____

Lab ID# 250454 Initial & Date & Time : _____

Logged by MJD Comments: We only received radium samples for AO-8, AO-9, AO-13, AO15

(Record Test Count on back of form)

1 1 1 1

5 bottles 3 bottles 3 bottles 1 bottle

Total # of Containers LISTED on COC: 37

WATER & WASTE SAMPLE RECEIPT FORM (CONT)

Form SOP-7102 Sample Receipt Form Rev 10.01 03/25

REMINDER Document the pertinent sample integrity information and deviations in sample receipt (as noted above) in the Sample or Job "Comments" field in the LIMS. **Comments below.**

i.e. Mark "LF" if needs Lab filtered, Temperature or Preservative deviation, Preserved upon arrival , etc.

JOB # : 250454 **Initial/ Date:** MSO 2/24/25 **Peer Review Initial/ Date:** _____

Login Test Count from COC	LIMS Sample ID (or COC Sample Name)	Comments /Nonconformities	Peer Review Test Count from COC
21	250454-001		
21	250454-002		
21	250454-003		
21	250454-004		
21	250454-005		
21	250454-006		
19	250454-007		
19	250454-008		
	~~250454~~		

WATER & WASTE SAMPLE RECEIPT FORM

Form SOP-7102 Sample Receipt Form Rev 10, 01/03/25

Package Type: (Cooler) Box Bag Envelope

Delivery Type: UPS (FedEx) USPS Other _____

Plant/Customer Welsh **Total # of Containers RECEIVED in Job:** 24

Opened By Misgina

Date/Time 02/17/2025 10:30 Am

Were all required temperatures, per BN-water-900, T≤6°C *w/o sample freezing*? Y / N or (N/A)

Initial/Date: mbk 02/17/25 on ice / (no ice)

If No, specify each deviation(s) on back of form. (IR Gun Ser# 240093386, *Expir.* 02/14/2025)

Was container in good condition? (Y) / N Comments

Was Chain of Custody received? (Y) / N Comments _____

Requested turnaround: Routine If **RUSH**, who was notified? _____

pH (15 min)	Cr^{+5} (pres) (24 hr)	NO_2 or NO_3 (48 hr)	*ortho*-PO_4 (48 hr)	Hg-diss (pres) (48 hr)

Were pH requirements met for required samples, per BN-water-900? (Y) / N or N/A

Initial/Date: mbk 02/17/25

pH paper mfr Lab Rat PN 4801 LOT# X000RWDG21 EXPIR DATE 11/30/2025

*** Note changes to pH paper in comments below*

Was Add'l Preservative needed? Y / (N) If Yes: By whom & when: _____ (See Prep Book)

(Dissolved) Is sample filtration requested? Y / N Comments _____ (See Prep Book)

Was COC filled out properly? (Y) / N Comments _____

Were samples labeled properly? (Y) / N Comments _____

Were correct containers used? (Y) / N Comments _____

Was the customer contacted? If Yes Person Contacted: _____

Lab ID# 250454 Initial & Date & Time : _____

Logged by MSO Comments: we recieved, AD-8, AD9, AD13, Duplicate, equipment Blank for metal and mercury. AD-11, AD-14, AD-15 for metal, mercury and Radium.

(Record Test Count on back of form)

Total # of Containers LISTED on COC: _____

WATER & WASTE SAMPLE RECEIPT FORM (CONT)

Form SOP-7102 Sample Receipt Form Rev. 10, 01/03/25

REMINDER: Document the pertinent sample integrity information and deviations in sample receipt (as noted above) in the Sample or Job "Comments" field in the LIMS. **Comments below**:

i.e. Mark "LF" if needs Lab filtered, Temperature or Preservative deviation, Preserved upon arrival , etc.

JOB # : 250454 **Initial/ Date:** JSD **Peer Review Initial/ Date:** [illegible] 02/18/25

Login Test Count from COC	LIMS Sample ID (or COC Sample Name)	Comments /Nonconformities	Peer Review Test Count from COC
	250454-001		21
	-002		21
	-003		21
	-004		21
	-005		21
	-006		21
	-007		~~20~~ * 19
	-008		~~20~~ * 19

* [illegible] 02/18/25

Municipal Solid Waste Laboratory Review Checklist

This data package consists of:

- [x] This signature page, and the laboratory review checklist consisting of Table 1, Reportable Data (which includes the reportable data identified on this page), Table 2, Supporting Data, and Table 3, Exception Reports.
- [x] R1 Field chain-of-custody documentation
- [x] R2 Sample identification cross-reference
- [x] R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - (a) Items specified in NELAC Chapter 5 for reporting results, e.g., Section 5.5.10 in 2003 NELAC Standard
  - (b) Dilution factors
  - (c) Preparation methods
  - (d) Cleanup methods
  - (e) If required for the project, tentatively identified compounds (TICs)
- [NA] R4 Surrogate recovery data including:
  - (a) Calculated recovery (%R)
  - (b) The laboratory's surrogate QC limits
- [x] R5 Test reports/summary forms for blank samples
- [x] R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - (a) LCS spiking amounts
  - (b) Calculated %R for each analyte
  - (c) The laboratory's LCS QC limits
- [x] R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - (a) Samples associated with the MS/MSD clearly identified
  - (b) MS/MSD spiking amounts
  - (c) Concentration of each MS/MSD analyte measured in the parent and spiked samples
  - (d) Calculated %Rs and relative percent differences (RPDs)
  - (e) The laboratory's MS/MSD QC limits
- [x] R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - (a) The amount of analyte measured in the duplicate
  - (b) The calculated RPD
  - (c) The laboratory's QC limits for analytical duplicates
- [x] R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix
- [x] R10 Other problems or anomalies
- [x] The Exception Report for every item for which the result is "No" or "NR" (Not Reviewed)

Release Statement: I am responsible for the release of this laboratory data package. This data package as been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, if applicable: [●] This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Tamisha Palmer	Tamisha T. Palmer	Chemical Laboratory Technician, Principal	03/06/2025
Name (printed)	Signature	Official Title	Date

Radium Laboratory Review Checklist

Table 1. Reportable Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Power

Reviewer Name: Tamisha Palmer

LRC Date: 03/06/2025

Laboratory Job Number: 240454

Prep Batch Number(s): PB25022102

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
R1	O, I	**Chain-of-custody (COC)**		
	I	Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	Yes	
	I	Were all departures from standard conditions described in an exception report?	Yes	
R2	O, I	**Sample and quality control (QC) identification**		
	I	Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	Yes	
	I	Are all laboratory ID numbers cross-referenced to the corresponding QC data?	Yes	
R3	O, I	**Test reports**		
	I	Were all samples prepared and analyzed within holding times?	Yes	
	I	Other than those results < MQL, were all other raw values bracketed by calibration standards?	NA	
	I	Were calculations checked by a peer or supervisor?	Yes	
	I	Were all analyte identifications checked by a peer or supervisor?	Yes	
	I	Were sample quantitation limits reported for all analytes not detected?	Yes	
	I	Were all results for soil and sediment samples reported on a dry weight basis?	NA	
	I	Was % moisture (or solids) reported for all soil and sediment samples?	NA	
	I	If required for the project, TICs reported?	NA	
R4	O	**Surrogate recovery data**		
	I	Were surrogates added prior to extraction?	NA	
	I	Were surrogate percent recoveries in all samples within the laboratory QC limits?	NA	
R5	O, I	**Test reports/summary forms for blank samples**		
	I	Were appropriate type(s) of blanks analyzed?	Yes	
	I	Were blanks analyzed at the appropriate frequency?	Yes	

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
	I	Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	Yes	
	I	Were blank concentrations < MQL?	Yes	
R6	O, I	**Laboratory control samples (LCS):**		
	I	Were all COCs included in the LCS?	Yes	
	I	Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	Yes	
	I	Were LCSs analyzed at the required frequency?	Yes	
	I	Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?		
	I	Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	Yes	
	I	Was the LCSD RPD within QC limits?	Yes	
R7	O, I	**Matrix spike (MS) and matrix spike duplicate (MSD) data**		
	I	Were the project/method specified analytes included in the MS and MSD?	Yes	
	I	Were MS/MSD analyzed at the appropriate frequency?	Yes	
	I	Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	NA	
	I	Were MS/MSD RPDs within laboratory QC limits?	NA	
R8	O, I	**Analytical duplicate data**		
	I	Were appropriate analytical duplicates analyzed for each matrix?	Yes	
	I	Were analytical duplicates analyzed at the appropriate frequency?	Yes	
	I	Were RPDs or relative standard deviations within the laboratory QC limits?	No	ER1
R9	O, I	**Method quantitation limits (MQLs):**		
	I	Are the MQLs for each method analyte included in the laboratory data package?	Yes	
	I	Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	Yes	
	I	Are unadjusted MQLs included in the laboratory data package?	Yes	
R10	O, I	**Other problems/anomalies**		
	I	Are all known problems/anomalies/special conditions noted in this LRC and ER?	Yes	
	I	Were all necessary corrective actions performed for the reported data?	Yes	
	I	Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	Yes	

Table 2. Supporting Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Power

Reviewer Name: Tamisha Palmer

LRC Date: 03/06/2025

Laboratory Job Number: 240454

Prep Batch Number(s): PB25022102

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S1	O, I	**Initial calibration (ICAL)**		
	I	Were response factors and/or relative response factors for each analyte within QC limits?	NA	
	I	Were percent RSDs or correlation coefficient criteria met?	Yes	
	I	Was the number of standards recommended in the method used for all analytes?	Yes	
	I	Were all points generated between the lowest and highest standard used to calculate the curve?	NA	
	I	Are ICAL data available for all instruments used?	Yes	
	I	Has the initial calibration curve been verified using an appropriate second source standard?	Yes	
S2	O, I	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):**		
	I	Was the CCV analyzed at the method-required frequency?	NA	
	I	Were percent differences for each analyte within the method-required QC limits?	NA	
	I	Was the ICAL curve verified for each analyte?	NA	
	I	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	NA	
S3	O	**Mass spectral tuning:**		
	I	Was the appropriate compound for the method used for tuning?	NA	
	I	Were ion abundance data within the method-required QC limits?	NA	
S4	O	**Internal standards (IS):**		
	I	Were IS area counts and retention times within the method-required QC limits?	NA	
S5	O, I	**Raw data (NELAC section 1 appendix A glossary, and section 5.)**		
	I	Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Yes	
	I	Were data associated with manual integrations flagged on the raw data?	NA	

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S6	O	**Dual column confirmation**		
	I	Did dual column confirmation results meet the method-required QC?	NA	
S7	O	**Tentatively identified compounds (TICs):**		
	I	If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?	NA	
S8	I	**Interference Check Sample (ICS) results:**		
	I	Were percent recoveries within method QC limits?	NA	
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**		
	I	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	NA	
S10	O, I	**Method detection limit (MDL) studies**		
	I	Was a MDL study performed for each reported analyte?	Yes	
	I	Is the MDL either adjusted or supported by the analysis of DCSs?	Yes	
S11	O, I	**Proficiency test reports:**		
	I	Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Yes	
S12	O, I	**Standards documentation**		
	I	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Yes	
S13	O, I	**Compound/analyte identification procedures**		
	I	Are the procedures for compound/analyte identification documented?	Yes	
S14	O, I	**Demonstration of analyst competency (DOC)**		
	I	Was DOC conducted consistent with NELAC Chapter 5C?	Yes	
	I	Is documentation of the analyst's competency up-to-date and on file?	Yes	
S15	O, I	**Verification/validation documentation for methods (NELAC Chap 5n 5)**		
	I	Are all the methods used to generate the data documented, verified, and validated, where applicable?	Yes	
S16	O, I	**Laboratory standard operating procedures (SOPs):**		
	I	Are laboratory SOPs current and on file for each method performed?	Yes	

Table 3. Exception Reports.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Power

Reviewer Name: Tamisha Palmer

LRC Date: 03/06/2025

Laboratory Job Number: 240454

Prep Batch Number(s): PB25022102

Exception Report No.	Description
ER1	The RPD was outside the 25% criteria

[1] Items identified by the letter "R" must be available as a hard copy or as a .pdf file. Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
[2] O - organic analyses; I - inorganic analyses (including general chemistry constituents, when applicable).
[3] NA - Not applicable; NR - Not reviewed.
[4] Exception Report identification number; an Exception Report should be completed for an item if the result is "No" or "NR."

Municipal Solid Waste Laboratory Review Checklist

This data package consists of:

- [x] This signature page, and the laboratory review checklist consisting of Table 1, Reportable Data (which includes the reportable data identified on this page), Table 2, Supporting Data, and Table 3, Exception Reports.
- [x] R1 Field chain-of-custody documentation
- [x] R2 Sample identification cross-reference
- [x] R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - (a) Items specified in NELAC Chapter 5 for reporting results, e.g., Section 5.5.10 in 2003 NELAC Standard
  - (b) Dilution factors
  - (c) Preparation methods
  - (d) Cleanup methods
  - (e) If required for the project, tentatively identified compounds (TICs)
- [NA] R4 Surrogate recovery data including:
  - (a) Calculated recovery (%R)
  - (b) The laboratory's surrogate QC limits
- [x] R5 Test reports/summary forms for blank samples
- [x] R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - (a) LCS spiking amounts
  - (b) Calculated %R for each analyte
  - (c) The laboratory's LCS QC limits
- [x] R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - (a) Samples associated with the MS/MSD clearly identified
  - (b) MS/MSD spiking amounts
  - (c) Concentration of each MS/MSD analyte measured in the parent and spiked samples
  - (d) Calculated %Rs and relative percent differences (RPDs)
  - (e) The laboratory's MS/MSD QC limits
- [x] R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - (a) The amount of analyte measured in the duplicate
  - (b) The calculated RPD
  - (c) The laboratory's QC limits for analytical duplicates
- [x] R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix
- [x] R10 Other problems or anomalies
- [x] The Exception Report for every item for which the result is "No" or "NR" (Not Reviewed)

Release Statement: I am responsible for the release of this laboratory data package. This data package as been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, if applicable: (●) This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Sunita Timsina	Timsina	Chemist Associate	03/06/2025
Name (printed)	Signature	Official Title	Date

Table 1. Reportable Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Power Station

Reviewer Name: Sunita Timsina

LRC Date: 03/06/2025

Laboratory Job Number: 250454

Prep Batch Number(s): PB25022101

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
R1	O, I	**Chain-of-custody (COC)**		
	I	Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	Yes	
	I	Were all departures from standard conditions described in an exception report?	Yes	
R2	O, I	**Sample and quality control (QC) identification**		
	I	Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	Yes	
	I	Are all laboratory ID numbers cross-referenced to the corresponding QC data?	Yes	
R3	O, I	**Test reports**		
	I	Were all samples prepared and analyzed within holding times?	Yes	
	I	Other than those results < MQL, were all other raw values bracketed by calibration standards?	NA	
	I	Were calculations checked by a peer or supervisor?	Yes	
	I	Were all analyte identifications checked by a peer or supervisor?	Yes	
	I	Were sample quantitation limits reported for all analytes not detected?	Yes	
	I	Were all results for soil and sediment samples reported on a dry weight basis?	NA	
	I	Was % moisture (or solids) reported for all soil and sediment samples?	NA	
	I	If required for the project, TICs reported?	NA	
R4	O	**Surrogate recovery data**		
	I	Were surrogates added prior to extraction?	NA	
	I	Were surrogate percent recoveries in all samples within the laboratory QC limits?	NA	
R5	O, I	**Test reports/summary forms for blank samples**		
	I	Were appropriate type(s) of blanks analyzed?	Yes	
	I	Were blanks analyzed at the appropriate frequency?	Yes	

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
	I	Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	Yes	
	I	Were blank concentrations < MQL?	Yes	
R6	O, I	**Laboratory control samples (LCS):**		
	I	Were all COCs included in the LCS?	Yes	
	I	Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	Yes	
	I	Were LCSs analyzed at the required frequency?	Yes	
	I	Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	Yes	
	I	Was the LCSD RPD within QC limits?	Yes	
R7	O, I	**Matrix spike (MS) and matrix spike duplicate (MSD) data**		
	I	Were the project/method specified analytes included in the MS and MSD?	Yes	
	I	Were MS/MSD analyzed at the appropriate frequency?	Yes	
	I	Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Were MS/MSD RPDs within laboratory QC limits?	NO	ER1
R8	O, I	**Analytical duplicate data**		
	I	Were appropriate analytical duplicates analyzed for each matrix?	Yes	
	I	Were analytical duplicates analyzed at the appropriate frequency?	Yes	
	I	Were RPDs or relative standard deviations within the laboratory QC limits?	NA	
R9	O, I	**Method quantitation limits (MQLs):**		
	I	Are the MQLs for each method analyte included in the laboratory data package?	Yes	
	I	Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	Yes	
	I	Are unadjusted MQLs included in the laboratory data package?	Yes	
R10	O, I	**Other problems/anomalies**		
	I	Are all known problems/anomalies/special conditions noted in this LRC and ER?	Yes	
	I	Were all necessary corrective actions performed for the reported data?	Yes	
	I	Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	Yes	

Table 2. Supporting Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Power Station

Reviewer Name: Sunita Timsina

LRC Date: 03/06/2025

Laboratory Job Number: 250454

Prep Batch Number(s): PB25022101

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S1	O, I	**Initial calibration (ICAL)**		
	I	Were response factors and/or relative response factors for each analyte within QC limits?	NA	
	I	Were percent RSDs or correlation coefficient criteria met?	Yes	
	I	Was the number of standards recommended in the method used for all analytes?	Yes	
	I	Were all points generated between the lowest and highest standard used to calculate the curve?	NA	
	I	Are ICAL data available for all instruments used?	Yes	
	I	Has the initial calibration curve been verified using an appropriate second source standard?	Yes	
S2	O, I	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):**		
	I	Was the CCV analyzed at the method-required frequency?	NA	
	I	Were percent differences for each analyte within the method-required QC limits?	NA	
	I	Was the ICAL curve verified for each analyte?	NA	
	I	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	NA	
S3	O	**Mass spectral tuning:**		
	I	Was the appropriate compound for the method used for tuning?	NA	
	I	Were ion abundance data within the method-required QC limits?	NA	
S4	O	**Internal standards (IS):**		
	I	Were IS area counts and retention times within the method-required QC limits?	NA	
S5	O, I	**Raw data (NELAC section 1 appendix A glossary, and section 5.)**		
	I	Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Yes	
	I	Were data associated with manual integrations flagged on the raw data?	NA	

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S6	O	**Dual column confirmation**		
	I	Did dual column confirmation results meet the method-required QC?	NA	
S7	O	**Tentatively identified compounds (TICs):**		
	I	If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?	NA	
S8	I	**Interference Check Sample (ICS) results:**		
	I	Were percent recoveries within method QC limits?	NA	
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**		
	I	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	NA	
S10	O, I	**Method detection limit (MDL) studies**		
	I	Was a MDL study performed for each reported analyte?	Yes	
	I	Is the MDL either adjusted or supported by the analysis of DCSs?	Yes	
S11	O, I	**Proficiency test reports:**		
	I	Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Yes	
S12	O, I	**Standards documentation**		
	I	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Yes	
S13	O, I	**Compound/analyte identification procedures**		
	I	Are the procedures for compound/analyte identification documented?	Yes	
S14	O, I	**Demonstration of analyst competency (DOC)**		
	I	Was DOC conducted consistent with NELAC Chapter 5C?	Yes	
	I	Is documentation of the analyst's competency up-to-date and on file?	Yes	
S15	O, I	**Verification/validation documentation for methods (NELAC Chap 5n 5)**		
	I	Are all the methods used to generate the data documented, verified, and validated, where applicable?	Yes	
S16	O, I	**Laboratory standard operating procedures (SOPs):**		
	I	Are laboratory SOPs current and on file for each method performed?	Yes	

Table 3. Exception Reports.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Power Station

Reviewer Name: Sunita Timsina

LRC Date: 03/06/2025

Laboratory Job Number: 250454

Prep Batch Number(s): PB25022101

Exception Report No.	Description
ER1	The precision on the matrix spike duplicate (MSD) was above acceptance limits.

[1] Items identified by the letter "R" must be available as a hard copy or as a .pdf file. Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
[2] O - organic analyses; I - inorganic analyses (including general chemistry constituents, when applicable).
[3] NA - Not applicable; NR - Not reviewed.
[4] Exception Report identification number; an Exception Report should be completed for an item if the result is "No" or "NR."

Municipal Solid Waste Laboratory Review Checklist

This data package consists of:

- [x] This signature page, and the laboratory review checklist consisting of Table 1, Reportable Data (which includes the reportable data identified on this page), Table 2, Supporting Data, and Table 3, Exception Reports.
- [x] R1 Field chain-of-custody documentation
- [x] R2 Sample identification cross-reference
- [x] R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - (a) Items specified in NELAC Chapter 5 for reporting results, e.g., Section 5.5.10 in 2003 NELAC Standard
  - (b) Dilution factors
  - (c) Preparation methods
  - (d) Cleanup methods
  - (e) If required for the project, tentatively identified compounds (TICs)
- [NA] R4 Surrogate recovery data including:
  - (a) Calculated recovery (%R)
  - (b) The laboratory's surrogate QC limits
- [x] R5 Test reports/summary forms for blank samples
- [x] R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - (a) LCS spiking amounts
  - (b) Calculated %R for each analyte
  - (c) The laboratory's LCS QC limits
- [x] R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - (a) Samples associated with the MS/MSD clearly identified
  - (b) MS/MSD spiking amounts
  - (c) Concentration of each MS/MSD analyte measured in the parent and spiked samples
  - (d) Calculated %Rs and relative percent differences (RPDs)
  - (e) The laboratory's MS/MSD QC limits
- [x] R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - (a) The amount of analyte measured in the duplicate
  - (b) The calculated RPD
  - (c) The laboratory's QC limits for analytical duplicates
- [x] R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix
- [x] R10 Other problems or anomalies
- [x] The Exception Report for every item for which the result is "No" or "NR" (Not Reviewed)

Release Statement: I am responsible for the release of this laboratory data package. This data package as been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, if applicable: (●) This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Kelsey Huff		Chemist	02/26/2025
Name (printed)	Signature	Official Title	Date

Mercury Laboratory Review Checklist

Table 1. Reportable Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh

Reviewer Name: Kelsey Huff

LRC Date: 02/26/2025

Laboratory Job Number: 250454

Prep Batch Number(s): PB25021801

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
R1	O, I	**Chain-of-custody (COC)**		
	I	Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	Yes	
	I	Were all departures from standard conditions described in an exception report?	Yes	
R2	O, I	**Sample and quality control (QC) identification**		
	I	Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	Yes	
	I	Are all laboratory ID numbers cross-referenced to the corresponding QC data?	Yes	
R3	O, I	**Test reports**		
	I	Were all samples prepared and analyzed within holding times?	Yes	
	I	Other than those results < MQL, were all other raw values bracketed by calibration standards?	Yes	
	I	Were calculations checked by a peer or supervisor?	Yes	
	I	Were all analyte identifications checked by a peer or supervisor?	Yes	
	I	Were sample quantitation limits reported for all analytes not detected?	Yes	
	I	Were all results for soil and sediment samples reported on a dry weight basis?	NA	
	I	Was % moisture (or solids) reported for all soil and sediment samples?	NA	
	I	If required for the project, TICs reported?	NA	
R4	O	**Surrogate recovery data**		
	I	Were surrogates added prior to extraction?	NA	
	I	Were surrogate percent recoveries in all samples within the laboratory QC limits?	NA	
R5	O, I	**Test reports/summary forms for blank samples**		
	I	Were appropriate type(s) of blanks analyzed?	Yes	
	I	Were blanks analyzed at the appropriate frequency?	Yes	

Mercury Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
	I	Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	Yes	
	I	Were blank concentrations < MQL?	Yes	
R6	O, I	**Laboratory control samples (LCS):**		
	I	Were all COCs included in the LCS?	Yes	
	I	Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	Yes	
	I	Were LCSs analyzed at the required frequency?	Yes	
	I	Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	Yes	
	I	Was the LCSD RPD within QC limits?	Yes	
R7	O, I	**Matrix spike (MS) and matrix spike duplicate (MSD) data**		
	I	Were the project/method specified analytes included in the MS and MSD?	Yes	
	I	Were MS/MSD analyzed at the appropriate frequency?	Yes	
	I	Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Were MS/MSD RPDs within laboratory QC limits?	Yes	
R8	O, I	**Analytical duplicate data**		
	I	Were appropriate analytical duplicates analyzed for each matrix?	NA	
	I	Were analytical duplicates analyzed at the appropriate frequency?	NA	
	I	Were RPDs or relative standard deviations within the laboratory QC limits?	NA	
R9	O, I	**Method quantitation limits (MQLs):**		
	I	Are the MQLs for each method analyte included in the laboratory data package?	Yes	
	I	Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	Yes	
	I	Are unadjusted MQLs included in the laboratory data package?	Yes	
R10	O, I	**Other problems/anomalies**		
	I	Are all known problems/anomalies/special conditions noted in this LRC and ER?	Yes	
	I	Were all necessary corrective actions performed for the reported data?	Yes	
	I	Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	Yes	

Mercury Laboratory Review Checklist

Table 2. Supporting Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh

Reviewer Name: Kelsey Huff

LRC Date: 02/26/2025

Laboratory Job Number: 250454

Prep Batch Number(s): PB25021801

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S1	O, I	**Initial calibration (ICAL)**		
	I	Were response factors and/or relative response factors for each analyte within QC limits?	NA	
	I	Were percent RSDs or correlation coefficient criteria met?	Yes	
	I	Was the number of standards recommended in the method used for all analytes?	Yes	
	I	Were all points generated between the lowest and highest standard used to calculate the curve?	Yes	
	I	Are ICAL data available for all instruments used?	Yes	
	I	Has the initial calibration curve been verified using an appropriate second source standard?	Yes	
S2	O, I	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):**		
	I	Was the CCV analyzed at the method-required frequency?	Yes	
	I	Were percent differences for each analyte within the method-required QC limits?	Yes	
	I	Was the ICAL curve verified for each analyte?	Yes	
	I	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	No	ER1
S3	O	**Mass spectral tuning:**		
	I	Was the appropriate compound for the method used for tuning?	NA	
	I	Were ion abundance data within the method-required QC limits?	NA	
S4	O	**Internal standards (IS):**		
	I	Were IS area counts and retention times within the method-required QC limits?	NA	
S5	O, I	**Raw data (NELAC section 1 appendix A glossary, and section 5.)**		
	I	Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Yes	
	I	Were data associated with manual integrations flagged on the raw data?	NA	

Mercury Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S6	O	**Dual column confirmation**		
	I	Did dual column confirmation results meet the method-required QC?	NA	
S7	O	**Tentatively identified compounds (TICs):**		
	I	If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?	NA	
S8	I	**Interference Check Sample (ICS) results:**		
	I	Were percent recoveries within method QC limits?	NA	
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**		
	I	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	NA	
S10	O, I	**Method detection limit (MDL) studies**		
	I	Was a MDL study performed for each reported analyte?	Yes	
	I	Is the MDL either adjusted or supported by the analysis of DCSs?	Yes	
S11	O, I	**Proficiency test reports:**		
	I	Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Yes	
S12	O, I	**Standards documentation**		
	I	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Yes	
S13	O, I	**Compound/analyte identification procedures**		
	I	Are the procedures for compound/analyte identification documented?	Yes	
S14	O, I	**Demonstration of analyst competency (DOC)**		
	I	Was DOC conducted consistent with NELAC Chapter 5C?	Yes	
	I	Is documentation of the analyst's competency up-to-date and on file?	Yes	
S15	O, I	**Verification/validation documentation for methods (NELAC Chap 5n 5)**		
	I	Are all the methods used to generate the data documented, verified, and validated, where applicable?	Yes	
S16	O, I	**Laboratory standard operating procedures (SOPs):**		
	I	Are laboratory SOPs current and on file for each method performed?	Yes	

Table 3. Exception Reports.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh

Reviewer Name: Kelsey Huff

LRC Date: 02/26/2025

Laboratory Job Number: 250454

Prep Batch Number(s): PB25021801

Exception Report No.	Description
ER1	CCB acceptance criteria is CCB<MQL.

[1] Items identified by the letter "R" must be available as a hard copy or as a .pdf file. Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
[2] O - organic analyses; I - inorganic analyses (including general chemistry constituents, when applicable).
[3] NA - Not applicable; NR - Not reviewed.
[4] Exception Report identification number; an Exception Report should be completed for an item if the result is "No" or "NR."

Municipal Solid Waste Laboratory Review Checklist

This data package consists of:

- [x] This signature page, and the laboratory review checklist consisting of Table 1, Reportable Data (which includes the reportable data identified on this page), Table 2, Supporting Data, and Table 3, Exception Reports.
- [x] R1 Field chain-of-custody documentation
- [x] R2 Sample identification cross-reference
- [x] R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - (a) Items specified in NELAC Chapter 5 for reporting results, e.g., Section 5.5.10 in 2003 NELAC Standard
  - (b) Dilution factors
  - (c) Preparation methods
  - (d) Cleanup methods
  - (e) If required for the project, tentatively identified compounds (TICs)
- [NA] R4 Surrogate recovery data including:
  - (a) Calculated recovery (%R)
  - (b) The laboratory's surrogate QC limits
- [x] R5 Test reports/summary forms for blank samples
- [x] R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - (a) LCS spiking amounts
  - (b) Calculated %R for each analyte
  - (c) The laboratory's LCS QC limits
- [x] R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - (a) Samples associated with the MS/MSD clearly identified
  - (b) MS/MSD spiking amounts
  - (c) Concentration of each MS/MSD analyte measured in the parent and spiked samples
  - (d) Calculated %Rs and relative percent differences (RPDs)
  - (e) The laboratory's MS/MSD QC limits
- [x] R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - (a) The amount of analyte measured in the duplicate
  - (b) The calculated RPD
  - (c) The laboratory's QC limits for analytical duplicates
- [x] R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix
- [x] R10 Other problems or anomalies
- [x] The Exception Report for every item for which the result is "No" or "NR" (Not Reviewed)

Release Statement: I am responsible for the release of this laboratory data package. This data package as been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, if applicable: (●) This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Elizabeth Hoitink	Elizabeth L Hoitink Digitally signed by Elizabeth L Hoitink Date: 2025.02.25 11:52:07 -05'00'	Chemist	2-25-2025
Name (printed)	Signature	Official Title	Date

Table 1. Reportable Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh CCR

Reviewer Name: Elizabeth Hoitink

LRC Date: 2-25-2025

Laboratory Job Number: 250454

Prep Batch Number(s): PB25021902, QC2502155

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
R1	O, I	**Chain-of-custody (COC)**		
	I	Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	Yes	
	I	Were all departures from standard conditions described in an exception report?	Yes	
R2	O, I	**Sample and quality control (QC) identification**		
	I	Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	Yes	
	I	Are all laboratory ID numbers cross-referenced to the corresponding QC data?	Yes	
R3	O, I	**Test reports**		
	I	Were all samples prepared and analyzed within holding times?	Yes	
	I	Other than those results < MQL, were all other raw values bracketed by calibration standards?	No	ER1
	I	Were calculations checked by a peer or supervisor?	Yes	
	I	Were all analyte identifications checked by a peer or supervisor?	Yes	
	I	Were sample quantitation limits reported for all analytes not detected?	Yes	
	I	Were all results for soil and sediment samples reported on a dry weight basis?	NA	
	I	Was % moisture (or solids) reported for all soil and sediment samples?	NA	
	I	If required for the project, TICs reported?	NA	
R4	O	**Surrogate recovery data**		
	I	Were surrogates added prior to extraction?	NA	
	I	Were surrogate percent recoveries in all samples within the laboratory QC limits?	NA	
R5	O, I	**Test reports/summary forms for blank samples**		
	I	Were appropriate type(s) of blanks analyzed?	Yes	
	I	Were blanks analyzed at the appropriate frequency?	Yes	

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
	I	Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	Yes	
	I	Were blank concentrations < MQL?	Yes	
R6	O, I	**Laboratory control samples (LCS):**		
	I	Were all COCs included in the LCS?	Yes	
	I	Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	Yes	
	I	Were LCSs analyzed at the required frequency?	Yes	
	I	Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	Yes	
	I	Was the LCSD RPD within QC limits?	Yes	
R7	O, I	**Matrix spike (MS) and matrix spike duplicate (MSD) data**		
	I	Were the project/method specified analytes included in the MS and MSD?	Yes	
	I	Were MS/MSD analyzed at the appropriate frequency?	Yes	
	I	Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Were MS/MSD RPDs within laboratory QC limits?	Yes	
R8	O, I	**Analytical duplicate data**		
	I	Were appropriate analytical duplicates analyzed for each matrix?	Yes	
	I	Were analytical duplicates analyzed at the appropriate frequency?	Yes	
	I	Were RPDs or relative standard deviations within the laboratory QC limits?	Yes	
R9	O, I	**Method quantitation limits (MQLs):**		
	I	Are the MQLs for each method analyte included in the laboratory data package?	Yes	
	I	Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	Yes	
	I	Are unadjusted MQLs included in the laboratory data package?	Yes	
R10	O, I	**Other problems/anomalies**		
	I	Are all known problems/anomalies/special conditions noted in this LRC and ER?	Yes	
	I	Were all necessary corrective actions performed for the reported data?	Yes	
	I	Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	Yes	

Table 2. Supporting Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh CCR

Reviewer Name: Elizabeth Hoitink

LRC Date: 2-25-2025

Laboratory Job Number: 250454

Prep Batch Number(s): PB25021902, QC2502155

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S1	O, I	**Initial calibration (ICAL)**		
	I	Were response factors and/or relative response factors for each analyte within QC limits?	NA	
	I	Were percent RSDs or correlation coefficient criteria met?	Yes	
	I	Was the number of standards recommended in the method used for all analytes?	Yes	
	I	Were all points generated between the lowest and highest standard used to calculate the curve?	Yes	
	I	Are ICAL data available for all instruments used?	Yes	
	I	Has the initial calibration curve been verified using an appropriate second source standard?	Yes	
S2	O, I	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):**		
	I	Was the CCV analyzed at the method-required frequency?	Yes	
	I	Were percent differences for each analyte within the method-required QC limits?	Yes	
	I	Was the ICAL curve verified for each analyte?	Yes	
	I	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	No	ER2
S3	O	**Mass spectral tuning:**		
	I	Was the appropriate compound for the method used for tuning?	Yes	
	I	Were ion abundance data within the method-required QC limits?	Yes	
S4	O	**Internal standards (IS):**		
	I	Were IS area counts and retention times within the method-required QC limits?	Yes	
S5	O, I	**Raw data (NELAC section 1 appendix A glossary, and section 5.)**		
	I	Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Yes	
	I	Were data associated with manual integrations flagged on the raw data?	NA	

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S6	O	**Dual column confirmation**		
	I	Did dual column confirmation results meet the method-required QC?	NA	
S7	O	**Tentatively identified compounds (TICs):**		
	I	If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?	NA	
S8	I	**Interference Check Sample (ICS) results:**		
	I	Were percent recoveries within method QC limits?	NA	
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**		
	I	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	NA	
S10	O, I	**Method detection limit (MDL) studies**		
	I	Was a MDL study performed for each reported analyte?	Yes	
	I	Is the MDL either adjusted or supported by the analysis of DCSs?	Yes	
S11	O, I	**Proficiency test reports:**		
	I	Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Yes	
S12	O, I	**Standards documentation**		
	I	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Yes	
S13	O, I	**Compound/analyte identification procedures**		
	I	Are the procedures for compound/analyte identification documented?	Yes	
S14	O, I	**Demonstration of analyst competency (DOC)**		
	I	Was DOC conducted consistent with NELAC Chapter 5C?	Yes	
	I	Is documentation of the analyst's competency up-to-date and on file?	Yes	
S15	O, I	**Verification/validation documentation for methods (NELAC Chap 5n 5)**		
	I	Are all the methods used to generate the data documented, verified, and validated, where applicable?	Yes	
S16	O, I	**Laboratory standard operating procedures (SOPs):**		
	I	Are laboratory SOPs current and on file for each method performed?	Yes	

Table 3. Exception Reports.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh CCR

Reviewer Name: Elizabeth Hoitink

LRC Date: 2-25-2025

Laboratory Job Number: 250454

Prep Batch Number(s): PB25021902, QC2502155

Exception Report No.	Description
ER1	Linear Dynamic Range (LDR) study used to determine upper limit of analyte calibration.
ER2	CCB acceptance criteria is CCB<2.2*MDL.

[1] Items identified by the letter "R" must be available as a hard copy or as a .pdf file. Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
[2] O - organic analyses; I - inorganic analyses (including general chemistry constituents, when applicable).
[3] NA - Not applicable; NR - Not reviewed.
[4] Exception Report identification number; an Exception Report should be completed for an item if the result is "No" or "NR."

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 250418 **Customer: Welsh Power Station** **Date Reported: 03/17/2025**

Customer Sample ID: AD-8 (PBAP) Customer Description: TG-32
Lab Number: 250418-001 Preparation:
Date Collected: 02/10/2025 11:29 EST Date Received: 02/12/2025 10:00 EST

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.12	mg/L	2	0.10	0.02		CRJ	02/20/2025 23:38	EPA 300.1 -1997, Rev. 1.0
Chloride	19.7	mg/L	2	0.06	0.02		CRJ	02/20/2025 23:38	EPA 300.1 -1997, Rev. 1.0
Fluoride	0.94	mg/L	2	0.06	0.02		CRJ	02/20/2025 23:38	EPA 300.1 -1997, Rev. 1.0
Sulfate	138	mg/L	10	3.0	0.6		CRJ	02/20/2025 17:45	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Alkalinity, as CaCO3	8	mg/L	1	20	5	J1	MGK		SM 2320B-2011
TDS, Filterable Residue	280	mg/L	1	50	20		SDW	02/13/2025 10:32	SM 2540C-2015

Customer Sample ID: AD-9 (PBAP) Customer Description: TG-32
Lab Number: 250418-002 Preparation:
Date Collected: 02/10/2025 10:25 EST Date Received: 02/12/2025 10:00 EST

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.44	mg/L	2	0.10	0.02		CRJ	02/20/2025 23:58	EPA 300.1 -1997, Rev. 1.0
Chloride	33.0	mg/L	2	0.06	0.02		CRJ	02/20/2025 23:58	EPA 300.1 -1997, Rev. 1.0
Fluoride	0.19	mg/L	2	0.06	0.02		CRJ	02/20/2025 23:58	EPA 300.1 -1997, Rev. 1.0
Sulfate	374	mg/L	25	8	2		CRJ	02/20/2025 18:05	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Alkalinity, as CaCO3	59	mg/L	1	20	5		MGK		SM 2320B-2011
TDS, Filterable Residue	730	mg/L	1	50	20		SDW	02/13/2025 10:37	SM 2540C-2015

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 250418 **Customer: Welsh Power Station** **Date Reported: 03/17/2025**

Customer Sample ID: AD-11 (LF) Customer Description: TG-32
Lab Number: 250418-003 Preparation:
Date Collected: 02/11/2025 11:28 EST Date Received: 02/12/2025 10:00 EST

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.16	mg/L	2	0.10	0.02		CRJ	02/21/2025 00:40	EPA 300.1 -1997, Rev. 1.0
Chloride	20.8	mg/L	2	0.06	0.02		CRJ	02/21/2025 00:40	EPA 300.1 -1997, Rev. 1.0
Fluoride	0.04	mg/L	2	0.06	0.02	J1	CRJ	02/21/2025 00:40	EPA 300.1 -1997, Rev. 1.0
Sulfate	60.9	mg/L	2	0.6	0.1		CRJ	02/21/2025 00:40	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Alkalinity, as CaCO3	<5	mg/L	1	20	5	U1	MGK		SM 2320B-2011
TDS, Filterable Residue	190	mg/L	1	50	20		SDW	02/13/2025 10:42	SM 2540C-2015

Customer Sample ID: AD-13 (LF) Customer Description: TG-32
Lab Number: 250418-004 Preparation:
Date Collected: 02/10/2025 12:22 EST Date Received: 02/12/2025 10:00 EST

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.17	mg/L	2	0.10	0.02		CRJ	02/21/2025 01:01	EPA 300.1 -1997, Rev. 1.0
Chloride	8.03	mg/L	2	0.06	0.02		CRJ	02/21/2025 01:01	EPA 300.1 -1997, Rev. 1.0
Fluoride	0.12	mg/L	2	0.06	0.02		CRJ	02/21/2025 01:01	EPA 300.1 -1997, Rev. 1.0
Sulfate	162	mg/L	10	3.0	0.6		CRJ	02/20/2025 19:08	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Alkalinity, as CaCO3	<5	mg/L	1	20	5	U1	MGK		SM 2320B-2011
TDS, Filterable Residue	340	mg/L	1	50	20		SDW	02/13/2025 10:47	SM 2540C-2015

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 250418 **Customer: Welsh Power Station** **Date Reported: 03/17/2025**

Customer Sample ID: AD-14 (LF) Customer Description: TG-32
Lab Number: 250418-005 Preparation:
Date Collected: 02/10/2025 12:05 EST Date Received: 02/12/2025 10:00 EST

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.22	mg/L	2	0.10	0.02		CRJ	02/21/2025 01:42	EPA 300.1 -1997, Rev. 1.0
Chloride	4.89	mg/L	2	0.06	0.02		CRJ	02/21/2025 01:42	EPA 300.1 -1997, Rev. 1.0
Fluoride	0.25	mg/L	2	0.06	0.02		CRJ	02/21/2025 01:42	EPA 300.1 -1997, Rev. 1.0
Sulfate	186	mg/L	10	3.0	0.6		CRJ	02/20/2025 20:52	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Alkalinity, as CaCO3	22	mg/L	1	20	5		MGK		SM 2320B-2011
TDS, Filterable Residue	380	mg/L	1	50	20		SDW	02/13/2025 10:52	SM 2540C-2015

Customer Sample ID: AD-15 (PBAP) Customer Description: TG-32
Lab Number: 250418-006 Preparation:
Date Collected: 02/10/2025 10:36 EST Date Received: 02/12/2025 10:00 EST

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.91	mg/L	2	0.10	0.02		CRJ	02/20/2025 20:31	EPA 300.1 -1997, Rev. 1.0
Chloride	24.8	mg/L	2	0.06	0.02		CRJ	02/20/2025 20:31	EPA 300.1 -1997, Rev. 1.0
Fluoride	0.06	mg/L	2	0.06	0.02		CRJ	02/20/2025 20:31	EPA 300.1 -1997, Rev. 1.0
Sulfate	1.2	mg/L	2	0.6	0.1		CRJ	02/20/2025 20:31	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Alkalinity, as CaCO3	23	mg/L	1	20	5		MGK		SM 2320B-2011
TDS, Filterable Residue	70	mg/L	1	50	20		SDW	02/13/2025 10:57	SM 2540C-2015

AMERICAN ELECTRIC POWER

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Water Analysis Report

Job ID: 250418 **Customer: Welsh Power Station** **Date Reported: 03/17/2025**

Customer Sample ID: DUPLICATE
Customer Description: TG-32
Lab Number: 250418-007
Preparation:
Date Collected: 02/10/2025 13:00 EST
Date Received: 02/12/2025 10:00 EST

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	0.12	mg/L	2	0.10	0.02		CRJ	02/20/2025 19:49	EPA 300.1 -1997, Rev. 1.0
Chloride	19.7	mg/L	2	0.06	0.02		CRJ	02/20/2025 19:49	EPA 300.1 -1997, Rev. 1.0
Fluoride	0.94	mg/L	2	0.06	0.02		CRJ	02/20/2025 19:49	EPA 300.1 -1997, Rev. 1.0
Sulfate	137	mg/L	10	3.0	0.6		CRJ	02/20/2025 19:29	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Alkalinity, as CaCO3	9	mg/L	1	20	5	J1	MGK		SM 2320B-2011
TDS, Filterable Residue	280	mg/L	1	50	20	S7	SDW	02/13/2025 11:44	SM 2540C-2015

Customer Sample ID: EQUIPMENT BLANK
Customer Description: TG-32
Lab Number: 250418-008
Preparation:
Date Collected: 02/10/2025 12:27 EST
Date Received: 02/12/2025 10:00 EST

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Bromide	<0.02	mg/L	2	0.10	0.02	U1	CRJ	02/20/2025 23:17	EPA 300.1 -1997, Rev. 1.0
Chloride	0.69	mg/L	2	0.06	0.02		CRJ	02/20/2025 23:17	EPA 300.1 -1997, Rev. 1.0
Fluoride	<0.02	mg/L	2	0.06	0.02	U1	CRJ	02/20/2025 23:17	EPA 300.1 -1997, Rev. 1.0
Sulfate	<0.1	mg/L	2	0.6	0.1	U1	CRJ	02/20/2025 23:17	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Alkalinity, as CaCO3	<5	mg/L	1	20	5	U1	MGK		SM 2320B-2011
TDS, Filterable Residue	<20	mg/L	1	50	20	U1	SDW	02/13/2025 11:49	SM 2540C-2015

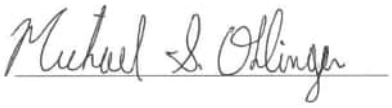
Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 250418 **Customer: Welsh Power Station** **Date Reported: 03/17/2025**

Report Verification

This report and the above data have been confirmed by the following analyst.



Michael Ohlinger, Chemist
Email: msohlinger@aep.com
Phone: 614-836-4184
Audinet: 8-210-4184

THIS TEST REPORT RELATES ONLY TO THE ITEMS TESTED AND SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT WRITTEN APPROVAL OF THE LABORATORY. ALL TEST RESULTS MEET ALL OF THE REQUIREMENTS OF THE ACCREDITING AUTHORITY, UNLESS OTHERWISE NOTED. ALL TIMES LISTED ARE IN THE EASTERN TIME ZONE.

Data Qualifer Legend

J1 - Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.
U1 - Not detected at or below method detection limit (MDL).
S7 - Sample did not achieve constant weight.

Chain of Custody Record

Program: Coal Combustion Residuals (CCR)

Dolan Chemical Laboratory (DCL)
4001 Bixby Road
Groveport, Ohio 43125
Contacts: Jonathan Barnhill (318-673-3803)
Michael Ohlinger (614-836-4184)

Project Name: Welsh Annual Screening
Contact Name: Pryce Warren
Contact Phone: 325-310-6668
Sampler(s): Matt Hamilton Kenny McDonald

Analysis Turnaround Time (in Calendar Days)

Site Contact:

Date:

For Lab Use Only:
COC/Order #: 250418

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Sampler(s) Initials	250 mL bottle, pH<2, HNO3 — B, Ca, Li, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Mo, Se, TL and Na, K, Mg, Sr	Field-filter 500 mL bottle, then pH<2, HNO_3 — dissolved Fe and Mn	1 L bottle, Cool, 0-6°C — TDS, F, Cl, SO_4, Br, and Alkalinity	Three (six every 10th*) 1 L bottles, pH<2, HNO_3 — Ra-226, Ra-228	250 mL Glass bottle, HCL**, pH<2 — Hg			Sample Specific Notes:
AD-8 (PBAP)	2/10/2025	1029	G	GW	1				X					
AD-9 (PBAP)	2/10/2025	925	G	GW	1				X					
AD-11 (LF)	2/10/2025	1028	G	GW	1				X					
AD-13 (LF)	2/10/2025	1122	G	GW	1				X					
AD-14 (LF)	2/10/2025	1105	G	GW	1				X					
AD-15 (PBAP)	2/10/2025	936	G	GW	1				X					
DUPLICATE	2/10/2025	1200	G	GW	1				X					
EQUIPMENT BLANK	2/10/2025	1127	G	GW	1				X					
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____; F= filter in field							4	F4	1	4	2			

* *Six 1L Bottles must be collected for Radium for every 10th sample.*

Special Instructions/QC Requirements & Comments:

Relinquished by: Matt Hamilton	Company: Eagle	Date/Time: 2-11-25 15:00	Received by:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: Michael Ohlinger	Date/Time: 2/12/25 10:00

WATER & WASTE SAMPLE RECEIPT FORM

Form SOP-7102 Sample Receipt Form Rev 10, 01/03/25

Package Type	Delivery Type
(Cooler) Box Bag Envelope	UPS (FedEX) USPS
	Other _____

Plant/Customer Welsh **Total # of Containers RECEIVED in Job:** 8

Opened By MSO

Date/Time 2/12/25 10:00

Were all required temperatures, per BN-water-900, T≤6°C *w/o sample freezing*? (Y) N or N/A

Initial/Date: MSO 2/12/25 (on ice) / no ice

If No, specify each deviation(s) on back of form. (IR Gun Ser# 240093386, *Expir.* 02/14/2025)

Was container in good condition? (Y) / N Comments

Was Chain of Custody received? (Y) / N Comments _____

Requested turnaround: Routine If **RUSH**, who was notified? _____

pH (15 min) Cr^{+6} (pres) (24 hr) NO_2 or NO_3 (48 hr) *ortho*-PO_4 (48 hr) Hg-diss (pres) (48 hr)

Were pH requirements met for required samples, per BN-water-900? (Y) / N or N/A

Initial/Date: MSO 2/12/25

***pH paper:* mfr Lab Rat, PN 4801, LOT# X000RWDG21, EXPIR DATE 11/30/2025

**** Note changes to pH paper in comments below***

Was Add'l Preservative needed? Y / (N) If Yes: By whom & when: _____ (See Prep Book)

(Dissolved) Is sample filtration requested? Y / (N) Comments _____ (See Prep Book)

Was COC filled out properly? (Y) / N Comments _____

Were samples labeled properly? (Y) N Comments _____

Were correct containers used? (Y) / N Comments _____

Was the customer contacted? If Yes: Person Contacted: _____

Lab ID# 250418 Initial & Date & Time : _____

Logged by MSO Comments: _____

(Record Test Count on back of form)

Total # of Containers LISTED on COC: 8

WATER & WASTE SAMPLE RECEIPT FORM (CONT)

Form SOP-7102 Sample Receipt Form Rev.10, 01/03/25

REMINDER: Document the pertinent sample integrity information and deviations in sample receipt (as noted above) in the Sample or Job "Comments" field in the LIMS. **Comments below**.
i.e. Mark "LF" if needs Lab filtered, Temperature or Preservative deviation, Preserved upon arrival , etc.

JOB # : 250418 **Initial/ Date:** MBO 2/12/25 **Peer Review Initial/ Date:** [illegible] 02/12/25

Login Test Count from COC	LIMS Sample ID (or COC Sample Name)	Comments /Nonconformities	Peer Review Test Count from COC
6	250418-001		6
6	250418-002		
6	250418-003		
6	250418-004		
6	250418-005		
6	250418-006		
6	250418-007		
6	250418-008		

Municipal Solid Waste Laboratory Review Checklist

This data package consists of:

- [x] This signature page, and the laboratory review checklist consisting of Table 1, Reportable Data (which includes the reportable data identified on this page), Table 2, Supporting Data, and Table 3, Exception Reports.
- [x] R1 Field chain-of-custody documentation
- [x] R2 Sample identification cross-reference
- [x] R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - (a) Items specified in NELAC Chapter 5 for reporting results, e.g., Section 5.5.10 in 2003 NELAC Standard
  - (b) Dilution factors
  - (c) Preparation methods
  - (d) Cleanup methods
  - (e) If required for the project, tentatively identified compounds (TICs)
- [x] R4 Surrogate recovery data including:
  - (a) Calculated recovery (%R)
  - (b) The laboratory's surrogate QC limits
- [x] R5 Test reports/summary forms for blank samples
- [x] R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - (a) LCS spiking amounts
  - (b) Calculated %R for each analyte
  - (c) The laboratory's LCS QC limits
- [x] R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - (a) Samples associated with the MS/MSD clearly identified
  - (b) MS/MSD spiking amounts
  - (c) Concentration of each MS/MSD analyte measured in the parent and spiked samples
  - (d) Calculated %Rs and relative percent differences (RPDs)
  - (e) The laboratory's MS/MSD QC limits
- [x] R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - (a) The amount of analyte measured in the duplicate
  - (b) The calculated RPD
  - (c) The laboratory's QC limits for analytical duplicates
- [x] R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix
- [x] R10 Other problems or anomalies
- [x] The Exception Report for every item for which the result is "No" or "NR" (Not Reviewed)

Release Statement: I am responsible for the release of this laboratory data package. This data package as been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, if applicable: (●) This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Tim E Arnold		Chemist Principal	2/21/2025
Name (printed)	Signature	Official Title	Date

Ion Chromatography Laboratory Review Checklist

Table 1. Reportable Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Annual Screening - CCR

Reviewer Name: Tim E Arnold

LRC Date: 2/21/2025

Laboratory Job Number: 250418

Prep Batch Number(s): QC2502142

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
R1	O, I	**Chain-of-custody (COC)**		
	I	Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	Yes	
	I	Were all departures from standard conditions described in an exception report?	Yes	
R2	O, I	**Sample and quality control (QC) identification**		
	I	Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	Yes	
	I	Are all laboratory ID numbers cross-referenced to the corresponding QC data?	Yes	
R3	O, I	**Test reports**		
	I	Were all samples prepared and analyzed within holding times?	Yes	
	I	Other than those results < MQL, were all other raw values bracketed by calibration standards?	Yes	
	I	Were calculations checked by a peer or supervisor?	Yes	
	I	Were all analyte identifications checked by a peer or supervisor?	Yes	
	I	Were sample quantitation limits reported for all analytes not detected?	Yes	
	I	Were all results for soil and sediment samples reported on a dry weight basis?	NA	
	I	Was % moisture (or solids) reported for all soil and sediment samples?	NA	
	I	If required for the project, TICs reported?	NA	
R4	O	**Surrogate recovery data**		
	I	Were surrogates added prior to extraction?	Yes	
	I	Were surrogate percent recoveries in all samples within the laboratory QC limits?	Yes	
R5	O, I	**Test reports/summary forms for blank samples**		
	I	Were appropriate type(s) of blanks analyzed?	Yes	
	I	Were blanks analyzed at the appropriate frequency?	Yes	

Ion Chromatography Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
	I	Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	Yes	
	I	Were blank concentrations < MQL?	Yes	
R6	O, I	**Laboratory control samples (LCS):**		
	I	Were all COCs included in the LCS?	Yes	
	I	Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	Yes	
	I	Were LCSs analyzed at the required frequency?	Yes	
	I	Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	Yes	
	I	Was the LCSD RPD within QC limits?	Yes	
R7	O, I	**Matrix spike (MS) and matrix spike duplicate (MSD) data**		
	I	Were the project/method specified analytes included in the MS and MSD?	Yes	
	I	Were MS/MSD analyzed at the appropriate frequency?	Yes	
	I	Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Were MS/MSD RPDs within laboratory QC limits?	Yes	
R8	O, I	**Analytical duplicate data**		
	I	Were appropriate analytical duplicates analyzed for each matrix?	Yes	
	I	Were analytical duplicates analyzed at the appropriate frequency?	Yes	
	I	Were RPDs or relative standard deviations within the laboratory QC limits?	Yes	
R9	O, I	**Method quantitation limits (MQLs):**		
	I	Are the MQLs for each method analyte included in the laboratory data package?	Yes	
	I	Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	Yes	
	I	Are unadjusted MQLs included in the laboratory data package?	Yes	
R10	O, I	**Other problems/anomalies**		
	I	Are all known problems/anomalies/special conditions noted in this LRC and ER?	Yes	
	I	Were all necessary corrective actions performed for the reported data?	Yes	
	I	Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	Yes	

Ion Chromatography Laboratory Review Checklist

Table 2. Supporting Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Annual Screening - CCR

Reviewer Name: Tim E Arnold

LRC Date: 2/21/2025

Laboratory Job Number: 250418

Prep Batch Number(s): QC2502142

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S1	O, I	**Initial calibration (ICAL)**		
	I	Were response factors and/or relative response factors for each analyte within QC limits?	NA	
	I	Were percent RSDs or correlation coefficient criteria met?	Yes	
	I	Was the number of standards recommended in the method used for all analytes?	Yes	
	I	Were all points generated between the lowest and highest standard used to calculate the curve?	Yes	
	I	Are ICAL data available for all instruments used?	Yes	
	I	Has the initial calibration curve been verified using an appropriate second source standard?	Yes	
S2	O, I	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):**		
	I	Was the CCV analyzed at the method-required frequency?	Yes	
	I	Were percent differences for each analyte within the method-required QC limits?	Yes	
	I	Was the ICAL curve verified for each analyte?	Yes	
	I	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	No	ER1
S3	O	**Mass spectral tuning:**		
	I	Was the appropriate compound for the method used for tuning?	NA	
	I	Were ion abundance data within the method-required QC limits?	NA	
S4	O	**Internal standards (IS):**		
	I	Were IS area counts and retention times within the method-required QC limits?	NA	
S5	O, I	**Raw data (NELAC section 1 appendix A glossary, and section 5.)**		
	I	Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Yes	
	I	Were data associated with manual integrations flagged on the raw data?	NA	

Ion Chromatography Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S6	O	**Dual column confirmation**		
	I	Did dual column confirmation results meet the method-required QC?	NA	
S7	O	**Tentatively identified compounds (TICs):**		
	I	If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?	NA	
S8	I	**Interference Check Sample (ICS) results:**		
	I	Were percent recoveries within method QC limits?	NA	
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**		
	I	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	NA	
S10	O, I	**Method detection limit (MDL) studies**		
	I	Was a MDL study performed for each reported analyte?	Yes	
	I	Is the MDL either adjusted or supported by the analysis of DCSs?	Yes	
S11	O, I	**Proficiency test reports:**		
	I	Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Yes	
S12	O, I	**Standards documentation**		
	I	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Yes	
S13	O, I	**Compound/analyte identification procedures**		
	I	Are the procedures for compound/analyte identification documented?	Yes	
S14	O, I	**Demonstration of analyst competency (DOC)**		
	I	Was DOC conducted consistent with NELAC Chapter 5C?	Yes	
	I	Is documentation of the analyst's competency up-to-date and on file?	Yes	
S15	O, I	**Verification/validation documentation for methods (NELAC Chap 5n 5)**		
	I	Are all the methods used to generate the data documented, verified, and validated, where applicable?	Yes	
S16	O, I	**Laboratory standard operating procedures (SOPs):**		
	I	Are laboratory SOPs current and on file for each method performed?	Yes	

Table 3. Exception Reports.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Annual Screening - CCR

Reviewer Name: Tim E Arnold

LRC Date: 2/21/2025

Laboratory Job Number: 250418

Prep Batch Number(s): QC2502142

Exception Report No.	Description
ER1	CCB acceptance criteria is CCB<MQL.

[1] Items identified by the letter "R" must be available as a hard copy or as a .pdf file. Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

[2] O - organic analyses; I - inorganic analyses (including general chemistry constituents, when applicable).

[3] NA - Not applicable; NR - Not reviewed.

[4] Exception Report identification number; an Exception Report should be completed for an item if the result is "No" or "NR."

Municipal Solid Waste Laboratory Review Checklist

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- [x] R1 Field chain-of-custody documentation
- [x] R2 Sample identification cross-reference
- [x] R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - (a) Items specified in NELAC Chapter 5 for reporting results, e.g., Section 5.5.10 in 2003 NELAC Standard
  - (b) Dilution factors
  - (c) Preparation methods
  - (d) Cleanup methods
  - (e) If required for the project, tentatively identified compounds (TICs)
- [NA] R4 Surrogate recovery data including:
  - (a) Calculated recovery (%R)
  - (b) The laboratory's surrogate QC limits
- [x] R5 Test reports/summary forms for blank samples
- [x] R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - (a) LCS spiking amounts
  - (b) Calculated %R for each analyte
  - (c) The laboratory's LCS QC limits
- [x] R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - (a) Samples associated with the MS/MSD clearly identified
  - (b) MS/MSD spiking amounts
  - (c) Concentration of each MS/MSD analyte measured in the parent and spiked samples
  - (d) Calculated %Rs and relative percent differences (RPDs)
  - (e) The laboratory's MS/MSD QC limits
- [x] R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - (a) The amount of analyte measured in the duplicate
  - (b) The calculated RPD
  - (c) The laboratory's QC limits for analytical duplicates
- [x] R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix
- [x] R10 Other problems or anomalies
- [x] The Exception Report for every item for which the result is "No" or "NR" (Not Reviewed)

Release Statement: I am responsible for the release of this laboratory data package. This data package as been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, if applicable: (●) This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Sandra Williams	Sandra D. Williams	Chemist	3-5-2025
Name (printed)	Signature	Official Title	Date

TDS Laboratory Review Checklist

Table 1. Reportable Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh PS

Reviewer Name: Sandra Williams

LRC Date: 3-5-2025

Laboratory Job Number: 250418

Prep Batch Number(s): QC2502123

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
R1	O, I	**Chain-of-custody (COC)**		
	I	Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	Yes	
	I	Were all departures from standard conditions described in an exception report?	NA	
R2	O, I	**Sample and quality control (QC) identification**		
	I	Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	Yes	
	I	Are all laboratory ID numbers cross-referenced to the corresponding QC data?	Yes	
R3	O, I	**Test reports**		
	I	Were all samples prepared and analyzed within holding times?	Yes	
	I	Other than those results < MQL, were all other raw values bracketed by calibration standards?	NA	
	I	Were calculations checked by a peer or supervisor?	Yes	
	I	Were all analyte identifications checked by a peer or supervisor?	Yes	
	I	Were sample quantitation limits reported for all analytes not detected?	Yes	
	I	Were all results for soil and sediment samples reported on a dry weight basis?	NA	
	I	Was % moisture (or solids) reported for all soil and sediment samples?	NA	
	I	If required for the project, TICs reported?	NA	
R4	O	**Surrogate recovery data**		
	I	Were surrogates added prior to extraction?	NA	
	I	Were surrogate percent recoveries in all samples within the laboratory QC limits?	NA	
R5	O, I	**Test reports/summary forms for blank samples**		
	I	Were appropriate type(s) of blanks analyzed?	Yes	
	I	Were blanks analyzed at the appropriate frequency?	Yes	

TDS Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
	I	Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	Yes	
	I	Were blank concentrations < MQL?	Yes	
R6	O, I	**Laboratory control samples (LCS):**		
	I	Were all COCs included in the LCS?	Yes	
	I	Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	Yes	
	I	Were LCSs analyzed at the required frequency?	Yes	
	I	Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	Yes	
	I	Was the LCSD RPD within QC limits?	Yes	
R7	O, I	**Matrix spike (MS) and matrix spike duplicate (MSD) data**		
	I	Were the project/method specified analytes included in the MS and MSD?	NA	
	I	Were MS/MSD analyzed at the appropriate frequency?	NA	
	I	Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	NA	
	I	Were MS/MSD RPDs within laboratory QC limits?	NA	
R8	O, I	**Analytical duplicate data**		
	I	Were appropriate analytical duplicates analyzed for each matrix?	Yes	
	I	Were analytical duplicates analyzed at the appropriate frequency?	Yes	
	I	Were RPDs or relative standard deviations within the laboratory QC limits?	Yes	
R9	O, I	**Method quantitation limits (MQLs):**		
	I	Are the MQLs for each method analyte included in the laboratory data package?	Yes	
	I	Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	Yes	
	I	Are unadjusted MQLs included in the laboratory data package?	Yes	
R10	O, I	**Other problems/anomalies**		
	I	Are all known problems/anomalies/special conditions noted in this LRC and ER?	Yes	
	I	Were all necessary corrective actions performed for the reported data?	Yes	
	I	Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	Yes	

Table 2. Supporting Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh PS

Reviewer Name: Sandra Williams

LRC Date: 3-5-2025

Laboratory Job Number: 250418

Prep Batch Number(s): QC2502123

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S1	O, I	**Initial calibration (ICAL)**		
	I	Were response factors and/or relative response factors for each analyte within QC limits?	NA	
	I	Were percent RSDs or correlation coefficient criteria met?	NA	
	I	Was the number of standards recommended in the method used for all analytes?	NA	
	I	Were all points generated between the lowest and highest standard used to calculate the curve?	NA	
	I	Are ICAL data available for all instruments used?	NA	
	I	Has the initial calibration curve been verified using an appropriate second source standard?	NA	
S2	O, I	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):**		
	I	Was the CCV analyzed at the method-required frequency?	NA	
	I	Were percent differences for each analyte within the method-required QC limits?	NA	
	I	Was the ICAL curve verified for each analyte?	NA	
	I	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	NA	
S3	O	**Mass spectral tuning:**		
	I	Was the appropriate compound for the method used for tuning?	NA	
	I	Were ion abundance data within the method-required QC limits?	NA	
S4	O	**Internal standards (IS):**		
	I	Were IS area counts and retention times within the method-required QC limits?	NA	
S5	O, I	**Raw data (NELAC section 1 appendix A glossary, and section 5.)**		
	I	Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Yes	
	I	Were data associated with manual integrations flagged on the raw data?	NA	

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S6	O	**Dual column confirmation**		
	I	Did dual column confirmation results meet the method-required QC?	NA	
S7	O	**Tentatively identified compounds (TICs):**		
	I	If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?	NA	
S8	I	**Interference Check Sample (ICS) results:**		
	I	Were percent recoveries within method QC limits?	NA	
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**		
	I	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	NA	
S10	O, I	**Method detection limit (MDL) studies**		
	I	Was a MDL study performed for each reported analyte?	Yes	
	I	Is the MDL either adjusted or supported by the analysis of DCSs?	Yes	
S11	O, I	**Proficiency test reports:**		
	I	Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Yes	
S12	O, I	**Standards documentation**		
	I	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Yes	
S13	O, I	**Compound/analyte identification procedures**		
	I	Are the procedures for compound/analyte identification documented?	Yes	
S14	O, I	**Demonstration of analyst competency (DOC)**		
	I	Was DOC conducted consistent with NELAC Chapter 5C?	Yes	
	I	Is documentation of the analyst's competency up-to-date and on file?	Yes	
S15	O, I	**Verification/validation documentation for methods (NELAC Chap 5n 5)**		
	I	Are all the methods used to generate the data documented, verified, and validated, where applicable?	Yes	
S16	O, I	**Laboratory standard operating procedures (SOPs):**		
	I	Are laboratory SOPs current and on file for each method performed?	Yes	

Table 3. Exception Reports.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh PS

Reviewer Name: Sandra Williams

LRC Date: 3-5-2025

Laboratory Job Number: 250418

Prep Batch Number(s): QC2502123

Exception Report No.	Description

[1] Items identified by the letter "R" must be available as a hard copy or as a .pdf file. Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
[2] O - organic analyses; I - inorganic analyses (including general chemistry constituents, when applicable).
[3] NA - Not applicable; NR - Not reviewed.
[4] Exception Report identification number; an Exception Report should be completed for an item if the result is "No" or "NR."

Municipal Solid Waste Laboratory Review Checklist

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  - (a) Items specified in NELAC Chapter 5 for reporting results, e.g., Section 5.5.10 in 2003 NELAC Standard
  - (b) Dilution factors
  - (c) Preparation methods
  - (d) Cleanup methods
  - (e) If required for the project, tentatively identified compounds (TICs)
- [NR] R4 Surrogate recovery data including:
  - (a) Calculated recovery (%R)
  - (b) The laboratory's surrogate QC limits
- [x] R5 Test reports/summary forms for blank samples
- [x] R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - (a) LCS spiking amounts
  - (b) Calculated %R for each analyte
  - (c) The laboratory's LCS QC limits
- [x] R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - (a) Samples associated with the MS/MSD clearly identified
  - (b) MS/MSD spiking amounts
  - (c) Concentration of each MS/MSD analyte measured in the parent and spiked samples
  - (d) Calculated %Rs and relative percent differences (RPDs)
  - (e) The laboratory's MS/MSD QC limits
- [x] R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - (a) The amount of analyte measured in the duplicate
  - (b) The calculated RPD
  - (c) The laboratory's QC limits for analytical duplicates
- [x] R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix
- [x] R10 Other problems or anomalies
- [x] The Exception Report for every item for which the result is "No" or "NR" (Not Reviewed)

Release Statement: I am responsible for the release of this laboratory data package. This data package as been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, if applicable: (●) This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Michael Ohlinger	Michael Ohlinger	Chemist	02/28/2025
Name (printed)	Signature	Official Title	Date

Alkalinity Laboratory Review Checklist

Table 1. Reportable Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Pirkey Plant

Reviewer Name: Michael Ohlinger

LRC Date: 02/28/2025

Laboratory Job Number: 250418

Prep Batch Number(s): QC2502104

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
R1	O, I	**Chain-of-custody (COC)**		
	I	Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	Yes	
	I	Were all departures from standard conditions described in an exception report?	Yes	
R2	O, I	**Sample and quality control (QC) identification**		
	I	Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	Yes	
	I	Are all laboratory ID numbers cross-referenced to the corresponding QC data?	Yes	
R3	O, I	**Test reports**		
	I	Were all samples prepared and analyzed within holding times?	Yes	
	I	Other than those results < MQL, were all other raw values bracketed by calibration standards?	NA	
	I	Were calculations checked by a peer or supervisor?	Yes	
	I	Were all analyte identifications checked by a peer or supervisor?	Yes	
	I	Were sample quantitation limits reported for all analytes not detected?	Yes	
	I	Were all results for soil and sediment samples reported on a dry weight basis?	NA	
	I	Was % moisture (or solids) reported for all soil and sediment samples?	NA	
	I	If required for the project, TICs reported?	NA	
R4	O	**Surrogate recovery data**		
	I	Were surrogates added prior to extraction?	NA	
	I	Were surrogate percent recoveries in all samples within the laboratory QC limits?	NA	
R5	O, I	**Test reports/summary forms for blank samples**		
	I	Were appropriate type(s) of blanks analyzed?	Yes	
	I	Were blanks analyzed at the appropriate frequency?	Yes	

Alkalinity Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
	I	Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	Yes	
	I	Were blank concentrations < MQL?	Yes	
R6	O, I	**Laboratory control samples (LCS):**		
	I	Were all COCs included in the LCS?	Yes	
	I	Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	Yes	
	I	Were LCSs analyzed at the required frequency?	Yes	
	I	Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	Yes	
	I	Was the LCSD RPD within QC limits?	Yes	
R7	O, I	**Matrix spike (MS) and matrix spike duplicate (MSD) data**		
	I	Were the project/method specified analytes included in the MS and MSD?	NA	
	I	Were MS/MSD analyzed at the appropriate frequency?	NA	
	I	Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	NA	
	I	Were MS/MSD RPDs within laboratory QC limits?	NA	
R8	O, I	**Analytical duplicate data**		
	I	Were appropriate analytical duplicates analyzed for each matrix?	Yes	
	I	Were analytical duplicates analyzed at the appropriate frequency?	Yes	
	I	Were RPDs or relative standard deviations within the laboratory QC limits?	Yes	
R9	O, I	**Method quantitation limits (MQLs):**		
	I	Are the MQLs for each method analyte included in the laboratory data package?	Yes	
	I	Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	Yes	
	I	Are unadjusted MQLs included in the laboratory data package?	Yes	
R10	O, I	**Other problems/anomalies**		
	I	Are all known problems/anomalies/special conditions noted in this LRC and ER?	Yes	
	I	Were all necessary corrective actions performed for the reported data?	Yes	
	I	Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	Yes	

Alkalinity Laboratory Review Checklist

Table 2. Supporting Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Pirkey Plant

Reviewer Name: Michael Ohlinger

LRC Date: 02/28/2025

Laboratory Job Number: 250418

Prep Batch Number(s): QC2502104

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S1	O, I	**Initial calibration (ICAL)**		
	I	Were response factors and/or relative response factors for each analyte within QC limits?	NA	
	I	Were percent RSDs or correlation coefficient criteria met?	NA	
	I	Was the number of standards recommended in the method used for all analytes?	NA	
	I	Were all points generated between the lowest and highest standard used to calculate the curve?	Yes	
	I	Are ICAL data available for all instruments used?	NA	
	I	Has the initial calibration curve been verified using an appropriate second source standard?	NA	
S2	O, I	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):**		
	I	Was the CCV analyzed at the method-required frequency?	Yes	
	I	Were percent differences for each analyte within the method-required QC limits?	Yes	
	I	Was the ICAL curve verified for each analyte?	Yes	
	I	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	No	ER1
S3	O	**Mass spectral tuning:**		
	I	Was the appropriate compound for the method used for tuning?	NA	
	I	Were ion abundance data within the method-required QC limits?	NA	
S4	O	**Internal standards (IS):**		
	I	Were IS area counts and retention times within the method-required QC limits?	NA	
S5	O, I	**Raw data (NELAC section 1 appendix A glossary, and section 5.)**		
	I	Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Yes	
	I	Were data associated with manual integrations flagged on the raw data?	NA	

Alkalinity Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S6	O	**Dual column confirmation**		
	I	Did dual column confirmation results meet the method-required QC?	NA	
S7	O	**Tentatively identified compounds (TICs):**		
	I	If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?	NA	
S8	I	**Interference Check Sample (ICS) results:**		
	I	Were percent recoveries within method QC limits?	NA	
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**		
	I	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	NA	
S10	O, I	**Method detection limit (MDL) studies**		
	I	Was a MDL study performed for each reported analyte?	Yes	
	I	Is the MDL either adjusted or supported by the analysis of DCSs?	Yes	
S11	O, I	**Proficiency test reports:**		
	I	Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Yes	
S12	O, I	**Standards documentation**		
	I	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Yes	
S13	O, I	**Compound/analyte identification procedures**		
	I	Are the procedures for compound/analyte identification documented?	Yes	
S14	O, I	**Demonstration of analyst competency (DOC)**		
	I	Was DOC conducted consistent with NELAC Chapter 5C?	Yes	
	I	Is documentation of the analyst's competency up-to-date and on file?	Yes	
S15	O, I	**Verification/validation documentation for methods (NELAC Chap 5n 5)**		
	I	Are all the methods used to generate the data documented, verified, and validated, where applicable?	Yes	
S16	O, I	**Laboratory standard operating procedures (SOPs):**		
	I	Are laboratory SOPs current and on file for each method performed?	Yes	

Alkalinity Laboratory Review Checklist

Table 3. Exception Reports.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Pirkey Plant

Reviewer Name: Michael Ohlinger

LRC Date: 02/28/2025

Laboratory Job Number: 250418

Prep Batch Number(s): QC2502104

Exception Report No.	Description
ER1	CCB acceptance criteria is CCB<0.5*MQL.

[1] Items identified by the letter "R" must be available as a hard copy or as a .pdf file. Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

[2] O - organic analyses; I - inorganic analyses (including general chemistry constituents, when applicable).

[3] NA - Not applicable; NR - Not reviewed.

[4] Exception Report identification number; an Exception Report should be completed for an item if the result is "No" or "NR."

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 251171 **Customer: Welsh Power Station** **Date Reported: 05/30/2025**

Customer Sample ID: AD-1
Lab Number: 251171-001
Date Collected: 04/29/2025 10:59 EDT

Customer Description:
Preparation:
Date Received: 05/05/2025 11:00 EDT

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	0.105	µg/L	1	0.100	0.008		GES	05/08/2025 17:44	EPA 200.8-1994, Rev. 5.4
Arsenic	0.16	µg/L	1	0.10	0.03		GES	05/08/2025 17:44	EPA 200.8-1994, Rev. 5.4
Barium	110	µg/L	1	0.20	0.05		GES	05/08/2025 17:44	EPA 200.8-1994, Rev. 5.4
Beryllium	1.31	µg/L	1	0.050	0.007		GES	05/08/2025 17:44	EPA 200.8-1994, Rev. 5.4
Boron	0.916	mg/L	1	0.050	0.007		GES	05/08/2025 17:44	EPA 200.8-1994, Rev. 5.4
Cadmium	0.049	µg/L	1	0.020	0.004		GES	05/08/2025 17:44	EPA 200.8-1994, Rev. 5.4
Calcium	19.7	mg/L	1	0.05	0.02		GES	05/08/2025 17:44	EPA 200.8-1994, Rev. 5.4
Chromium	0.43	µg/L	1	0.30	0.07		GES	05/08/2025 17:44	EPA 200.8-1994, Rev. 5.4
Cobalt	3.76	µg/L	1	0.020	0.005		GES	05/08/2025 17:44	EPA 200.8-1994, Rev. 5.4
Lead	4.61	µg/L	1	0.20	0.05		GES	05/08/2025 17:44	EPA 200.8-1994, Rev. 5.4
Lithium	0.00851	mg/L	1	0.00030	0.00006		GES	05/08/2025 17:44	EPA 200.8-1994, Rev. 5.4
Mercury	<2	ng/L	1	5	2	U1	RLP	05/06/2025 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	05/08/2025 17:44	EPA 200.8-1994, Rev. 5.4
Selenium	10.9	µg/L	1	0.50	0.04		GES	05/08/2025 17:44	EPA 200.8-1994, Rev. 5.4
Thallium	0.04	µg/L	1	0.20	0.02	J1	GES	05/08/2025 17:44	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method
Radium-226	2.02	pCi/L	0.39	0.42		WCG	05/09/2025 16:44	SW-846 9315-1986, Rev. 0
Carrier Recovery	87.7	%						
Radium-228	0.90	pCi/L	0.17	0.56		TTP	05/22/2025 19:08	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	79.1	%						

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 251171 **Customer: Welsh Power Station** **Date Reported: 05/30/2025**

Customer Sample ID: AD-5
Lab Number: 251171-002
Date Collected: 04/29/2025 12:04 EDT

Customer Description:
Preparation:
Date Received: 05/05/2025 11:00 EDT

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	0.008	µg/L	1	0.100	0.008	J1	GES	05/08/2025 18:55	EPA 200.8-1994, Rev. 5.4
Arsenic	2.88	µg/L	1	0.10	0.03		GES	05/08/2025 18:55	EPA 200.8-1994, Rev. 5.4
Barium	48.1	µg/L	1	0.20	0.05		GES	05/08/2025 18:55	EPA 200.8-1994, Rev. 5.4
Beryllium	0.080	µg/L	1	0.050	0.007		GES	05/08/2025 18:55	EPA 200.8-1994, Rev. 5.4
Boron	0.027	mg/L	1	0.050	0.007	J1	GES	05/08/2025 18:55	EPA 200.8-1994, Rev. 5.4
Cadmium	<0.004	µg/L	1	0.020	0.004	U1	GES	05/08/2025 18:55	EPA 200.8-1994, Rev. 5.4
Calcium	22.5	mg/L	1	0.05	0.02		GES	05/08/2025 18:55	EPA 200.8-1994, Rev. 5.4
Chromium	0.41	µg/L	1	0.30	0.07		GES	05/08/2025 18:55	EPA 200.8-1994, Rev. 5.4
Cobalt	10.3	µg/L	1	0.020	0.005		GES	05/08/2025 18:55	EPA 200.8-1994, Rev. 5.4
Lead	<0.05	µg/L	1	0.20	0.05	U1	GES	05/08/2025 18:55	EPA 200.8-1994, Rev. 5.4
Lithium	0.0933	mg/L	1	0.00030	0.00006		GES	05/08/2025 18:55	EPA 200.8-1994, Rev. 5.4
Mercury	<2	ng/L	1	5	2	U1	RLP	05/06/2025 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	05/08/2025 18:55	EPA 200.8-1994, Rev. 5.4
Selenium	<0.04	µg/L	1	0.50	0.04	U1	GES	05/08/2025 18:55	EPA 200.8-1994, Rev. 5.4
Thallium	<0.02	µg/L	1	0.20	0.02	U1	GES	05/08/2025 18:55	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method
Radium-226	0.48	pCi/L	0.11	0.18		ST	05/27/2025 10:05	SW-846 9315-1986, Rev. 0
Carrier Recovery	91.5	%						
Radium-228	0.60	pCi/L	0.17	0.57		TTP	05/22/2025 19:08	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	83.6	%						

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 251171 **Customer: Welsh Power Station** **Date Reported: 05/30/2025**

Customer Sample ID: AD-17
Lab Number: 251171-003
Date Collected: 04/29/2025 12:07 EDT

Customer Description:
Preparation:
Date Received: 05/05/2025 11:00 EDT

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	0.019	µg/L	1	0.100	0.008	J1	GES	05/08/2025 19:00	EPA 200.8-1994, Rev. 5.4
Arsenic	0.81	µg/L	1	0.10	0.03		GES	05/08/2025 19:00	EPA 200.8-1994, Rev. 5.4
Barium	9.95	µg/L	1	0.20	0.05		GES	05/08/2025 19:00	EPA 200.8-1994, Rev. 5.4
Beryllium	0.079	µg/L	1	0.050	0.007		GES	05/08/2025 19:00	EPA 200.8-1994, Rev. 5.4
Boron	0.106	mg/L	1	0.050	0.007		GES	05/08/2025 19:00	EPA 200.8-1994, Rev. 5.4
Cadmium	0.007	µg/L	1	0.020	0.004	J1	GES	05/08/2025 19:00	EPA 200.8-1994, Rev. 5.4
Calcium	201	mg/L	10	0.5	0.2		GES	05/22/2025 13:32	EPA 200.8-1994, Rev. 5.4
Chromium	0.56	µg/L	1	0.30	0.07		GES	05/08/2025 19:00	EPA 200.8-1994, Rev. 5.4
Cobalt	61.6	µg/L	1	0.020	0.005		GES	05/08/2025 19:00	EPA 200.8-1994, Rev. 5.4
Lead	0.16	µg/L	1	0.20	0.05	J1	GES	05/08/2025 19:00	EPA 200.8-1994, Rev. 5.4
Lithium	0.285	mg/L	1	0.00030	0.00006		GES	05/08/2025 19:00	EPA 200.8-1994, Rev. 5.4
Mercury	<2	ng/L	1	5	2	U1	RLP	05/06/2025 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	0.1	µg/L	1	0.5	0.1	J1	GES	05/08/2025 19:00	EPA 200.8-1994, Rev. 5.4
Selenium	0.32	µg/L	1	0.50	0.04	J1	GES	05/08/2025 19:00	EPA 200.8-1994, Rev. 5.4
Thallium	0.02	µg/L	1	0.20	0.02	J1	GES	05/08/2025 19:00	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method
Radium-226	0.48	pCi/L	0.11	0.21		ST	05/27/2025 10:05	SW-846 9315-1986, Rev. 0
Carrier Recovery	99.6	%						
Radium-228	0.82	pCi/L	0.12	0.39		TTP	05/22/2025 19:08	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	91.5	%						

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 251171 **Customer: Welsh Power Station** **Date Reported: 05/30/2025**

Customer Sample ID: DUPLICATE - BACKGROUND
Lab Number: 251171-004
Date Collected: 04/29/2025 12:00 EDT

Customer Description:
Preparation:
Date Received: 05/05/2025 11:00 EDT

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	0.037	µg/L	1	0.100	0.008	J1	GES	05/08/2025 19:06	EPA 200.8-1994, Rev. 5.4
Arsenic	0.16	µg/L	1	0.10	0.03		GES	05/08/2025 19:06	EPA 200.8-1994, Rev. 5.4
Barium	106	µg/L	1	0.20	0.05		GES	05/08/2025 19:06	EPA 200.8-1994, Rev. 5.4
Beryllium	1.35	µg/L	1	0.050	0.007		GES	05/08/2025 19:06	EPA 200.8-1994, Rev. 5.4
Boron	0.895	mg/L	1	0.050	0.007		GES	05/08/2025 19:06	EPA 200.8-1994, Rev. 5.4
Cadmium	0.047	µg/L	1	0.020	0.004		GES	05/08/2025 19:06	EPA 200.8-1994, Rev. 5.4
Calcium	18.9	mg/L	1	0.05	0.02		GES	05/08/2025 19:06	EPA 200.8-1994, Rev. 5.4
Chromium	0.35	µg/L	1	0.30	0.07		GES	05/08/2025 19:06	EPA 200.8-1994, Rev. 5.4
Cobalt	3.77	µg/L	1	0.020	0.005		GES	05/08/2025 19:06	EPA 200.8-1994, Rev. 5.4
Lead	0.14	µg/L	1	0.20	0.05	J1	GES	05/08/2025 19:06	EPA 200.8-1994, Rev. 5.4
Lithium	0.00845	mg/L	1	0.00030	0.00006		GES	05/08/2025 19:06	EPA 200.8-1994, Rev. 5.4
Mercury	<2	ng/L	1	5	2	U1	RLP	05/06/2025 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	05/08/2025 19:06	EPA 200.8-1994, Rev. 5.4
Selenium	10.8	µg/L	1	0.50	0.04		GES	05/08/2025 19:06	EPA 200.8-1994, Rev. 5.4
Thallium	0.05	µg/L	1	0.20	0.02	J1	GES	05/08/2025 19:06	EPA 200.8-1994, Rev. 5.4

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 251171 **Customer: Welsh Power Station** **Date Reported: 05/30/2025**

Customer Sample ID: EQUIPMENT BLANK - BACKGROUND
Customer Description:
Lab Number: 251171-005
Preparation:
Date Collected: 04/29/2025 11:58 EDT
Date Received: 05/05/2025 11:00 EDT

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	0.050	µg/L	1	0.100	0.008	J1	GES	05/08/2025 19:11	EPA 200.8-1994, Rev. 5.4
Arsenic	<0.03	µg/L	1	0.10	0.03	U1	GES	05/08/2025 19:11	EPA 200.8-1994, Rev. 5.4
Barium	0.11	µg/L	1	0.20	0.05	J1	GES	05/08/2025 19:11	EPA 200.8-1994, Rev. 5.4
Beryllium	<0.007	µg/L	1	0.050	0.007	U1	GES	05/08/2025 19:11	EPA 200.8-1994, Rev. 5.4
Boron	<0.007	mg/L	1	0.050	0.007	U1	GES	05/08/2025 19:11	EPA 200.8-1994, Rev. 5.4
Cadmium	<0.004	µg/L	1	0.020	0.004	U1	GES	05/08/2025 19:11	EPA 200.8-1994, Rev. 5.4
Calcium	<0.02	mg/L	1	0.05	0.02	U1	GES	05/08/2025 19:11	EPA 200.8-1994, Rev. 5.4
Chromium	0.28	µg/L	1	0.30	0.07	J1	GES	05/08/2025 19:11	EPA 200.8-1994, Rev. 5.4
Cobalt	<0.005	µg/L	1	0.020	0.005	U1	GES	05/08/2025 19:11	EPA 200.8-1994, Rev. 5.4
Lead	<0.05	µg/L	1	0.20	0.05	U1	GES	05/08/2025 19:11	EPA 200.8-1994, Rev. 5.4
Lithium	0.00008	mg/L	1	0.00030	0.00006	J1	GES	05/08/2025 19:11	EPA 200.8-1994, Rev. 5.4
Mercury	<2	ng/L	1	5	2	U1	RLP	05/06/2025 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	05/08/2025 19:11	EPA 200.8-1994, Rev. 5.4
Selenium	<0.04	µg/L	1	0.50	0.04	U1	GES	05/08/2025 19:11	EPA 200.8-1994, Rev. 5.4
Thallium	<0.02	µg/L	1	0.20	0.02	U1	GES	05/08/2025 19:11	EPA 200.8-1994, Rev. 5.4

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 251171 **Customer: Welsh Power Station** **Date Reported: 05/30/2025**

Customer Sample ID: FIELD BLANK - BACKGROUND
Lab Number: 251171-006
Date Collected: 04/29/2025 11:59 EDT

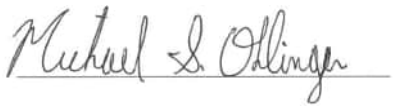
Customer Description:
Preparation:
Date Received: 05/05/2025 11:00 EDT

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	0.019	µg/L	1	0.100	0.008	J1	GES	05/08/2025 19:17	EPA 200.8-1994, Rev. 5.4
Arsenic	<0.03	µg/L	1	0.10	0.03	U1	GES	05/08/2025 19:17	EPA 200.8-1994, Rev. 5.4
Barium	0.14	µg/L	1	0.20	0.05	J1	GES	05/08/2025 19:17	EPA 200.8-1994, Rev. 5.4
Beryllium	<0.007	µg/L	1	0.050	0.007	U1	GES	05/08/2025 19:17	EPA 200.8-1994, Rev. 5.4
Boron	<0.007	mg/L	1	0.050	0.007	U1	GES	05/08/2025 19:17	EPA 200.8-1994, Rev. 5.4
Cadmium	<0.004	µg/L	1	0.020	0.004	U1	GES	05/08/2025 19:17	EPA 200.8-1994, Rev. 5.4
Calcium	<0.02	mg/L	1	0.05	0.02	U1	GES	05/08/2025 19:17	EPA 200.8-1994, Rev. 5.4
Chromium	0.25	µg/L	1	0.30	0.07	J1	GES	05/08/2025 19:17	EPA 200.8-1994, Rev. 5.4
Cobalt	0.005	µg/L	1	0.020	0.005	J1	GES	05/08/2025 19:17	EPA 200.8-1994, Rev. 5.4
Lead	<0.05	µg/L	1	0.20	0.05	U1	GES	05/08/2025 19:17	EPA 200.8-1994, Rev. 5.4
Lithium	<0.00006	mg/L	1	0.00030	0.00006	U1	GES	05/08/2025 19:17	EPA 200.8-1994, Rev. 5.4
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	05/08/2025 19:17	EPA 200.8-1994, Rev. 5.4
Selenium	<0.04	µg/L	1	0.50	0.04	U1	GES	05/08/2025 19:17	EPA 200.8-1994, Rev. 5.4
Thallium	<0.02	µg/L	1	0.20	0.02	U1	GES	05/08/2025 19:17	EPA 200.8-1994, Rev. 5.4

Report Verification

This report and the above data have been confirmed by the following analyst.



Michael Ohlinger, Chemist
Email: msohlinger@aep.com
Phone: 614-836-4184
Audinet: 8-210-4184

THIS TEST REPORT RELATES ONLY TO THE ITEMS TESTED AND SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT WRITTEN APPROVAL OF THE LABORATORY. ALL TEST RESULTS MEET ALL OF THE REQUIREMENTS OF THE ACCREDITING AUTHORITY, UNLESS OTHERWISE NOTED. ALL TIMES LISTED ARE IN THE EASTERN TIME ZONE.

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 251171 **Customer: Welsh Power Station** **Date Reported: 05/30/2025**

Data Qualifer Legend

U1 - Not detected at or below method detection limit (MDL).

J1 - Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.

Chain of Custody Record

Program: Coal Combustion Residuals (CCR)

Dolan Chemical Laboratory (DCL)
4001 Bixby Road
Groveport, Ohio 43125

Contacts: Michael Ohlinger (614-836-4184)

Project Name: Welsh Background
Contact Name: Pryce Warren
Contact Phone: (325) 310-6668
Sampler(s): Matt Hamilton Kenny McDonald

Analysis Turnaround Time (in Calendar Days): Routine (28 days)

Site Contact: 14 2 | Date: 1

For Lab Use Only: COC/Order #: 251171

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Sampler(s) Initials	250 mL bottle, pH<2, HNO_3 B, Ca, Li, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Mo, Se, Tl	Field-filter 500 mL bottle, then pH<2, HNO_3 dissolved Fe and Mn	1 L bottle, Cool, 0-6°C TDS, F, Cl, SO_4	Three (six every 10th*) 1 L bottles, pH<2, HNO_3 Ra-226, Ra-228	250 mL Glass bottle, HCL**, pH<2 Hg			Sample Specific Notes:
AD-1	4/29/2025	959	G	GW	8		X			X	X			Routine (28 days)
AD-5	4/29/2025	1104	G	GW	5		X			X	X			TG-32 needed
AD-17	4/29/2025	1107	G	GW	5		X			X	X			
DUPLICATE - BACKGROUND	4/29/2025	1100	G	GW	2		X				X			
EQUIPMENT BLANK - BACKGROUND	4/29/2025	1058	G	GW	2		X				X			
FIELD BLANK - BACKGROUND	4/29/2025	1059	G	GW	1		X							
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____; F= filter in field							4	F4	1	4	2			

** Six 1L Bottles must be collected for Radium for every 10th sample.*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Date/Time:
Matt Hamilton	Eagle	4-30-25 16:00		
Relinquished by:	Company:	Date/Time:	Received by:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: Michael Ohlinger	Date/Time: 5/5/25 11:00

WATER & WASTE SAMPLE RECEIPT FORM

Form SOP-7102 — Sample Receipt Form Rev.10, 01/03/25

Package Type	Delivery Type
(Cooler) Box Bag Envelope	UPS (RedEX) USPS
	Other _____

Plant/Customer Welsh **Total # of Containers RECEIVED in Job:** 25

Opened By MSO

Date/Time 5/5/25 10:00

Were all required temperatures, per BN-water-900, T≤6°C *w/o sample freezing*? Y / N or (N/A)

Initial/Date: _____ on ice / no ice

If No, specify each deviation(s) on back of form. (IR Gun Ser# 240093386, *Expir.* 01/31/26)

Was container in good condition? (Y) / N Comments _____

Was Chain of Custody received? (Y) / N Comments _____

Requested turnaround: 28 days If **RUSH**, who was notified? _____

pH (15 min) Cr^{+6} (pres) (24 hr) NO_2 or NO_3 (48 hr) *ortho*-PO_4 (48 hr) Hg-diss (pres) (48 hr)

Were pH requirements met for required samples, per BN-water-900? (Y) / N or N/A

Initial/Date: MSO 5/5/25

***pH paper*: mfr Lab Rat Supplies, PN LRS-4801 LOT# X000RWDG21, EXPIR DATE 09/30/2026

*** Note changes to pH paper in comments below***

Was Add'l Preservative needed? (Y) N If Yes: By whom & when: MSO 5/5/25 (See Prep Book)

(Dissolved) Is sample filtration requested? Y / (N) Comments _____ (See Prep Book)

Was COC filled out properly? (Y) N Comments _____

Were samples labeled properly? (Y) / N Comments _____

Were correct containers used? (Y) N Comments _____

Was the customer contacted? If Yes: Person Contacted: _____

Lab ID# 251171 Initial & Date & Time : _____

Logged by MSO Comments: _____

(Record Test Count on back of form)

Total # of Containers LISTED on COC: 23

WATER & WASTE SAMPLE RECEIPT FORM (CONT)

Form SOP-7102 Sample Receipt Form Rev.10, 01/03/25

REMINDER: Document the pertinent sample integrity information and deviations in sample receipt (as noted above) in the Sample or Job "Comments" field in the LIMS. **Comments below**:
i.e. Mark "LF" if needs Lab filtered, Temperature or Preservative deviation, Preserved upon arrival , etc.

JOB # : 251171 **Initial/ Date:** MSO 5/5/25 **Peer Review Initial/ Date:** WLG 5/6/25

Login Test Count from COC	LIMS Sample ID (or COC Sample Name)	Comments /Nonconformities	Peer Review Test Count from COC
17	251171-001		17
17	" -002	HNO3 added to 251171-002-R3	17
17	" -003		17
15	" -004		15
15	" -005		15
14	" -006		14

Municipal Solid Waste Laboratory Review Checklist

This data package consists of:

- [x] This signature page, and the laboratory review checklist consisting of Table 1, Reportable Data (which includes the reportable data identified on this page), Table 2, Supporting Data, and Table 3, Exception Reports.
- [x] R1 Field chain-of-custody documentation
- [x] R2 Sample identification cross-reference
- [x] R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - (a) Items specified in NELAC Chapter 5 for reporting results, e.g., Section 5.5.10 in 2003 NELAC Standard
  - (b) Dilution factors
  - (c) Preparation methods
  - (d) Cleanup methods
  - (e) If required for the project, tentatively identified compounds (TICs)
- [NA] R4 Surrogate recovery data including:
  - (a) Calculated recovery (%R)
  - (b) The laboratory's surrogate QC limits
- [x] R5 Test reports/summary forms for blank samples
- [x] R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - (a) LCS spiking amounts
  - (b) Calculated %R for each analyte
  - (c) The laboratory's LCS QC limits
- [x] R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - (a) Samples associated with the MS/MSD clearly identified
  - (b) MS/MSD spiking amounts
  - (c) Concentration of each MS/MSD analyte measured in the parent and spiked samples
  - (d) Calculated %Rs and relative percent differences (RPDs)
  - (e) The laboratory's MS/MSD QC limits
- [x] R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - (a) The amount of analyte measured in the duplicate
  - (b) The calculated RPD
  - (c) The laboratory's QC limits for analytical duplicates
- [x] R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix
- [x] R10 Other problems or anomalies
- [x] The Exception Report for every item for which the result is "No" or "NR" (Not Reviewed)

Release Statement: I am responsible for the release of this laboratory data package. This data package as been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, if applicable: (●) This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Sunita Timsina		Chemist Associate	05/28/2025
Name (printed)	Signature	Official Title	Date

Table 1. Reportable Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Power Station

Reviewer Name: Sunita Timsina

LRC Date: 05/28/2025

Laboratory Job Number: 251171

Prep Batch Number(s): PB25050706

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
R1	O, I	**Chain-of-custody (COC)**		
	I	Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	Yes	
	I	Were all departures from standard conditions described in an exception report?	Yes	
R2	O, I	**Sample and quality control (QC) identification**		
	I	Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	Yes	
	I	Are all laboratory ID numbers cross-referenced to the corresponding QC data?	Yes	
R3	O, I	**Test reports**		
	I	Were all samples prepared and analyzed within holding times?	Yes	
	I	Other than those results < MQL, were all other raw values bracketed by calibration standards?	NA	
	I	Were calculations checked by a peer or supervisor?	Yes	
	I	Were all analyte identifications checked by a peer or supervisor?	Yes	
	I	Were sample quantitation limits reported for all analytes not detected?	Yes	
	I	Were all results for soil and sediment samples reported on a dry weight basis?	NA	
	I	Was % moisture (or solids) reported for all soil and sediment samples?	NA	
	I	If required for the project, TICs reported?	NA	
R4	O	**Surrogate recovery data**		
	I	Were surrogates added prior to extraction?	NA	
	I	Were surrogate percent recoveries in all samples within the laboratory QC limits?	NA	
R5	O, I	**Test reports/summary forms for blank samples**		
	I	Were appropriate type(s) of blanks analyzed?	Yes	
	I	Were blanks analyzed at the appropriate frequency?	Yes	

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
	I	Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	Yes	
	I	Were blank concentrations < MQL?	Yes	
R6	O, I	**Laboratory control samples (LCS):**		
	I	Were all COCs included in the LCS?	Yes	
	I	Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	Yes	
	I	Were LCSs analyzed at the required frequency?	Yes	
	I	Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	Yes	
	I	Was the LCSD RPD within QC limits?	Yes	
R7	O, I	**Matrix spike (MS) and matrix spike duplicate (MSD) data**		
	I	Were the project/method specified analytes included in the MS and MSD?	Yes	
	I	Were MS/MSD analyzed at the appropriate frequency?	Yes	
	I	Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	NA	
	I	Were MS/MSD RPDs within laboratory QC limits?	NA	
R8	O, I	**Analytical duplicate data**		
	I	Were appropriate analytical duplicates analyzed for each matrix?	Yes	
	I	Were analytical duplicates analyzed at the appropriate frequency?	Yes	
	I	Were RPDs or relative standard deviations within the laboratory QC limits?	NO	ER1
R9	O, I	**Method quantitation limits (MQLs):**		
	I	Are the MQLs for each method analyte included in the laboratory data package?	Yes	
	I	Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	Yes	
	I	Are unadjusted MQLs included in the laboratory data package?	Yes	
R10	O, I	**Other problems/anomalies**		
	I	Are all known problems/anomalies/special conditions noted in this LRC and ER?	Yes	
	I	Were all necessary corrective actions performed for the reported data?	Yes	
	I	Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	Yes	

Table 2. Supporting Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Power Station

Reviewer Name: Sunita Timsina

LRC Date: 05/28/2025

Laboratory Job Number: 251171

Prep Batch Number(s): PB25050706

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S1	O, I	**Initial calibration (ICAL)**		
	I	Were response factors and/or relative response factors for each analyte within QC limits?	NA	
	I	Were percent RSDs or correlation coefficient criteria met?	Yes	
	I	Was the number of standards recommended in the method used for all analytes?	Yes	
	I	Were all points generated between the lowest and highest standard used to calculate the curve?	NA	
	I	Are ICAL data available for all instruments used?	Yes	
	I	Has the initial calibration curve been verified using an appropriate second source standard?	Yes	
S2	O, I	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):**		
	I	Was the CCV analyzed at the method-required frequency?	NA	
	I	Were percent differences for each analyte within the method-required QC limits?	NA	
	I	Was the ICAL curve verified for each analyte?	NA	
	I	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	NA	
S3	O	**Mass spectral tuning:**		
	I	Was the appropriate compound for the method used for tuning?	NA	
	I	Were ion abundance data within the method-required QC limits?	NA	
S4	O	**Internal standards (IS):**		
	I	Were IS area counts and retention times within the method-required QC limits?	NA	
S5	O, I	**Raw data (NELAC section 1 appendix A glossary, and section 5.)**		
	I	Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Yes	
	I	Were data associated with manual integrations flagged on the raw data?	NA	

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S6	O	**Dual column confirmation**		
	I	Did dual column confirmation results meet the method-required QC?	NA	
S7	O	**Tentatively identified compounds (TICs):**		
	I	If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?	NA	
S8	I	**Interference Check Sample (ICS) results:**		
	I	Were percent recoveries within method QC limits?	NA	
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**		
	I	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	NA	
S10	O, I	**Method detection limit (MDL) studies**		
	I	Was a MDL study performed for each reported analyte?	Yes	
	I	Is the MDL either adjusted or supported by the analysis of DCSs?	Yes	
S11	O, I	**Proficiency test reports:**		
	I	Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Yes	
S12	O, I	**Standards documentation**		
	I	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Yes	
S13	O, I	**Compound/analyte identification procedures**		
	I	Are the procedures for compound/analyte identification documented?	Yes	
S14	O, I	**Demonstration of analyst competency (DOC)**		
	I	Was DOC conducted consistent with NELAC Chapter 5C?	Yes	
	I	Is documentation of the analyst's competency up-to-date and on file?	Yes	
S15	O, I	**Verification/validation documentation for methods (NELAC Chap 5n 5)**		
	I	Are all the methods used to generate the data documented, verified, and validated, where applicable?	Yes	
S16	O, I	**Laboratory standard operating procedures (SOPs):**		
	I	Are laboratory SOPs current and on file for each method performed?	Yes	

Table 3. Exception Reports.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Power Station

Reviewer Name: Sunita Timsina

LRC Date: 05/28/2025

Laboratory Job Number: 251171

Prep Batch Number(s): PB25050706

Exception Report No.	Description
ER1	The precision between duplicate results was above acceptance limits.

[1] Items identified by the letter "R" must be available as a hard copy or as a .pdf file. Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
[2] O - organic analyses; I - inorganic analyses (including general chemistry constituents, when applicable).
[3] NA - Not applicable; NR - Not reviewed.
[4] Exception Report identification number; an Exception Report should be completed for an item if the result is "No" or "NR."

Municipal Solid Waste Laboratory Review Checklist

This data package consists of:

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- [x] R1 Field chain-of-custody documentation
- [x] R2 Sample identification cross-reference
- [x] R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - (a) Items specified in NELAC Chapter 5 for reporting results, e.g., Section 5.5.10 in 2003 NELAC Standard
  - (b) Dilution factors
  - (c) Preparation methods
  - (d) Cleanup methods
  - (e) If required for the project, tentatively identified compounds (TICs)
- [NA] R4 Surrogate recovery data including:
  - (a) Calculated recovery (%R)
  - (b) The laboratory's surrogate QC limits
- [x] R5 Test reports/summary forms for blank samples
- [x] R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - (a) LCS spiking amounts
  - (b) Calculated %R for each analyte
  - (c) The laboratory's LCS QC limits
- [x] R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - (a) Samples associated with the MS/MSD clearly identified
  - (b) MS/MSD spiking amounts
  - (c) Concentration of each MS/MSD analyte measured in the parent and spiked samples
  - (d) Calculated %Rs and relative percent differences (RPDs)
  - (e) The laboratory's MS/MSD QC limits
- [x] R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - (a) The amount of analyte measured in the duplicate
  - (b) The calculated RPD
  - (c) The laboratory's QC limits for analytical duplicates
- [x] R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix
- [x] R10 Other problems or anomalies
- [x] The Exception Report for every item for which the result is "No" or "NR" (Not Reviewed)

Release Statement: I am responsible for the release of this laboratory data package. This data package as been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, if applicable: (●) This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Sunita Timsina		Chemist Associate	05/28/2025
Name (printed)	Signature	Official Title	Date

Radium Laboratory Review Checklist

Table 1. Reportable Data.

Laboratory Name: American Electric Power - Dolan Chemical Laboratory

Project Name: Welsh Power Station

Reviewer Name: Sunita Timsina

LRC Date: 05/28/2025

Laboratory Job Number: 251171

Prep Batch Number(s): PB25050707

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
R1	O, I	**Chain-of-custody (COC)**		
	I	Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	Yes	
	I	Were all departures from standard conditions described in an exception report?	Yes	
R2	O, I	**Sample and quality control (QC) identification**		
	I	Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	Yes	
	I	Are all laboratory ID numbers cross-referenced to the corresponding QC data?	Yes	
R3	O, I	**Test reports**		
	I	Were all samples prepared and analyzed within holding times?	Yes	
	I	Other than those results < MQL, were all other raw values bracketed by calibration standards?	NA	
	I	Were calculations checked by a peer or supervisor?	Yes	
	I	Were all analyte identifications checked by a peer or supervisor?	Yes	
	I	Were sample quantitation limits reported for all analytes not detected?	Yes	
	I	Were all results for soil and sediment samples reported on a dry weight basis?	NA	
	I	Was % moisture (or solids) reported for all soil and sediment samples?	NA	
	I	If required for the project, TICs reported?	NA	
R4	O	**Surrogate recovery data**		
	I	Were surrogates added prior to extraction?	NA	
	I	Were surrogate percent recoveries in all samples within the laboratory QC limits?	NA	
R5	O, I	**Test reports/summary forms for blank samples**		
	I	Were appropriate type(s) of blanks analyzed?	Yes	
	I	Were blanks analyzed at the appropriate frequency?	Yes	

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
	I	Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	Yes	
	I	Were blank concentrations < MQL?	Yes	
R6	O, I	**Laboratory control samples (LCS):**		
	I	Were all COCs included in the LCS?	Yes	
	I	Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	Yes	
	I	Were LCSs analyzed at the required frequency?	Yes	
	I	Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	Yes	
	I	Was the LCSD RPD within QC limits?	Yes	
R7	O, I	**Matrix spike (MS) and matrix spike duplicate (MSD) data**		
	I	Were the project/method specified analytes included in the MS and MSD?	Yes	
	I	Were MS/MSD analyzed at the appropriate frequency?	Yes	
	I	Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Were MS/MSD RPDs within laboratory QC limits?	NO	ER1
R8	O, I	**Analytical duplicate data**		
	I	Were appropriate analytical duplicates analyzed for each matrix?	Yes	
	I	Were analytical duplicates analyzed at the appropriate frequency?	Yes	
	I	Were RPDs or relative standard deviations within the laboratory QC limits?	NA	
R9	O, I	**Method quantitation limits (MQLs):**		
	I	Are the MQLs for each method analyte included in the laboratory data package?	Yes	
	I	Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	Yes	
	I	Are unadjusted MQLs included in the laboratory data package?	Yes	
R10	O, I	**Other problems/anomalies**		
	I	Are all known problems/anomalies/special conditions noted in this LRC and ER?	Yes	
	I	Were all necessary corrective actions performed for the reported data?	Yes	
	I	Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	Yes	

Table 2. Supporting Data.

Laboratory Name: American Electric Power - Dolan Chemical Laboratory

Project Name: Welsh Power Station

Reviewer Name: Sunita Timsina

LRC Date: 05/28/2025

Laboratory Job Number: 251171

Prep Batch Number(s): PB25050707

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S1	O, I	**Initial calibration (ICAL)**		
	I	Were response factors and/or relative response factors for each analyte within QC limits?	NA	
	I	Were percent RSDs or correlation coefficient criteria met?	Yes	
	I	Was the number of standards recommended in the method used for all analytes?	Yes	
	I	Were all points generated between the lowest and highest standard used to calculate the curve?	NA	
	I	Are ICAL data available for all instruments used?	Yes	
	I	Has the initial calibration curve been verified using an appropriate second source standard?	Yes	
S2	O, I	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):**		
	I	Was the CCV analyzed at the method-required frequency?	NA	
	I	Were percent differences for each analyte within the method-required QC limits?	NA	
	I	Was the ICAL curve verified for each analyte?	NA	
	I	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	NA	
S3	O	**Mass spectral tuning:**		
	I	Was the appropriate compound for the method used for tuning?	NA	
	I	Were ion abundance data within the method-required QC limits?	NA	
S4	O	**Internal standards (IS):**		
	I	Were IS area counts and retention times within the method-required QC limits?	NA	
S5	O, I	**Raw data (NELAC section 1 appendix A glossary, and section 5.)**		
	I	Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Yes	
	I	Were data associated with manual integrations flagged on the raw data?	NA	

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S6	O	**Dual column confirmation**		
	I	Did dual column confirmation results meet the method-required QC?	NA	
S7	O	**Tentatively identified compounds (TICs):**		
	I	If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?	NA	
S8	I	**Interference Check Sample (ICS) results:**		
	I	Were percent recoveries within method QC limits?	NA	
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**		
	I	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	NA	
S10	O, I	**Method detection limit (MDL) studies**		
	I	Was a MDL study performed for each reported analyte?	Yes	
	I	Is the MDL either adjusted or supported by the analysis of DCSs?	Yes	
S11	O, I	**Proficiency test reports:**		
	I	Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Yes	
S12	O, I	**Standards documentation**		
	I	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Yes	
S13	O, I	**Compound/analyte identification procedures**		
	I	Are the procedures for compound/analyte identification documented?	Yes	
S14	O, I	**Demonstration of analyst competency (DOC)**		
	I	Was DOC conducted consistent with NELAC Chapter 5C?	Yes	
	I	Is documentation of the analyst's competency up-to-date and on file?	Yes	
S15	O, I	**Verification/validation documentation for methods (NELAC Chap 5n 5)**		
	I	Are all the methods used to generate the data documented, verified, and validated, where applicable?	Yes	
S16	O, I	**Laboratory standard operating procedures (SOPs):**		
	I	Are laboratory SOPs current and on file for each method performed?	Yes	

Table 3. Exception Reports.

Laboratory Name: American Electric Power - Dolan Chemical Laboratory

Project Name: Welsh Power Station

Reviewer Name: Sunita Timsina

LRC Date: 05/28/2025

Laboratory Job Number: 251171

Prep Batch Number(s): PB25050707

Exception Report No.	Description
ER1	The precision on the matrix spike duplicate was above acceptance limit.

[1] Items identified by the letter "R" must be available as a hard copy or as a .pdf file. Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
[2] O - organic analyses; I - inorganic analyses (including general chemistry constituents, when applicable).
[3] NA - Not applicable; NR - Not reviewed.
[4] Exception Report identification number; an Exception Report should be completed for an item if the result is "No" or "NR."

Municipal Solid Waste Laboratory Review Checklist

This data package consists of:

- [x] This signature page, and the laboratory review checklist consisting of Table 1, Reportable Data (which includes the reportable data identified on this page), Table 2, Supporting Data, and Table 3, Exception Reports.
- [x] R1 Field chain-of-custody documentation
- [x] R2 Sample identification cross-reference
- [x] R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - (a) Items specified in NELAC Chapter 5 for reporting results, e.g., Section 5.5.10 in 2003 NELAC Standard
  - (b) Dilution factors
  - (c) Preparation methods
  - (d) Cleanup methods
  - (e) If required for the project, tentatively identified compounds (TICs)
- [NA] R4 Surrogate recovery data including:
  - (a) Calculated recovery (%R)
  - (b) The laboratory's surrogate QC limits
- [x] R5 Test reports/summary forms for blank samples
- [x] R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - (a) LCS spiking amounts
  - (b) Calculated %R for each analyte
  - (c) The laboratory's LCS QC limits
- [x] R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - (a) Samples associated with the MS/MSD clearly identified
  - (b) MS/MSD spiking amounts
  - (c) Concentration of each MS/MSD analyte measured in the parent and spiked samples
  - (d) Calculated %Rs and relative percent differences (RPDs)
  - (e) The laboratory's MS/MSD QC limits
- [x] R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - (a) The amount of analyte measured in the duplicate
  - (b) The calculated RPD
  - (c) The laboratory's QC limits for analytical duplicates
- [x] R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix
- [x] R10 Other problems or anomalies
- [x] The Exception Report for every item for which the result is "No" or "NR" (Not Reviewed)

Release Statement: I am responsible for the release of this laboratory data package. This data package as been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, if applicable: (●) This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Kelsey Huff		Chemist	05/29/2025
Name (printed)	Signature	Official Title	Date

Mercury Laboratory Review Checklist

Table 1. Reportable Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh

Reviewer Name: Kelsey Huff

LRC Date: 05/29/2025

Laboratory Job Number: 251171

Prep Batch Number(s): PB25050603

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
R1	O, I	**Chain-of-custody (COC)**		
	I	Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	Yes	
	I	Were all departures from standard conditions described in an exception report?	Yes	
R2	O, I	**Sample and quality control (QC) identification**		
	I	Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	Yes	
	I	Are all laboratory ID numbers cross-referenced to the corresponding QC data?	Yes	
R3	O, I	**Test reports**		
	I	Were all samples prepared and analyzed within holding times?	Yes	
	I	Other than those results < MQL, were all other raw values bracketed by calibration standards?	Yes	
	I	Were calculations checked by a peer or supervisor?	Yes	
	I	Were all analyte identifications checked by a peer or supervisor?	Yes	
	I	Were sample quantitation limits reported for all analytes not detected?	Yes	
	I	Were all results for soil and sediment samples reported on a dry weight basis?	NA	
	I	Was % moisture (or solids) reported for all soil and sediment samples?	NA	
	I	If required for the project, TICs reported?	NA	
R4	O	**Surrogate recovery data**		
	I	Were surrogates added prior to extraction?	NA	
	I	Were surrogate percent recoveries in all samples within the laboratory QC limits?	NA	
R5	O, I	**Test reports/summary forms for blank samples**		
	I	Were appropriate type(s) of blanks analyzed?	Yes	
	I	Were blanks analyzed at the appropriate frequency?	Yes	

Mercury Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
	I	Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	Yes	
	I	Were blank concentrations < MQL?	Yes	
R6	O, I	**Laboratory control samples (LCS):**		
	I	Were all COCs included in the LCS?	Yes	
	I	Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	Yes	
	I	Were LCSs analyzed at the required frequency?	Yes	
	I	Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	Yes	
	I	Was the LCSD RPD within QC limits?	Yes	
R7	O, I	**Matrix spike (MS) and matrix spike duplicate (MSD) data**		
	I	Were the project/method specified analytes included in the MS and MSD?	Yes	
	I	Were MS/MSD analyzed at the appropriate frequency?	Yes	
	I	Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Were MS/MSD RPDs within laboratory QC limits?	Yes	
R8	O, I	**Analytical duplicate data**		
	I	Were appropriate analytical duplicates analyzed for each matrix?	NA	
	I	Were analytical duplicates analyzed at the appropriate frequency?	NA	
	I	Were RPDs or relative standard deviations within the laboratory QC limits?	NA	
R9	O, I	**Method quantitation limits (MQLs):**		
	I	Are the MQLs for each method analyte included in the laboratory data package?	Yes	
	I	Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	Yes	
	I	Are unadjusted MQLs included in the laboratory data package?	Yes	
R10	O, I	**Other problems/anomalies**		
	I	Are all known problems/anomalies/special conditions noted in this LRC and ER?	Yes	
	I	Were all necessary corrective actions performed for the reported data?	Yes	
	I	Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	Yes	

Mercury Laboratory Review Checklist

Table 2. Supporting Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh

Reviewer Name: Kelsey Huff

LRC Date: 05/29/2025

Laboratory Job Number: 251171

Prep Batch Number(s): PB25050603

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S1	O, I	**Initial calibration (ICAL)**		
	I	Were response factors and/or relative response factors for each analyte within QC limits?	NA	
	I	Were percent RSDs or correlation coefficient criteria met?	Yes	
	I	Was the number of standards recommended in the method used for all analytes?	Yes	
	I	Were all points generated between the lowest and highest standard used to calculate the curve?	Yes	
	I	Are ICAL data available for all instruments used?	Yes	
	I	Has the initial calibration curve been verified using an appropriate second source standard?	Yes	
S2	O, I	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):**		
	I	Was the CCV analyzed at the method-required frequency?	Yes	
	I	Were percent differences for each analyte within the method-required QC limits?	Yes	
	I	Was the ICAL curve verified for each analyte?	Yes	
	I	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	No	ER1
S3	O	**Mass spectral tuning:**		
	I	Was the appropriate compound for the method used for tuning?	NA	
	I	Were ion abundance data within the method-required QC limits?	NA	
S4	O	**Internal standards (IS):**		
	I	Were IS area counts and retention times within the method-required QC limits?	NA	
S5	O, I	**Raw data (NELAC section 1 appendix A glossary, and section 5.)**		
	I	Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Yes	
	I	Were data associated with manual integrations flagged on the raw data?	NA	

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S6	O	**Dual column confirmation**		
	I	Did dual column confirmation results meet the method-required QC?	NA	
S7	O	**Tentatively identified compounds (TICs):**		
	I	If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?	NA	
S8	I	**Interference Check Sample (ICS) results:**		
	I	Were percent recoveries within method QC limits?	NA	
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**		
	I	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	NA	
S10	O, I	**Method detection limit (MDL) studies**		
	I	Was a MDL study performed for each reported analyte?	Yes	
	I	Is the MDL either adjusted or supported by the analysis of DCSs?	Yes	
S11	O, I	**Proficiency test reports:**		
	I	Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Yes	
S12	O, I	**Standards documentation**		
	I	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Yes	
S13	O, I	**Compound/analyte identification procedures**		
	I	Are the procedures for compound/analyte identification documented?	Yes	
S14	O, I	**Demonstration of analyst competency (DOC)**		
	I	Was DOC conducted consistent with NELAC Chapter 5C?	Yes	
	I	Is documentation of the analyst's competency up-to-date and on file?	Yes	
S15	O, I	**Verification/validation documentation for methods (NELAC Chap 5n 5)**		
	I	Are all the methods used to generate the data documented, verified, and validated, where applicable?	Yes	
S16	O, I	**Laboratory standard operating procedures (SOPs):**		
	I	Are laboratory SOPs current and on file for each method performed?	Yes	

Table 3. Exception Reports.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh

Reviewer Name: Kelsey Huff

LRC Date: 05/29/2025

Laboratory Job Number: 251171

Prep Batch Number(s): PB25050603

Exception Report No.	Description
ER1	CCB acceptance criteria is CCB<MQL.

[1] Items identified by the letter "R" must be available as a hard copy or as a .pdf file. Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
[2] O - organic analyses; I - inorganic analyses (including general chemistry constituents, when applicable).
[3] NA - Not applicable; NR - Not reviewed.
[4] Exception Report identification number; an Exception Report should be completed for an item if the result is "No" or "NR."

Municipal Solid Waste Laboratory Review Checklist

This data package consists of:

- [x] This signature page, and the laboratory review checklist consisting of Table 1, Reportable Data (which includes the reportable data identified on this page), Table 2, Supporting Data, and Table 3, Exception Reports.
- [x] R1 Field chain-of-custody documentation
- [x] R2 Sample identification cross-reference
- [x] R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - (a) Items specified in NELAC Chapter 5 for reporting results, e.g., Section 5.5.10 in 2003 NELAC Standard
  - (b) Dilution factors
  - (c) Preparation methods
  - (d) Cleanup methods
  - (e) If required for the project, tentatively identified compounds (TICs)
- [NA] R4 Surrogate recovery data including:
  - (a) Calculated recovery (%R)
  - (b) The laboratory's surrogate QC limits
- [x] R5 Test reports/summary forms for blank samples
- [x] R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - (a) LCS spiking amounts
  - (b) Calculated %R for each analyte
  - (c) The laboratory's LCS QC limits
- [x] R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - (a) Samples associated with the MS/MSD clearly identified
  - (b) MS/MSD spiking amounts
  - (c) Concentration of each MS/MSD analyte measured in the parent and spiked samples
  - (d) Calculated %Rs and relative percent differences (RPDs)
  - (e) The laboratory's MS/MSD QC limits
- [x] R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - (a) The amount of analyte measured in the duplicate
  - (b) The calculated RPD
  - (c) The laboratory's QC limits for analytical duplicates
- [x] R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix
- [x] R10 Other problems or anomalies
- [x] The Exception Report for every item for which the result is "No" or "NR" (Not Reviewed)

Release Statement: I am responsible for the release of this laboratory data package. This data package as been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, if applicable: (●) This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Elizabeth Hoitink	Elizabeth L Hoitink Digitally signed by Elizabeth L Hoitink Date: 2025.05.29 07:37:49 -04'00'	Chemist	5-29-2025
Name (printed)	Signature	Official Title	Date

ICP-MS Laboratory Review Checklist

Table 1. Reportable Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh CCR

Reviewer Name: Elizabeth Hoitink

LRC Date: 5-29-2025

Laboratory Job Number: 251171

Prep Batch Number(s): PB25050703, QC2505072, QC2505179

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
R1	O, I	**Chain-of-custody (COC)**		
	I	Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	Yes	
	I	Were all departures from standard conditions described in an exception report?	Yes	
R2	O, I	**Sample and quality control (QC) identification**		
	I	Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	Yes	
	I	Are all laboratory ID numbers cross-referenced to the corresponding QC data?	Yes	
R3	O, I	**Test reports**		
	I	Were all samples prepared and analyzed within holding times?	Yes	
	I	Other than those results < MQL, were all other raw values bracketed by calibration standards?	No	ER1
	I	Were calculations checked by a peer or supervisor?	Yes	
	I	Were all analyte identifications checked by a peer or supervisor?	Yes	
	I	Were sample quantitation limits reported for all analytes not detected?	Yes	
	I	Were all results for soil and sediment samples reported on a dry weight basis?	NA	
	I	Was % moisture (or solids) reported for all soil and sediment samples?	NA	
	I	If required for the project, TICs reported?	NA	
R4	O	**Surrogate recovery data**		
	I	Were surrogates added prior to extraction?	NA	
	I	Were surrogate percent recoveries in all samples within the laboratory QC limits?	NA	
R5	O, I	**Test reports/summary forms for blank samples**		
	I	Were appropriate type(s) of blanks analyzed?	Yes	
	I	Were blanks analyzed at the appropriate frequency?	Yes	

ICP-MS Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
	I	Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	Yes	
	I	Were blank concentrations < MQL?	Yes	
R6	O, I	**Laboratory control samples (LCS):**		
	I	Were all COCs included in the LCS?	Yes	
	I	Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	Yes	
	I	Were LCSs analyzed at the required frequency?	Yes	
	I	Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	Yes	
	I	Was the LCSD RPD within QC limits?	Yes	
R7	O, I	**Matrix spike (MS) and matrix spike duplicate (MSD) data**		
	I	Were the project/method specified analytes included in the MS and MSD?	Yes	
	I	Were MS/MSD analyzed at the appropriate frequency?	Yes	
	I	Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Were MS/MSD RPDs within laboratory QC limits?	Yes	
R8	O, I	**Analytical duplicate data**		
	I	Were appropriate analytical duplicates analyzed for each matrix?	Yes	
	I	Were analytical duplicates analyzed at the appropriate frequency?	Yes	
	I	Were RPDs or relative standard deviations within the laboratory QC limits?	Yes	
R9	O, I	**Method quantitation limits (MQLs):**		
	I	Are the MQLs for each method analyte included in the laboratory data package?	Yes	
	I	Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	Yes	
	I	Are unadjusted MQLs included in the laboratory data package?	Yes	
R10	O, I	**Other problems/anomalies**		
	I	Are all known problems/anomalies/special conditions noted in this LRC and ER?	Yes	
	I	Were all necessary corrective actions performed for the reported data?	Yes	
	I	Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	Yes	

Table 2. Supporting Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh CCR

Reviewer Name: Elizabeth Hoitink

LRC Date: 5-29-2025

Laboratory Job Number: 251171

Prep Batch Number(s): PB25050703, QC2505072, QC2505179

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S1	O, I	**Initial calibration (ICAL)**		
	I	Were response factors and/or relative response factors for each analyte within QC limits?	NA	
	I	Were percent RSDs or correlation coefficient criteria met?	Yes	
	I	Was the number of standards recommended in the method used for all analytes?	Yes	
	I	Were all points generated between the lowest and highest standard used to calculate the curve?	Yes	
	I	Are ICAL data available for all instruments used?	Yes	
	I	Has the initial calibration curve been verified using an appropriate second source standard?	Yes	
S2	O, I	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):**		
	I	Was the CCV analyzed at the method-required frequency?	Yes	
	I	Were percent differences for each analyte within the method-required QC limits?	Yes	
	I	Was the ICAL curve verified for each analyte?	Yes	
	I	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	No	ER2
S3	O	**Mass spectral tuning:**		
	I	Was the appropriate compound for the method used for tuning?	Yes	
	I	Were ion abundance data within the method-required QC limits?	Yes	
S4	O	**Internal standards (IS):**		
	I	Were IS area counts and retention times within the method-required QC limits?	Yes	
S5	O, I	**Raw data (NELAC section 1 appendix A glossary, and section 5.)**		
	I	Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Yes	
	I	Were data associated with manual integrations flagged on the raw data?	NA	

ICP-MS Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S6	O	**Dual column confirmation**		
	I	Did dual column confirmation results meet the method-required QC?	NA	
S7	O	**Tentatively identified compounds (TICs):**		
	I	If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?	NA	
S8	I	**Interference Check Sample (ICS) results:**		
	I	Were percent recoveries within method QC limits?	NA	
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**		
	I	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	NA	
S10	O, I	**Method detection limit (MDL) studies**		
	I	Was a MDL study performed for each reported analyte?	Yes	
	I	Is the MDL either adjusted or supported by the analysis of DCSs?	Yes	
S11	O, I	**Proficiency test reports:**		
	I	Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Yes	
S12	O, I	**Standards documentation**		
	I	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Yes	
S13	O, I	**Compound/analyte identification procedures**		
	I	Are the procedures for compound/analyte identification documented?	Yes	
S14	O, I	**Demonstration of analyst competency (DOC)**		
	I	Was DOC conducted consistent with NELAC Chapter 5C?	Yes	
	I	Is documentation of the analyst's competency up-to-date and on file?	Yes	
S15	O, I	**Verification/validation documentation for methods (NELAC Chap 5n 5)**		
	I	Are all the methods used to generate the data documented, verified, and validated, where applicable?	Yes	
S16	O, I	**Laboratory standard operating procedures (SOPs):**		
	I	Are laboratory SOPs current and on file for each method performed?	Yes	

Table 3. Exception Reports.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh CCR

Reviewer Name: Elizabeth Hoitink

LRC Date: 5-29-2025

Laboratory Job Number: 251171

Prep Batch Number(s): PB25050703, QC2505072, QC2505179

Exception Report No.	Description
ER1	Linear Dynamic Range (LDR) study used to determine upper limit of analyte calibration.
ER2	CCB acceptance criteria is CCB<2.2*MDL.

[1] Items identified by the letter "R" must be available as a hard copy or as a .pdf file. Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
[2] O - organic analyses; I - inorganic analyses (including general chemistry constituents, when applicable).
[3] NA - Not applicable; NR - Not reviewed.
[4] Exception Report identification number; an Exception Report should be completed for an item if the result is "No" or "NR."

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 251144 **Customer: Welsh Power Station** **Date Reported: 05/20/2025**

Customer Sample ID: AD-01
Customer Description: TG-32
Lab Number: 251144-001
Preparation:
Date Collected: 04/29/2025 10:59 EDT
Date Received: 05/01/2025 10:00 EDT

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Chloride	4.63	mg/L	2	0.06	0.02		CRJ	05/14/2025 21:30	EPA 300.1 -1997, Rev. 1.0
Fluoride	0.68	mg/L	2	0.06	0.02		CRJ	05/14/2025 21:30	EPA 300.1 -1997, Rev. 1.0
Sulfate	144	mg/L	10	3.0	0.6		CRJ	05/14/2025 17:00	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
TDS, Filterable Residue	300	mg/L	1	50	20		BLB	05/02/2025 09:14	SM 2540C-2015

Customer Sample ID: AD-5
Customer Description: TG-32
Lab Number: 251144-002
Preparation:
Date Collected: 04/29/2025 12:04 EDT
Date Received: 05/01/2025 10:00 EDT

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Chloride	24.3	mg/L	2	0.06	0.02		CRJ	05/14/2025 22:12	EPA 300.1 -1997, Rev. 1.0
Fluoride	0.20	mg/L	2	0.06	0.02		CRJ	05/14/2025 22:12	EPA 300.1 -1997, Rev. 1.0
Sulfate	64.8	mg/L	2	0.6	0.1		CRJ	05/14/2025 22:12	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
TDS, Filterable Residue	220	mg/L	1	50	20		BLB	05/02/2025 09:14	SM 2540C-2015

Customer Sample ID: AD-17
Customer Description: TG-32
Lab Number: 251144-003
Preparation:
Date Collected: 04/29/2025 12:07 EDT
Date Received: 05/01/2025 10:00 EDT

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Chloride	41.4	mg/L	5	0.15	0.05		CRJ	05/14/2025 16:19	EPA 300.1 -1997, Rev. 1.0
Fluoride	0.11	mg/L	5	0.15	0.05	J1	CRJ	05/14/2025 16:19	EPA 300.1 -1997, Rev. 1.0
Sulfate	993	mg/L	50	15	3		CRJ	05/14/2025 15:58	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
TDS, Filterable Residue	1600	mg/L	2	100	40		BLB	05/02/2025 09:20	SM 2540C-2015

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 251144 **Customer: Welsh Power Station** **Date Reported: 05/20/2025**

Customer Sample ID: Duplicate - Background
Customer Description: TG-32
Lab Number: 251144-004
Preparation:
Date Collected: 04/29/2025 12:00 EDT
Date Received: 05/01/2025 10:00 EDT

Ion Chromatography

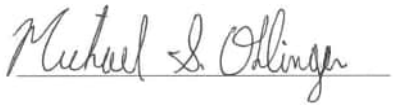
Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Chloride	4.65	mg/L	2	0.06	0.02		CRJ	05/14/2025 22:32	EPA 300.1 -1997, Rev. 1.0
Fluoride	0.68	mg/L	2	0.06	0.02		CRJ	05/14/2025 22:32	EPA 300.1 -1997, Rev. 1.0
Sulfate	144	mg/L	10	3.0	0.6		CRJ	05/14/2025 17:42	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
TDS, Filterable Residue	320	mg/L	1	50	20		BLB	05/02/2025 09:20	SM 2540C-2015

Report Verification

This report and the above data have been confirmed by the following analyst.



Michael Ohlinger, Chemist
Email: msohlinger@aep.com
Phone: 614-836-4184
Audinet: 8-210-4184

THIS TEST REPORT RELATES ONLY TO THE ITEMS TESTED AND SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT WRITTEN APPROVAL OF THE LABORATORY. ALL TEST RESULTS MEET ALL OF THE REQUIREMENTS OF THE ACCREDITING AUTHORITY, UNLESS OTHERWISE NOTED. ALL TIMES LISTED ARE IN THE EASTERN TIME ZONE.

Data Qualifer Legend

J1 - Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.

Chain of Custody Record

Program: Coal Combustion Residuals (CCR)

Dolan Chemical Laboratory (DCL)
4001 Bixby Road
Groveport, Ohio 43125

Contacts: Michael Ohlinger (614-836-4184)

Project Name: Welsh Background
Contact Name: Pryce Warren
Contact Phone: (325) 310-6668
Sampler(s): Matt Hamilton Kenny McDonald

Analysis Turnaround Time (in Calendar Days): Routine (28 days)

Site Contact:

Date:

For Lab Use Only: COC/Order #: 251144

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Sampler(s) Initials	250 mL bottle, pH<2, HNO_3: B, Ca, Li, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Mo, Se, TL	Field-filter 500 mL bottle, then pH<2, HNO_3: dissolved Fe and Mn	1 L bottle, Cool, 0-6°C: TDS, F, Cl, SO_4	Three (six every 10th*) 1 L bottles, pH<2, HNO_3: Ra-226, Ra-228	40 mL Glass vial or 125 mL PTFE lined bottle, HCL**, pH<2: Hg			Sample Specific Notes:
AD-1	4/29/2025	959	G	GW	1				X					TG-32 needed
AD-5	4/29/2025	1104	G	GW	1				X					
AD-17	4/29/2025	1107	G	GW	1				X					
DUPLICATE - BACKGROUND	4/29/2025	1100	G	GW	1				X					
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____; F= filter in field							4	F4	1	4				

* *Six 1L Bottles must be collected for Radium for every 10th sample.*

Special Instructions/QC Requirements & Comments:

Relinquished by	Company	Date/Time	Received by	Date/Time
Matt Hamilton	Eagle	4-30-25 1600		
Relinquished by	Company	Date/Time	Received by	Date/Time
Relinquished by	Company	Date/Time	Received in Laboratory by:	Date/Time
				05/01/25 10:00A

WATER & WASTE SAMPLE RECEIPT FORM

Form SOP-7102 Sample Receipt Form Rev.10, 01/03/25

Package Type	Delivery Type
(Cooler) Box Bag Envelope	(UPS) FedEX USPS Other _____

Plant/Customer Welsh-Badgley **Total # of Containers RECEIVED in Job:** 4

Opened By Misgna

Date/Time 05/01/25 10:00 Am

Were all required temperatures, per BN-water-900, T≤6°C *w/o sample freezing*? (Y) / N or N/A

Initial/Date: MGH 05/01/25 on ice / no ice

If No, specify each deviation(s) on back of form. (IR Gun Ser# 240093386, *Expir.* 05/20/2025

Was container in good condition? (Y) / N Comments _____

Was Chain of Custody received? (Y) / N Comments _____

Requested turnaround: 28 days If **RUSH**, who was notified? _____

pH (15 min) Cr^{+6} (pres) (24 hr) NO_2 or NO_3 (48 hr) *ortho*-PO_4 (48 hr) Hg-diss (pres) (48 hr)

Were pH requirements met for required samples, per BN-water-900? (Y) / N or N/A

Initial/Date: MGH 05/01/25

pH paper: mfr Lab Rat Supplies, PN RS-4801, LOT# X000RWDG21, EXPIR DATE 05/31/2026

*** Note changes to pH paper in comments below*

Was Add'l Preservative needed? Y / (N) If Yes: By whom & when: _____ (See Prep Book)

(Dissolved) Is sample filtration requested? Y (N) Comments _____ (See Prep Book)

Was COC filled out properly? (Y) / N Comments _____

Were samples labeled properly? (Y) / N Comments _____

Were correct containers used? (Y) / N Comments _____

Was the customer contacted? If Yes: Person Contacted: _____

Lab ID# 251144 Initial & Date & Time : _____

Logged by MGH Comments: _____

(Record Test Count on back of form)

Total # of Containers LISTED on COC: 4

WATER & WASTE SAMPLE RECEIPT FORM (CONT)

REMINDER: Document the pertinent sample integrity information and deviations in sample receipt (as noted above) in the Sample or Job "Comments" field in the LIMS. **Comments below**:
i.e. Mark "LF" if needs Lab filtered, Temperature or Preservative deviation, Preserved upon arrival , etc.

JOB # : 251144 **Initial/ Date:** MHC 05/01/25 **Peer Review Initial/ Date:** WCW 05/01/25

Login Test Count from COC	LIMS Sample ID (or COC Sample Name)	Comments /Nonconformities	Peer Review Test Count from COC
4	251144-001		4
4	251144-002		4
4	251144-003		4
4	251144-004		4

Municipal Solid Waste Laboratory Review Checklist

This data package consists of:

- [x] This signature page, and the laboratory review checklist consisting of Table 1, Reportable Data (which includes the reportable data identified on this page), Table 2, Supporting Data, and Table 3, Exception Reports.
- [x] R1 Field chain-of-custody documentation
- [x] R2 Sample identification cross-reference
- [x] R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - (a) Items specified in NELAC Chapter 5 for reporting results, e.g., Section 5.5.10 in 2003 NELAC Standard
  - (b) Dilution factors
  - (c) Preparation methods
  - (d) Cleanup methods
  - (e) If required for the project, tentatively identified compounds (TICs)
- [x] R4 Surrogate recovery data including:
  - (a) Calculated recovery (%R)
  - (b) The laboratory's surrogate QC limits
- [x] R5 Test reports/summary forms for blank samples
- [x] R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - (a) LCS spiking amounts
  - (b) Calculated %R for each analyte
  - (c) The laboratory's LCS QC limits
- [x] R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - (a) Samples associated with the MS/MSD clearly identified
  - (b) MS/MSD spiking amounts
  - (c) Concentration of each MS/MSD analyte measured in the parent and spiked samples
  - (d) Calculated %Rs and relative percent differences (RPDs)
  - (e) The laboratory's MS/MSD QC limits
- [x] R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - (a) The amount of analyte measured in the duplicate
  - (b) The calculated RPD
  - (c) The laboratory's QC limits for analytical duplicates
- [x] R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix
- [x] R10 Other problems or anomalies
- [x] The Exception Report for every item for which the result is "No" or "NR" (Not Reviewed)

Release Statement: I am responsible for the release of this laboratory data package. This data package as been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, if applicable: (●) This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Tim Arnold		Principle Chemist	5/16/25
Name (printed)	Signature	Official Title	Date

Ion Chromatography Laboratory Review Checklist

Table 1. Reportable Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Background

Reviewer Name: Tim Arnold

LRC Date: 5/16/25

Laboratory Job Number: 251144

Prep Batch Number(s): QC2505110

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
R1	O, I	**Chain-of-custody (COC)**		
	I	Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	Yes	
	I	Were all departures from standard conditions described in an exception report?	Yes	
R2	O, I	**Sample and quality control (QC) identification**		
	I	Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	Yes	
	I	Are all laboratory ID numbers cross-referenced to the corresponding QC data?	Yes	
R3	O, I	**Test reports**		
	I	Were all samples prepared and analyzed within holding times?	Yes	
	I	Other than those results < MQL, were all other raw values bracketed by calibration standards?	Yes	
	I	Were calculations checked by a peer or supervisor?	Yes	
	I	Were all analyte identifications checked by a peer or supervisor?	Yes	
	I	Were sample quantitation limits reported for all analytes not detected?	Yes	
	I	Were all results for soil and sediment samples reported on a dry weight basis?	NA	
	I	Was % moisture (or solids) reported for all soil and sediment samples?	NA	
	I	If required for the project, TICs reported?	NA	
R4	O	**Surrogate recovery data**		
	I	Were surrogates added prior to extraction?	Yes	
	I	Were surrogate percent recoveries in all samples within the laboratory QC limits?	Yes	
R5	O, I	**Test reports/summary forms for blank samples**		
	I	Were appropriate type(s) of blanks analyzed?	Yes	
	I	Were blanks analyzed at the appropriate frequency?	Yes	

Ion Chromatography Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
	I	Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	Yes	
	I	Were blank concentrations < MQL?	Yes	
R6	O, I	**Laboratory control samples (LCS):**		
	I	Were all COCs included in the LCS?	Yes	
	I	Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	Yes	
	I	Were LCSs analyzed at the required frequency?	Yes	
	I	Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	Yes	
	I	Was the LCSD RPD within QC limits?	Yes	
R7	O, I	**Matrix spike (MS) and matrix spike duplicate (MSD) data**		
	I	Were the project/method specified analytes included in the MS and MSD?	Yes	
	I	Were MS/MSD analyzed at the appropriate frequency?	Yes	
	I	Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Were MS/MSD RPDs within laboratory QC limits?	Yes	
R8	O, I	**Analytical duplicate data**		
	I	Were appropriate analytical duplicates analyzed for each matrix?	Yes	
	I	Were analytical duplicates analyzed at the appropriate frequency?	Yes	
	I	Were RPDs or relative standard deviations within the laboratory QC limits?	Yes	
R9	O, I	**Method quantitation limits (MQLs):**		
	I	Are the MQLs for each method analyte included in the laboratory data package?	Yes	
	I	Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	Yes	
	I	Are unadjusted MQLs included in the laboratory data package?	Yes	
R10	O, I	**Other problems/anomalies**		
	I	Are all known problems/anomalies/special conditions noted in this LRC and ER?	Yes	
	I	Were all necessary corrective actions performed for the reported data?	Yes	
	I	Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	Yes	

Table 2. Supporting Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Background

Reviewer Name: Tim Arnold

LRC Date: 5/16/25

Laboratory Job Number: 251144

Prep Batch Number(s): QC2505110

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S1	O, I	**Initial calibration (ICAL)**		
	I	Were response factors and/or relative response factors for each analyte within QC limits?	NA	
	I	Were percent RSDs or correlation coefficient criteria met?	Yes	
	I	Was the number of standards recommended in the method used for all analytes?	Yes	
	I	Were all points generated between the lowest and highest standard used to calculate the curve?	Yes	
	I	Are ICAL data available for all instruments used?	Yes	
	I	Has the initial calibration curve been verified using an appropriate second source standard?	Yes	
S2	O, I	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):**		
	I	Was the CCV analyzed at the method-required frequency?	Yes	
	I	Were percent differences for each analyte within the method-required QC limits?	Yes	
	I	Was the ICAL curve verified for each analyte?	Yes	
	I	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	No	ER1
S3	O	**Mass spectral tuning:**		
	I	Was the appropriate compound for the method used for tuning?	NA	
	I	Were ion abundance data within the method-required QC limits?	NA	
S4	O	**Internal standards (IS):**		
	I	Were IS area counts and retention times within the method-required QC limits?	NA	
S5	O, I	**Raw data (NELAC section 1 appendix A glossary, and section 5.)**		
	I	Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Yes	
	I	Were data associated with manual integrations flagged on the raw data?	NA	

Ion Chromatography Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S6	O	**Dual column confirmation**		
	I	Did dual column confirmation results meet the method-required QC?	NA	
S7	O	**Tentatively identified compounds (TICs):**		
	I	If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?	NA	
S8	I	**Interference Check Sample (ICS) results:**		
	I	Were percent recoveries within method QC limits?	NA	
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**		
	I	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	NA	
S10	O, I	**Method detection limit (MDL) studies**		
	I	Was a MDL study performed for each reported analyte?	Yes	
	I	Is the MDL either adjusted or supported by the analysis of DCSs?	Yes	
S11	O, I	**Proficiency test reports:**		
	I	Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Yes	
S12	O, I	**Standards documentation**		
	I	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Yes	
S13	O, I	**Compound/analyte identification procedures**		
	I	Are the procedures for compound/analyte identification documented?	Yes	
S14	O, I	**Demonstration of analyst competency (DOC)**		
	I	Was DOC conducted consistent with NELAC Chapter 5C?	Yes	
	I	Is documentation of the analyst's competency up-to-date and on file?	Yes	
S15	O, I	**Verification/validation documentation for methods (NELAC Chap 5n 5)**		
	I	Are all the methods used to generate the data documented, verified, and validated, where applicable?	Yes	
S16	O, I	**Laboratory standard operating procedures (SOPs):**		
	I	Are laboratory SOPs current and on file for each method performed?	Yes	

Table 3. Exception Reports.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Background

Reviewer Name: Tim Arnold

LRC Date: 5/16/25

Laboratory Job Number: 251144

Prep Batch Number(s): QC2505110

Exception Report No.	Description
ER1	CCB acceptance criteria is CCB<MQL.

[1] Items identified by the letter "R" must be available as a hard copy or as a .pdf file. Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

[2] O - organic analyses; I - inorganic analyses (including general chemistry constituents, when applicable).

[3] NA - Not applicable; NR - Not reviewed.

[4] Exception Report identification number; an Exception Report should be completed for an item if the result is "No" or "NR."

Municipal Solid Waste Laboratory Review Checklist

This data package consists of:

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- [x] R1 Field chain-of-custody documentation
- [x] R2 Sample identification cross-reference
- [x] R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - (a) Items specified in NELAC Chapter 5 for reporting results, e.g., Section 5.5.10 in 2003 NELAC Standard
  - (b) Dilution factors
  - (c) Preparation methods
  - (d) Cleanup methods
  - (e) If required for the project, tentatively identified compounds (TICs)
- [NA] R4 Surrogate recovery data including:
  - (a) Calculated recovery (%R)
  - (b) The laboratory's surrogate QC limits
- [x] R5 Test reports/summary forms for blank samples
- [x] R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - (a) LCS spiking amounts
  - (b) Calculated %R for each analyte
  - (c) The laboratory's LCS QC limits
- [x] R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - (a) Samples associated with the MS/MSD clearly identified
  - (b) MS/MSD spiking amounts
  - (c) Concentration of each MS/MSD analyte measured in the parent and spiked samples
  - (d) Calculated %Rs and relative percent differences (RPDs)
  - (e) The laboratory's MS/MSD QC limits
- [x] R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - (a) The amount of analyte measured in the duplicate
  - (b) The calculated RPD
  - (c) The laboratory's QC limits for analytical duplicates
- [x] R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix
- [x] R10 Other problems or anomalies
- [x] The Exception Report for every item for which the result is "No" or "NR" (Not Reviewed)

Release Statement: I am responsible for the release of this laboratory data package. This data package as been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, if applicable: (●) This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Sandra Williams	Sandra D. Williams	Chemist	5/19/2025
Name (printed)	Signature	Official Title	Date

Table 1. Reportable Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Power Station

Reviewer Name: Sandra Williams

LRC Date: 5/19/2025

Laboratory Job Number: 251144

Prep Batch Number(s): QC2505046

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
R1	O, I	**Chain-of-custody (COC)**		
	I	Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	Yes	
	I	Were all departures from standard conditions described in an exception report?	NA	
R2	O, I	**Sample and quality control (QC) identification**		
	I	Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	Yes	
	I	Are all laboratory ID numbers cross-referenced to the corresponding QC data?	Yes	
R3	O, I	**Test reports**		
	I	Were all samples prepared and analyzed within holding times?	Yes	
	I	Other than those results < MQL, were all other raw values bracketed by calibration standards?	NA	
	I	Were calculations checked by a peer or supervisor?	Yes	
	I	Were all analyte identifications checked by a peer or supervisor?	Yes	
	I	Were sample quantitation limits reported for all analytes not detected?	Yes	
	I	Were all results for soil and sediment samples reported on a dry weight basis?	NA	
	I	Was % moisture (or solids) reported for all soil and sediment samples?	NA	
	I	If required for the project, TICs reported?	NA	
R4	O	**Surrogate recovery data**		
	I	Were surrogates added prior to extraction?	NA	
	I	Were surrogate percent recoveries in all samples within the laboratory QC limits?	NA	
R5	O, I	**Test reports/summary forms for blank samples**		
	I	Were appropriate type(s) of blanks analyzed?	Yes	
	I	Were blanks analyzed at the appropriate frequency?	Yes	

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
	I	Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	Yes	
	I	Were blank concentrations < MQL?	Yes	
R6	O, I	**Laboratory control samples (LCS):**		
	I	Were all COCs included in the LCS?	Yes	
	I	Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	Yes	
	I	Were LCSs analyzed at the required frequency?	Yes	
	I	Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	Yes	
	I	Was the LCSD RPD within QC limits?	Yes	
R7	O, I	**Matrix spike (MS) and matrix spike duplicate (MSD) data**		
	I	Were the project/method specified analytes included in the MS and MSD?	NA	
	I	Were MS/MSD analyzed at the appropriate frequency?	NA	
	I	Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	NA	
	I	Were MS/MSD RPDs within laboratory QC limits?	NA	
R8	O, I	**Analytical duplicate data**		
	I	Were appropriate analytical duplicates analyzed for each matrix?	Yes	
	I	Were analytical duplicates analyzed at the appropriate frequency?	Yes	
	I	Were RPDs or relative standard deviations within the laboratory QC limits?	Yes	
R9	O, I	**Method quantitation limits (MQLs):**		
	I	Are the MQLs for each method analyte included in the laboratory data package?	Yes	
	I	Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	Yes	
	I	Are unadjusted MQLs included in the laboratory data package?	Yes	
R10	O, I	**Other problems/anomalies**		
	I	Are all known problems/anomalies/special conditions noted in this LRC and ER?	Yes	
	I	Were all necessary corrective actions performed for the reported data?	Yes	
	I	Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	Yes	

Table 2. Supporting Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Power Station

Reviewer Name: Sandra Williams

LRC Date: 5/19/2025

Laboratory Job Number: 251144

Prep Batch Number(s): QC2505046

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S1	O, I	**Initial calibration (ICAL)**		
	I	Were response factors and/or relative response factors for each analyte within QC limits?	NA	
	I	Were percent RSDs or correlation coefficient criteria met?	NA	
	I	Was the number of standards recommended in the method used for all analytes?	NA	
	I	Were all points generated between the lowest and highest standard used to calculate the curve?	NA	
	I	Are ICAL data available for all instruments used?	NA	
	I	Has the initial calibration curve been verified using an appropriate second source standard?	NA	
S2	O, I	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):**		
	I	Was the CCV analyzed at the method-required frequency?	NA	
	I	Were percent differences for each analyte within the method-required QC limits?	NA	
	I	Was the ICAL curve verified for each analyte?	NA	
	I	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	NA	
S3	O	**Mass spectral tuning:**		
	I	Was the appropriate compound for the method used for tuning?	NA	
	I	Were ion abundance data within the method-required QC limits?	NA	
S4	O	**Internal standards (IS):**		
	I	Were IS area counts and retention times within the method-required QC limits?	NA	
S5	O, I	**Raw data (NELAC section 1 appendix A glossary, and section 5.)**		
	I	Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Yes	
	I	Were data associated with manual integrations flagged on the raw data?	NA	

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S6	O	**Dual column confirmation**		
	I	Did dual column confirmation results meet the method-required QC?	NA	
S7	O	**Tentatively identified compounds (TICs):**		
	I	If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?	NA	
S8	I	**Interference Check Sample (ICS) results:**		
	I	Were percent recoveries within method QC limits?	NA	
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**		
	I	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	NA	
S10	O, I	**Method detection limit (MDL) studies**		
	I	Was a MDL study performed for each reported analyte?	Yes	
	I	Is the MDL either adjusted or supported by the analysis of DCSs?	Yes	
S11	O, I	**Proficiency test reports:**		
	I	Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Yes	
S12	O, I	**Standards documentation**		
	I	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Yes	
S13	O, I	**Compound/analyte identification procedures**		
	I	Are the procedures for compound/analyte identification documented?	Yes	
S14	O, I	**Demonstration of analyst competency (DOC)**		
	I	Was DOC conducted consistent with NELAC Chapter 5C?	Yes	
	I	Is documentation of the analyst's competency up-to-date and on file?	Yes	
S15	O, I	**Verification/validation documentation for methods (NELAC Chap 5n 5)**		
	I	Are all the methods used to generate the data documented, verified, and validated, where applicable?	Yes	
S16	O, I	**Laboratory standard operating procedures (SOPs):**		
	I	Are laboratory SOPs current and on file for each method performed?	Yes	

Table 3. Exception Reports.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Power Station

Reviewer Name: Sandra Williams

LRC Date: 5/19/2025

Laboratory Job Number: 251144

Prep Batch Number(s): QC2505046

Exception Report No.	Description

[1] Items identified by the letter "R" must be available as a hard copy or as a .pdf file. Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

[2] O - organic analyses; I - inorganic analyses (including general chemistry constituents, when applicable).

[3] NA - Not applicable; NR - Not reviewed.

[4] Exception Report identification number; an Exception Report should be completed for an item if the result is "No" or "NR."

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 251170 **Customer: Welsh Power Station** **Date Reported: 05/30/2025**

Customer Sample ID: AD-8
Lab Number: 251170-001
Date Collected: 04/28/2025 10:04 EDT

Customer Description:
Preparation:
Date Received: 05/05/2025 11:00 EDT

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	0.011	µg/L	1	0.100	0.008	J1	GES	05/08/2025 17:00	EPA 200.8-1994, Rev. 5.4
Arsenic	0.21	µg/L	1	0.10	0.03		GES	05/08/2025 17:00	EPA 200.8-1994, Rev. 5.4
Barium	24.8	µg/L	1	0.20	0.05		GES	05/08/2025 17:00	EPA 200.8-1994, Rev. 5.4
Beryllium	0.008	µg/L	1	0.050	0.007	J1	GES	05/08/2025 17:00	EPA 200.8-1994, Rev. 5.4
Boron	1.05	mg/L	1	0.050	0.007		GES	05/08/2025 17:00	EPA 200.8-1994, Rev. 5.4
Cadmium	0.023	µg/L	1	0.020	0.004		GES	05/08/2025 17:00	EPA 200.8-1994, Rev. 5.4
Calcium	18.4	mg/L	1	0.05	0.02	M1	GES	05/08/2025 17:00	EPA 200.8-1994, Rev. 5.4
Chromium	0.24	µg/L	1	0.30	0.07	J1	GES	05/08/2025 17:00	EPA 200.8-1994, Rev. 5.4
Cobalt	3.47	µg/L	1	0.020	0.005		GES	05/08/2025 17:00	EPA 200.8-1994, Rev. 5.4
Lead	<0.05	µg/L	1	0.20	0.05	U1	GES	05/08/2025 17:00	EPA 200.8-1994, Rev. 5.4
Lithium	0.0676	mg/L	1	0.00030	0.00006		GES	05/08/2025 17:00	EPA 200.8-1994, Rev. 5.4
Mercury	<2	ng/L	1	5	2	U1	RLP	05/06/2025 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	05/08/2025 17:00	EPA 200.8-1994, Rev. 5.4
Selenium	<0.04	µg/L	1	0.50	0.04	U1	GES	05/08/2025 17:00	EPA 200.8-1994, Rev. 5.4
Thallium	0.10	µg/L	1	0.20	0.02	J1	GES	05/08/2025 17:00	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method
Radium-226	0.87	pCi/L	0.28	0.58		WCG	05/09/2025 16:44	SW-846 9315-1986, Rev. 0
Carrier Recovery	85.6	%						
Radium-228	-0.49	pCi/L	0.12	0.44	P3	TTP	05/22/2025 19:08	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	89.1	%						

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 251170 **Customer: Welsh Power Station** **Date Reported: 05/30/2025**

Customer Sample ID: AD-9
Lab Number: 251170-002
Date Collected: 04/28/2025 11:20 EDT

Customer Description:
Preparation:
Date Received: 05/05/2025 11:00 EDT

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	0.015	µg/L	1	0.100	0.008	J1	GES	05/08/2025 17:16	EPA 200.8-1994, Rev. 5.4
Arsenic	0.67	µg/L	1	0.10	0.03		GES	05/08/2025 17:16	EPA 200.8-1994, Rev. 5.4
Barium	52.1	µg/L	1	0.20	0.05		GES	05/08/2025 17:16	EPA 200.8-1994, Rev. 5.4
Beryllium	0.974	µg/L	1	0.050	0.007		GES	05/08/2025 17:16	EPA 200.8-1994, Rev. 5.4
Boron	0.077	mg/L	1	0.050	0.007		GES	05/08/2025 17:16	EPA 200.8-1994, Rev. 5.4
Cadmium	0.267	µg/L	1	0.020	0.004		GES	05/08/2025 17:16	EPA 200.8-1994, Rev. 5.4
Calcium	136	mg/L	1	0.05	0.02		GES	05/08/2025 17:16	EPA 200.8-1994, Rev. 5.4
Chromium	0.54	µg/L	1	0.30	0.07		GES	05/08/2025 17:16	EPA 200.8-1994, Rev. 5.4
Cobalt	18.9	µg/L	1	0.020	0.005		GES	05/08/2025 17:16	EPA 200.8-1994, Rev. 5.4
Lead	0.08	µg/L	1	0.20	0.05	J1	GES	05/08/2025 17:16	EPA 200.8-1994, Rev. 5.4
Lithium	0.572	mg/L	1	0.00030	0.00006		GES	05/08/2025 17:16	EPA 200.8-1994, Rev. 5.4
Mercury	<2	ng/L	1	5	2	U1	RLP	05/06/2025 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	05/08/2025 17:16	EPA 200.8-1994, Rev. 5.4
Selenium	0.62	µg/L	1	0.50	0.04		GES	05/08/2025 17:16	EPA 200.8-1994, Rev. 5.4
Thallium	0.23	µg/L	1	0.20	0.02		GES	05/08/2025 17:16	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method
Radium-226	2.73	pCi/L	0.45	0.64		WCG	05/09/2025 16:44	SW-846 9315-1986, Rev. 0
Carrier Recovery	96.6	%						
Radium-228	0.89	pCi/L	0.12	0.39		TTP	05/22/2025 19:08	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	85.7	%						

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 251170 **Customer: Welsh Power Station** **Date Reported: 05/30/2025**

Customer Sample ID: AD-15
Lab Number: 251170-003
Date Collected: 04/28/2025 10:30 EDT

Customer Description:
Preparation:
Date Received: 05/05/2025 11:00 EDT

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	0.021	µg/L	1	0.100	0.008	J1	GES	05/08/2025 17:22	EPA 200.8-1994, Rev. 5.4
Arsenic	2.13	µg/L	1	0.10	0.03		GES	05/08/2025 17:22	EPA 200.8-1994, Rev. 5.4
Barium	78.3	µg/L	1	0.20	0.05		GES	05/08/2025 17:22	EPA 200.8-1994, Rev. 5.4
Beryllium	0.134	µg/L	1	0.050	0.007		GES	05/08/2025 17:22	EPA 200.8-1994, Rev. 5.4
Boron	0.108	mg/L	1	0.050	0.007		GES	05/08/2025 17:22	EPA 200.8-1994, Rev. 5.4
Cadmium	0.010	µg/L	1	0.020	0.004	J1	GES	05/08/2025 17:22	EPA 200.8-1994, Rev. 5.4
Calcium	3.49	mg/L	1	0.05	0.02		GES	05/08/2025 17:22	EPA 200.8-1994, Rev. 5.4
Chromium	0.36	µg/L	1	0.30	0.07		GES	05/08/2025 17:22	EPA 200.8-1994, Rev. 5.4
Cobalt	3.15	µg/L	1	0.020	0.005		GES	05/08/2025 17:22	EPA 200.8-1994, Rev. 5.4
Lead	0.12	µg/L	1	0.20	0.05	J1	GES	05/08/2025 17:22	EPA 200.8-1994, Rev. 5.4
Lithium	0.00242	mg/L	1	0.00030	0.00006		GES	05/08/2025 17:22	EPA 200.8-1994, Rev. 5.4
Mercury	<2	ng/L	1	5	2	U1	RLP	05/06/2025 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	05/08/2025 17:22	EPA 200.8-1994, Rev. 5.4
Selenium	0.40	µg/L	1	0.50	0.04	J1	GES	05/08/2025 17:22	EPA 200.8-1994, Rev. 5.4
Thallium	0.06	µg/L	1	0.20	0.02	J1	GES	05/08/2025 17:22	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method
Radium-226	1.46	pCi/L	0.32	0.45		WCG	05/09/2025 16:44	SW-846 9315-1986, Rev. 0
Carrier Recovery	100	%						
Radium-228	0.11	pCi/L	0.15	0.53		TTP	05/22/2025 19:08	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	86.9	%						

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 251170 **Customer: Welsh Power Station** **Date Reported: 05/30/2025**

Customer Sample ID: DUPLICATE - PBAP
Customer Description:
Lab Number: 251170-004
Preparation:
Date Collected: 04/28/2025 12:00 EDT
Date Received: 05/05/2025 11:00 EDT

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	0.010	µg/L	1	0.100	0.008	J1	GES	05/08/2025 17:27	EPA 200.8-1994, Rev. 5.4
Arsenic	0.21	µg/L	1	0.10	0.03		GES	05/08/2025 17:27	EPA 200.8-1994, Rev. 5.4
Barium	24.8	µg/L	1	0.20	0.05		GES	05/08/2025 17:27	EPA 200.8-1994, Rev. 5.4
Beryllium	0.008	µg/L	1	0.050	0.007	J1	GES	05/08/2025 17:27	EPA 200.8-1994, Rev. 5.4
Boron	1.02	mg/L	1	0.050	0.007		GES	05/08/2025 17:27	EPA 200.8-1994, Rev. 5.4
Cadmium	0.024	µg/L	1	0.020	0.004		GES	05/08/2025 17:27	EPA 200.8-1994, Rev. 5.4
Calcium	18.3	mg/L	1	0.05	0.02		GES	05/08/2025 17:27	EPA 200.8-1994, Rev. 5.4
Chromium	0.34	µg/L	1	0.30	0.07		GES	05/08/2025 17:27	EPA 200.8-1994, Rev. 5.4
Cobalt	3.58	µg/L	1	0.020	0.005		GES	05/08/2025 17:27	EPA 200.8-1994, Rev. 5.4
Lead	<0.05	µg/L	1	0.20	0.05	U1	GES	05/08/2025 17:27	EPA 200.8-1994, Rev. 5.4
Lithium	0.0655	mg/L	1	0.00030	0.00006		GES	05/08/2025 17:27	EPA 200.8-1994, Rev. 5.4
Mercury	<2	ng/L	1	5	2	U1	RLP	05/06/2025 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	05/08/2025 17:27	EPA 200.8-1994, Rev. 5.4
Selenium	<0.04	µg/L	1	0.50	0.04	U1	GES	05/08/2025 17:27	EPA 200.8-1994, Rev. 5.4
Thallium	0.11	µg/L	1	0.20	0.02	J1	GES	05/08/2025 17:27	EPA 200.8-1994, Rev. 5.4

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 251170 **Customer: Welsh Power Station** **Date Reported: 05/30/2025**

Customer Sample ID: EQUIPMENT BLANK - PBAP
Customer Description:
Lab Number: 251170-005
Preparation:
Date Collected: 04/28/2025 10:53 EDT
Date Received: 05/05/2025 11:00 EDT

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	0.070	µg/L	1	0.100	0.008	J1	GES	05/08/2025 17:33	EPA 200.8-1994, Rev. 5.4
Arsenic	<0.03	µg/L	1	0.10	0.03	U1	GES	05/08/2025 17:33	EPA 200.8-1994, Rev. 5.4
Barium	<0.05	µg/L	1	0.20	0.05	U1	GES	05/08/2025 17:33	EPA 200.8-1994, Rev. 5.4
Beryllium	<0.007	µg/L	1	0.050	0.007	U1	GES	05/08/2025 17:33	EPA 200.8-1994, Rev. 5.4
Boron	0.008	mg/L	1	0.050	0.007	J1	GES	05/08/2025 17:33	EPA 200.8-1994, Rev. 5.4
Cadmium	<0.004	µg/L	1	0.020	0.004	U1	GES	05/08/2025 17:33	EPA 200.8-1994, Rev. 5.4
Calcium	0.02	mg/L	1	0.05	0.02	J1	GES	05/08/2025 17:33	EPA 200.8-1994, Rev. 5.4
Chromium	0.26	µg/L	1	0.30	0.07	J1	GES	05/08/2025 17:33	EPA 200.8-1994, Rev. 5.4
Cobalt	<0.005	µg/L	1	0.020	0.005	U1	GES	05/08/2025 17:33	EPA 200.8-1994, Rev. 5.4
Lead	<0.05	µg/L	1	0.20	0.05	U1	GES	05/08/2025 17:33	EPA 200.8-1994, Rev. 5.4
Lithium	0.00012	mg/L	1	0.00030	0.00006	J1	GES	05/08/2025 17:33	EPA 200.8-1994, Rev. 5.4
Mercury	<2	ng/L	1	5	2	U1	RLP	05/06/2025 00:00	EPA 245.7-2005, Rev. 2.0
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	05/08/2025 17:33	EPA 200.8-1994, Rev. 5.4
Selenium	<0.04	µg/L	1	0.50	0.04	U1	GES	05/08/2025 17:33	EPA 200.8-1994, Rev. 5.4
Thallium	<0.02	µg/L	1	0.20	0.02	U1	GES	05/08/2025 17:33	EPA 200.8-1994, Rev. 5.4

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 251170 **Customer: Welsh Power Station** **Date Reported: 05/30/2025**

Customer Sample ID: FIELD BLANK - PBAP
Lab Number: 251170-006
Date Collected: 04/28/2025 10:57 EDT

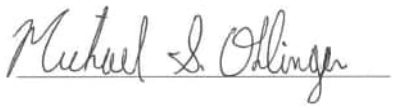
Customer Description:
Preparation:
Date Received: 05/05/2025 11:00 EDT

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	0.072	µg/L	1	0.100	0.008	J1	GES	05/08/2025 17:38	EPA 200.8-1994, Rev. 5.4
Arsenic	<0.03	µg/L	1	0.10	0.03	U1	GES	05/08/2025 17:38	EPA 200.8-1994, Rev. 5.4
Barium	<0.05	µg/L	1	0.20	0.05	U1	GES	05/08/2025 17:38	EPA 200.8-1994, Rev. 5.4
Beryllium	<0.007	µg/L	1	0.050	0.007	U1	GES	05/08/2025 17:38	EPA 200.8-1994, Rev. 5.4
Boron	<0.007	mg/L	1	0.050	0.007	U1	GES	05/08/2025 17:38	EPA 200.8-1994, Rev. 5.4
Cadmium	<0.004	µg/L	1	0.020	0.004	U1	GES	05/08/2025 17:38	EPA 200.8-1994, Rev. 5.4
Calcium	0.04	mg/L	1	0.05	0.02	J1	GES	05/08/2025 17:38	EPA 200.8-1994, Rev. 5.4
Chromium	0.28	µg/L	1	0.30	0.07	J1	GES	05/08/2025 17:38	EPA 200.8-1994, Rev. 5.4
Cobalt	<0.005	µg/L	1	0.020	0.005	U1	GES	05/08/2025 17:38	EPA 200.8-1994, Rev. 5.4
Lead	<0.05	µg/L	1	0.20	0.05	U1	GES	05/08/2025 17:38	EPA 200.8-1994, Rev. 5.4
Lithium	0.00010	mg/L	1	0.00030	0.00006	J1	GES	05/08/2025 17:38	EPA 200.8-1994, Rev. 5.4
Molybdenum	<0.1	µg/L	1	0.5	0.1	U1	GES	05/08/2025 17:38	EPA 200.8-1994, Rev. 5.4
Selenium	<0.04	µg/L	1	0.50	0.04	U1	GES	05/08/2025 17:38	EPA 200.8-1994, Rev. 5.4
Thallium	<0.02	µg/L	1	0.20	0.02	U1	GES	05/08/2025 17:38	EPA 200.8-1994, Rev. 5.4

Report Verification

This report and the above data have been confirmed by the following analyst.



Michael Ohlinger, Chemist
Email: msohlinger@aep.com
Phone: 614-836-4184
Audinet: 8-210-4184

THIS TEST REPORT RELATES ONLY TO THE ITEMS TESTED AND SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT WRITTEN APPROVAL OF THE LABORATORY. ALL TEST RESULTS MEET ALL OF THE REQUIREMENTS OF THE ACCREDITING AUTHORITY, UNLESS OTHERWISE NOTED. ALL TIMES LISTED ARE IN THE EASTERN TIME ZONE.

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 251170 **Customer: Welsh Power Station** **Date Reported: 05/30/2025**

Data Qualifer Legend

J1 - Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.
M1 - The associated matrix spike (MS) or matrix spike duplicate (MSD) recovery was outside acceptance limits.
U1 - Not detected at or below method detection limit (MDL).
P3 - The precision on the matrix spike duplicate (MSD) was above acceptance limits.

Chain of Custody Record

Program: Coal Combustion Residuals (CCR)

Dolan Chemical Laboratory (DCL)
4001 Bixby Road
Groveport, Ohio 43125

Contacts: **Michael Ohlinger (614-836-4184)**

Project Name: Welsh PBAP
Contact Name: Pryce Warren
Contact Phone: (325) 310-6668
Sampler(s): Matt Hamilton Kenny McDonald

Analysis Turnaround Time (in Calendar Days): Routine (28 days)

Site Contact: 14 2 Date: 1

For Lab Use Only: COC/Order #: 251170

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Sampler(s) Initials	250 mL bottle, pH<2, HNO_3 — B, Ca, Li, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Mo, Se, Tl	Field-filter 500 mL bottle, then pH<2, HNO_3 — dissolved Fe and Mn	1 L bottle, Cool, 0-6°C — TDS, F, Cl, SO_4	Three (six every 10th*) 1 L bottles, pH<2, HNO_3 — Ra-226, Ra-228	250 mL Glass bottle, HCL**, pH<2 — Hg			Sample Specific Notes:
AD-8	4/28/2025	904	G	GW	8		X			X	X			TG-32 needed
AD-9	4/28/2025	1020	G	GW	5		X			X	X			
AD-15	4/28/2025	930	G	GW	5		X			X	X			
DUPLICATE - PBAP	4/28/2025	1100	G	GW	2		X				X			
EQUIPMENT BLANK - PBAP	4/28/2025	953	G	GW	2		X				X			
FIELD BLANK - PBAP	4/28/2025	957	G	GW	1		X							
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____; F= filter in field							4	F4	1	4	2			

* *Six 1L Bottles must be collected for Radium for every 10th sample.*

Special Instructions/QC Requirements & Comments:

Relinquished by	Company	Date/Time	Received by	Date/Time
[signature]	Eagle	4-30-25 1600		
Relinquished by:	Company:	Date/Time:	Received by:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Date/Time: 5/5/25 11:00

WATER & WASTE SAMPLE RECEIPT FORM

Form SOP-7102 Sample Receipt Form Rev.10, 01/03/25

Package Type	Delivery Type
(Cooler) Box Bag Envelope	UPS (FedEx) USPS
	Other _____

Plant/Customer Welsh **Total # of Containers RECEIVED in Job:** 23

Opened By MSD

Date/Time 5/5/25 11:00

Were all required temperatures, per BN-water-900, T≤6°C *w/o sample freezing*? Y / N or (N/A)

Initial/Date: _____ on ice / no ice

If No, specify each deviation(s) on back of form. (IR Gun Ser# 240093386, *Expir.* 01/31/26)

Was container in good condition? (Y) / N Comments _____

Was Chain of Custody received? (Y) / N Comments _____

Requested turnaround: 28 days If **RUSH**, who was notified? _____

pH (15 min) Cr^{+6} (pres) (24 hr) NO_2 or NO_3 (48 hr) *ortho*-PO_4 (48 hr) Hg-diss (pres) (48 hr)

Were pH requirements met for required samples, per BN-water-900? (Y) / N or N/A

Initial/Date: MSD 05/05/25

pH paper: mfr Lab Rat Supplies, PN LRS-4801 LOT# X000RWDG21 EXPIR DATE 09/30/2026

***** Note changes to pH paper in comments below***

Was Add'l Preservative needed? Y / (N) If Yes: By whom & when: _____ (See Prep Book)

(Dissolved) Is sample filtration requested? Y / (N) Comments _____ (See Prep Book)

Was COC filled out properly? (Y) / N Comments _____

Were samples labeled properly? (Y) / N Comments _____

Were correct containers used? (Y) / N Comments _____

Was the customer contacted? If Yes: Person Contacted: _____

Lab ID# 251170 Initial & Date & Time : _____

Logged by MSD Comments: _____

(Record Test Count on back of form)

Total # of Containers LISTED on COC: 23

WATER & WASTE SAMPLE RECEIPT FORM (CONT)

Form SOP-7102 Sample Receipt Form Rev. 10, 01/03/25

REMINDER: Document the pertinent sample integrity information and deviations in sample receipt (as noted above) in the Sample or Job "Comments" field in the LIMS. **Comments below**:
i.e. Mark "LF" if needs Lab filtered, Temperature or Preservative deviation, Preserved upon arrival , etc.

JOB # : 251170 **Initial/ Date:** MBO 5/5/25 **Peer Review Initial/ Date:** WCL 5/6/25

Login Test Count from COC	LIMS Sample ID (or COC Sample Name)	Comments /Nonconformities	Peer Review Test Count from COC
17	251170-001		17
17	" -002		17
17	" -003		17
15	" -004		15
15	" -005		15
14	" -006		14

Municipal Solid Waste Laboratory Review Checklist

This data package consists of:

- [x] This signature page, and the laboratory review checklist consisting of Table 1, Reportable Data (which includes the reportable data identified on this page), Table 2, Supporting Data, and Table 3, Exception Reports.
- [x] R1 Field chain-of-custody documentation
- [x] R2 Sample identification cross-reference
- [x] R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - (a) Items specified in NELAC Chapter 5 for reporting results, e.g., Section 5.5.10 in 2003 NELAC Standard
  - (b) Dilution factors
  - (c) Preparation methods
  - (d) Cleanup methods
  - (e) If required for the project, tentatively identified compounds (TICs)
- [NA] R4 Surrogate recovery data including:
  - (a) Calculated recovery (%R)
  - (b) The laboratory's surrogate QC limits
- [x] R5 Test reports/summary forms for blank samples
- [x] R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - (a) LCS spiking amounts
  - (b) Calculated %R for each analyte
  - (c) The laboratory's LCS QC limits
- [x] R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - (a) Samples associated with the MS/MSD clearly identified
  - (b) MS/MSD spiking amounts
  - (c) Concentration of each MS/MSD analyte measured in the parent and spiked samples
  - (d) Calculated %Rs and relative percent differences (RPDs)
  - (e) The laboratory's MS/MSD QC limits
- [x] R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - (a) The amount of analyte measured in the duplicate
  - (b) The calculated RPD
  - (c) The laboratory's QC limits for analytical duplicates
- [x] R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix
- [x] R10 Other problems or anomalies
- [x] The Exception Report for every item for which the result is "No" or "NR" (Not Reviewed)

Release Statement: I am responsible for the release of this laboratory data package. This data package as been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, if applicable: (●) This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Sunita Timsina		Chemist Associate	05/28/2025
Name (printed)	Signature	Official Title	Date

Table 1. Reportable Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Power Station

Reviewer Name: Sunita Timsina

LRC Date: 05/28/2025

Laboratory Job Number: 251170

Prep Batch Number(s): PB25050706

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
R1	O, I	**Chain-of-custody (COC)**		
	I	Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	Yes	
	I	Were all departures from standard conditions described in an exception report?	Yes	
R2	O, I	**Sample and quality control (QC) identification**		
	I	Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	Yes	
	I	Are all laboratory ID numbers cross-referenced to the corresponding QC data?	Yes	
R3	O, I	**Test reports**		
	I	Were all samples prepared and analyzed within holding times?	Yes	
	I	Other than those results < MQL, were all other raw values bracketed by calibration standards?	NA	
	I	Were calculations checked by a peer or supervisor?	Yes	
	I	Were all analyte identifications checked by a peer or supervisor?	Yes	
	I	Were sample quantitation limits reported for all analytes not detected?	Yes	
	I	Were all results for soil and sediment samples reported on a dry weight basis?	NA	
	I	Was % moisture (or solids) reported for all soil and sediment samples?	NA	
	I	If required for the project, TICs reported?	NA	
R4	O	**Surrogate recovery data**		
	I	Were surrogates added prior to extraction?	NA	
	I	Were surrogate percent recoveries in all samples within the laboratory QC limits?	NA	
R5	O, I	**Test reports/summary forms for blank samples**		
	I	Were appropriate type(s) of blanks analyzed?	Yes	
	I	Were blanks analyzed at the appropriate frequency?	Yes	

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
	I	Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	Yes	
	I	Were blank concentrations < MQL?	Yes	
R6	O, I	**Laboratory control samples (LCS):**		
	I	Were all COCs included in the LCS?	Yes	
	I	Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	Yes	
	I	Were LCSs analyzed at the required frequency?	Yes	
	I	Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	Yes	
	I	Was the LCSD RPD within QC limits?	Yes	
R7	O, I	**Matrix spike (MS) and matrix spike duplicate (MSD) data**		
	I	Were the project/method specified analytes included in the MS and MSD?	Yes	
	I	Were MS/MSD analyzed at the appropriate frequency?	Yes	
	I	Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	NA	
	I	Were MS/MSD RPDs within laboratory QC limits?	NA	
R8	O, I	**Analytical duplicate data**		
	I	Were appropriate analytical duplicates analyzed for each matrix?	Yes	
	I	Were analytical duplicates analyzed at the appropriate frequency?	Yes	
	I	Were RPDs or relative standard deviations within the laboratory QC limits?	NO	ER1
R9	O, I	**Method quantitation limits (MQLs):**		
	I	Are the MQLs for each method analyte included in the laboratory data package?	Yes	
	I	Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	Yes	
	I	Are unadjusted MQLs included in the laboratory data package?	Yes	
R10	O, I	**Other problems/anomalies**		
	I	Are all known problems/anomalies/special conditions noted in this LRC and ER?	Yes	
	I	Were all necessary corrective actions performed for the reported data?	Yes	
	I	Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	Yes	

Table 2. Supporting Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Power Station

Reviewer Name: Sunita Timsina

LRC Date: 05/28/2025

Laboratory Job Number: 251170

Prep Batch Number(s): PB25050706

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S1	O, I	**Initial calibration (ICAL)**		
	I	Were response factors and/or relative response factors for each analyte within QC limits?	NA	
	I	Were percent RSDs or correlation coefficient criteria met?	Yes	
	I	Was the number of standards recommended in the method used for all analytes?	Yes	
	I	Were all points generated between the lowest and highest standard used to calculate the curve?	NA	
	I	Are ICAL data available for all instruments used?	Yes	
	I	Has the initial calibration curve been verified using an appropriate second source standard?	Yes	
S2	O, I	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):**		
	I	Was the CCV analyzed at the method-required frequency?	NA	
	I	Were percent differences for each analyte within the method-required QC limits?	NA	
	I	Was the ICAL curve verified for each analyte?	NA	
	I	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	NA	
S3	O	**Mass spectral tuning:**		
	I	Was the appropriate compound for the method used for tuning?	NA	
	I	Were ion abundance data within the method-required QC limits?	NA	
S4	O	**Internal standards (IS):**		
	I	Were IS area counts and retention times within the method-required QC limits?	NA	
S5	O, I	**Raw data (NELAC section 1 appendix A glossary, and section 5.)**		
	I	Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Yes	
	I	Were data associated with manual integrations flagged on the raw data?	NA	

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S6	O	**Dual column confirmation**		
	I	Did dual column confirmation results meet the method-required QC?	NA	
S7	O	**Tentatively identified compounds (TICs):**		
	I	If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?	NA	
S8	I	**Interference Check Sample (ICS) results:**		
	I	Were percent recoveries within method QC limits?	NA	
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**		
	I	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	NA	
S10	O, I	**Method detection limit (MDL) studies**		
	I	Was a MDL study performed for each reported analyte?	Yes	
	I	Is the MDL either adjusted or supported by the analysis of DCSs?	Yes	
S11	O, I	**Proficiency test reports:**		
	I	Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Yes	
S12	O, I	**Standards documentation**		
	I	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Yes	
S13	O, I	**Compound/analyte identification procedures**		
	I	Are the procedures for compound/analyte identification documented?	Yes	
S14	O, I	**Demonstration of analyst competency (DOC)**		
	I	Was DOC conducted consistent with NELAC Chapter 5C?	Yes	
	I	Is documentation of the analyst's competency up-to-date and on file?	Yes	
S15	O, I	**Verification/validation documentation for methods (NELAC Chap 5n 5)**		
	I	Are all the methods used to generate the data documented, verified, and validated, where applicable?	Yes	
S16	O, I	**Laboratory standard operating procedures (SOPs):**		
	I	Are laboratory SOPs current and on file for each method performed?	Yes	

Table 3. Exception Reports.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Power Station

Reviewer Name: Sunita Timsina

LRC Date: 05/28/2025

Laboratory Job Number: 251170

Prep Batch Number(s): PB25050706

Exception Report No.	Description
ER1	The precision between duplicate results was above acceptance limits.

[1] Items identified by the letter "R" must be available as a hard copy or as a .pdf file. Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
[2] O - organic analyses; I - inorganic analyses (including general chemistry constituents, when applicable).
[3] NA - Not applicable; NR - Not reviewed.
[4] Exception Report identification number; an Exception Report should be completed for an item if the result is "No" or "NR."

Municipal Solid Waste Laboratory Review Checklist

This data package consists of:

- [x] This signature page, and the laboratory review checklist consisting of Table 1, Reportable Data (which includes the reportable data identified on this page), Table 2, Supporting Data, and Table 3, Exception Reports.
- [x] R1 Field chain-of-custody documentation
- [x] R2 Sample identification cross-reference
- [x] R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - (a) Items specified in NELAC Chapter 5 for reporting results, e.g., Section 5.5.10 in 2003 NELAC Standard
  - (b) Dilution factors
  - (c) Preparation methods
  - (d) Cleanup methods
  - (e) If required for the project, tentatively identified compounds (TICs)
- [NA] R4 Surrogate recovery data including:
  - (a) Calculated recovery (%R)
  - (b) The laboratory's surrogate QC limits
- [x] R5 Test reports/summary forms for blank samples
- [x] R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - (a) LCS spiking amounts
  - (b) Calculated %R for each analyte
  - (c) The laboratory's LCS QC limits
- [x] R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - (a) Samples associated with the MS/MSD clearly identified
  - (b) MS/MSD spiking amounts
  - (c) Concentration of each MS/MSD analyte measured in the parent and spiked samples
  - (d) Calculated %Rs and relative percent differences (RPDs)
  - (e) The laboratory's MS/MSD QC limits
- [x] R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - (a) The amount of analyte measured in the duplicate
  - (b) The calculated RPD
  - (c) The laboratory's QC limits for analytical duplicates
- [x] R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix
- [x] R10 Other problems or anomalies
- [x] The Exception Report for every item for which the result is "No" or "NR" (Not Reviewed)

Release Statement: I am responsible for the release of this laboratory data package. This data package as been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, if applicable: (●) This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Sunita Timsina		Chemist Associate	05/28/2025
Name (printed)	Signature	Official Title	Date

Radium Laboratory Review Checklist

Table 1. Reportable Data.

Laboratory Name: American Electric Power - Dolan Chemical Laboratory

Project Name: Welsh Power Station

Reviewer Name: Sunita Timsina

LRC Date: 05/28/2025

Laboratory Job Number: 251170

Prep Batch Number(s): PB25050707

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
R1	O, I	**Chain-of-custody (COC)**		
	I	Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	Yes	
	I	Were all departures from standard conditions described in an exception report?	Yes	
R2	O, I	**Sample and quality control (QC) identification**		
	I	Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	Yes	
	I	Are all laboratory ID numbers cross-referenced to the corresponding QC data?	Yes	
R3	O, I	**Test reports**		
	I	Were all samples prepared and analyzed within holding times?	Yes	
	I	Other than those results < MQL, were all other raw values bracketed by calibration standards?	NA	
	I	Were calculations checked by a peer or supervisor?	Yes	
	I	Were all analyte identifications checked by a peer or supervisor?	Yes	
	I	Were sample quantitation limits reported for all analytes not detected?	Yes	
	I	Were all results for soil and sediment samples reported on a dry weight basis?	NA	
	I	Was % moisture (or solids) reported for all soil and sediment samples?	NA	
	I	If required for the project, TICs reported?	NA	
R4	O	**Surrogate recovery data**		
	I	Were surrogates added prior to extraction?	NA	
	I	Were surrogate percent recoveries in all samples within the laboratory QC limits?	NA	
R5	O, I	**Test reports/summary forms for blank samples**		
	I	Were appropriate type(s) of blanks analyzed?	Yes	
	I	Were blanks analyzed at the appropriate frequency?	Yes	

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
	I	Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	Yes	
	I	Were blank concentrations < MQL?	Yes	
R6	O, I	**Laboratory control samples (LCS):**		
	I	Were all COCs included in the LCS?	Yes	
	I	Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	Yes	
	I	Were LCSs analyzed at the required frequency?	Yes	
	I	Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	Yes	
	I	Was the LCSD RPD within QC limits?	Yes	
R7	O, I	**Matrix spike (MS) and matrix spike duplicate (MSD) data**		
	I	Were the project/method specified analytes included in the MS and MSD?	Yes	
	I	Were MS/MSD analyzed at the appropriate frequency?	Yes	
	I	Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Were MS/MSD RPDs within laboratory QC limits?	NO	ER1
R8	O, I	**Analytical duplicate data**		
	I	Were appropriate analytical duplicates analyzed for each matrix?	Yes	
	I	Were analytical duplicates analyzed at the appropriate frequency?	Yes	
	I	Were RPDs or relative standard deviations within the laboratory QC limits?	NA	
R9	O, I	**Method quantitation limits (MQLs):**		
	I	Are the MQLs for each method analyte included in the laboratory data package?	Yes	
	I	Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	Yes	
	I	Are unadjusted MQLs included in the laboratory data package?	Yes	
R10	O, I	**Other problems/anomalies**		
	I	Are all known problems/anomalies/special conditions noted in this LRC and ER?	Yes	
	I	Were all necessary corrective actions performed for the reported data?	Yes	
	I	Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	Yes	

Table 2. Supporting Data.

Laboratory Name: American Electric Power - Dolan Chemical Laboratory

Project Name: Welsh Power Station

Reviewer Name: Sunita Timsina

LRC Date: 05/28/2025

Laboratory Job Number: 251170

Prep Batch Number(s): PB25050707

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S1	O, I	**Initial calibration (ICAL)**		
	I	Were response factors and/or relative response factors for each analyte within QC limits?	NA	
	I	Were percent RSDs or correlation coefficient criteria met?	Yes	
	I	Was the number of standards recommended in the method used for all analytes?	Yes	
	I	Were all points generated between the lowest and highest standard used to calculate the curve?	NA	
	I	Are ICAL data available for all instruments used?	Yes	
	I	Has the initial calibration curve been verified using an appropriate second source standard?	Yes	
S2	O, I	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):**		
	I	Was the CCV analyzed at the method-required frequency?	NA	
	I	Were percent differences for each analyte within the method-required QC limits?	NA	
	I	Was the ICAL curve verified for each analyte?	NA	
	I	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	NA	
S3	O	**Mass spectral tuning:**		
	I	Was the appropriate compound for the method used for tuning?	NA	
	I	Were ion abundance data within the method-required QC limits?	NA	
S4	O	**Internal standards (IS):**		
	I	Were IS area counts and retention times within the method-required QC limits?	NA	
S5	O, I	**Raw data (NELAC section 1 appendix A glossary, and section 5.)**		
	I	Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Yes	
	I	Were data associated with manual integrations flagged on the raw data?	NA	

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S6	O	**Dual column confirmation**		
	I	Did dual column confirmation results meet the method-required QC?	NA	
S7	O	**Tentatively identified compounds (TICs):**		
	I	If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?	NA	
S8	I	**Interference Check Sample (ICS) results:**		
	I	Were percent recoveries within method QC limits?	NA	
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**		
	I	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	NA	
S10	O, I	**Method detection limit (MDL) studies**		
	I	Was a MDL study performed for each reported analyte?	Yes	
	I	Is the MDL either adjusted or supported by the analysis of DCSs?	Yes	
S11	O, I	**Proficiency test reports:**		
	I	Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Yes	
S12	O, I	**Standards documentation**		
	I	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Yes	
S13	O, I	**Compound/analyte identification procedures**		
	I	Are the procedures for compound/analyte identification documented?	Yes	
S14	O, I	**Demonstration of analyst competency (DOC)**		
	I	Was DOC conducted consistent with NELAC Chapter 5C?	Yes	
	I	Is documentation of the analyst's competency up-to-date and on file?	Yes	
S15	O, I	**Verification/validation documentation for methods (NELAC Chap 5n 5)**		
	I	Are all the methods used to generate the data documented, verified, and validated, where applicable?	Yes	
S16	O, I	**Laboratory standard operating procedures (SOPs):**		
	I	Are laboratory SOPs current and on file for each method performed?	Yes	

Table 3. Exception Reports.

Laboratory Name: American Electric Power - Dolan Chemical Laboratory

Project Name: Welsh Power Station

Reviewer Name: Sunita Timsina

LRC Date: 05/28/2025

Laboratory Job Number: 251170

Prep Batch Number(s): PB25050707

Exception Report No.	Description
ER1	The precision on the matrix spike duplicate was above acceptance limit.

[1] Items identified by the letter "R" must be available as a hard copy or as a .pdf file. Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
[2] O - organic analyses; I - inorganic analyses (including general chemistry constituents, when applicable).
[3] NA - Not applicable; NR - Not reviewed.
[4] Exception Report identification number; an Exception Report should be completed for an item if the result is "No" or "NR."

Municipal Solid Waste Laboratory Review Checklist

This data package consists of:

- [x] This signature page, and the laboratory review checklist consisting of Table 1, Reportable Data (which includes the reportable data identified on this page), Table 2, Supporting Data, and Table 3, Exception Reports.
- [x] R1 Field chain-of-custody documentation
- [x] R2 Sample identification cross-reference
- [x] R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - (a) Items specified in NELAC Chapter 5 for reporting results, e.g., Section 5.5.10 in 2003 NELAC Standard
  - (b) Dilution factors
  - (c) Preparation methods
  - (d) Cleanup methods
  - (e) If required for the project, tentatively identified compounds (TICs)
- [NA] R4 Surrogate recovery data including:
  - (a) Calculated recovery (%R)
  - (b) The laboratory's surrogate QC limits
- [x] R5 Test reports/summary forms for blank samples
- [x] R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - (a) LCS spiking amounts
  - (b) Calculated %R for each analyte
  - (c) The laboratory's LCS QC limits
- [x] R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - (a) Samples associated with the MS/MSD clearly identified
  - (b) MS/MSD spiking amounts
  - (c) Concentration of each MS/MSD analyte measured in the parent and spiked samples
  - (d) Calculated %Rs and relative percent differences (RPDs)
  - (e) The laboratory's MS/MSD QC limits
- [x] R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - (a) The amount of analyte measured in the duplicate
  - (b) The calculated RPD
  - (c) The laboratory's QC limits for analytical duplicates
- [x] R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix
- [x] R10 Other problems or anomalies
- [x] The Exception Report for every item for which the result is "No" or "NR" (Not Reviewed)

Release Statement: I am responsible for the release of this laboratory data package. This data package as been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, if applicable: (●) This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Kelsey Huff		Chemist	05/29/2025
Name (printed)	Signature	Official Title	Date

Mercury Laboratory Review Checklist

Table 1. Reportable Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh

Reviewer Name: Kelsey Huff

LRC Date: 05/29/2025

Laboratory Job Number: 251170

Prep Batch Number(s): PB25050603

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
R1	O, I	**Chain-of-custody (COC)**		
	I	Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	Yes	
	I	Were all departures from standard conditions described in an exception report?	Yes	
R2	O, I	**Sample and quality control (QC) identification**		
	I	Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	Yes	
	I	Are all laboratory ID numbers cross-referenced to the corresponding QC data?	Yes	
R3	O, I	**Test reports**		
	I	Were all samples prepared and analyzed within holding times?	Yes	
	I	Other than those results < MQL, were all other raw values bracketed by calibration standards?	Yes	
	I	Were calculations checked by a peer or supervisor?	Yes	
	I	Were all analyte identifications checked by a peer or supervisor?	Yes	
	I	Were sample quantitation limits reported for all analytes not detected?	Yes	
	I	Were all results for soil and sediment samples reported on a dry weight basis?	NA	
	I	Was % moisture (or solids) reported for all soil and sediment samples?	NA	
	I	If required for the project, TICs reported?	NA	
R4	O	**Surrogate recovery data**		
	I	Were surrogates added prior to extraction?	NA	
	I	Were surrogate percent recoveries in all samples within the laboratory QC limits?	NA	
R5	O, I	**Test reports/summary forms for blank samples**		
	I	Were appropriate type(s) of blanks analyzed?	Yes	
	I	Were blanks analyzed at the appropriate frequency?	Yes	

Mercury Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
	I	Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	Yes	
	I	Were blank concentrations < MQL?	Yes	
R6	O, I	**Laboratory control samples (LCS):**		
	I	Were all COCs included in the LCS?	Yes	
	I	Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	Yes	
	I	Were LCSs analyzed at the required frequency?	Yes	
	I	Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	Yes	
	I	Was the LCSD RPD within QC limits?	Yes	
R7	O, I	**Matrix spike (MS) and matrix spike duplicate (MSD) data**		
	I	Were the project/method specified analytes included in the MS and MSD?	Yes	
	I	Were MS/MSD analyzed at the appropriate frequency?	Yes	
	I	Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Were MS/MSD RPDs within laboratory QC limits?	Yes	
R8	O, I	**Analytical duplicate data**		
	I	Were appropriate analytical duplicates analyzed for each matrix?	NA	
	I	Were analytical duplicates analyzed at the appropriate frequency?	NA	
	I	Were RPDs or relative standard deviations within the laboratory QC limits?	NA	
R9	O, I	**Method quantitation limits (MQLs):**		
	I	Are the MQLs for each method analyte included in the laboratory data package?	Yes	
	I	Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	Yes	
	I	Are unadjusted MQLs included in the laboratory data package?	Yes	
R10	O, I	**Other problems/anomalies**		
	I	Are all known problems/anomalies/special conditions noted in this LRC and ER?	Yes	
	I	Were all necessary corrective actions performed for the reported data?	Yes	
	I	Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	Yes	

Table 2. Supporting Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh

Reviewer Name: Kelsey Huff

LRC Date: 05/29/2025

Laboratory Job Number: 251170

Prep Batch Number(s): PB25050603

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S1	O, I	**Initial calibration (ICAL)**		
	I	Were response factors and/or relative response factors for each analyte within QC limits?	NA	
	I	Were percent RSDs or correlation coefficient criteria met?	Yes	
	I	Was the number of standards recommended in the method used for all analytes?	Yes	
	I	Were all points generated between the lowest and highest standard used to calculate the curve?	Yes	
	I	Are ICAL data available for all instruments used?	Yes	
	I	Has the initial calibration curve been verified using an appropriate second source standard?	Yes	
S2	O, I	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):**		
	I	Was the CCV analyzed at the method-required frequency?	Yes	
	I	Were percent differences for each analyte within the method-required QC limits?	Yes	
	I	Was the ICAL curve verified for each analyte?	Yes	
	I	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	No	ER1
S3	O	**Mass spectral tuning:**		
	I	Was the appropriate compound for the method used for tuning?	NA	
	I	Were ion abundance data within the method-required QC limits?	NA	
S4	O	**Internal standards (IS):**		
	I	Were IS area counts and retention times within the method-required QC limits?	NA	
S5	O, I	**Raw data (NELAC section 1 appendix A glossary, and section 5.)**		
	I	Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Yes	
	I	Were data associated with manual integrations flagged on the raw data?	NA	

Mercury Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S6	O	**Dual column confirmation**		
	I	Did dual column confirmation results meet the method-required QC?	NA	
S7	O	**Tentatively identified compounds (TICs):**		
	I	If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?	NA	
S8	I	**Interference Check Sample (ICS) results:**		
	I	Were percent recoveries within method QC limits?	NA	
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**		
	I	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	NA	
S10	O, I	**Method detection limit (MDL) studies**		
	I	Was a MDL study performed for each reported analyte?	Yes	
	I	Is the MDL either adjusted or supported by the analysis of DCSs?	Yes	
S11	O, I	**Proficiency test reports:**		
	I	Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Yes	
S12	O, I	**Standards documentation**		
	I	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Yes	
S13	O, I	**Compound/analyte identification procedures**		
	I	Are the procedures for compound/analyte identification documented?	Yes	
S14	O, I	**Demonstration of analyst competency (DOC)**		
	I	Was DOC conducted consistent with NELAC Chapter 5C?	Yes	
	I	Is documentation of the analyst's competency up-to-date and on file?	Yes	
S15	O, I	**Verification/validation documentation for methods (NELAC Chap 5n 5)**		
	I	Are all the methods used to generate the data documented, verified, and validated, where applicable?	Yes	
S16	O, I	**Laboratory standard operating procedures (SOPs):**		
	I	Are laboratory SOPs current and on file for each method performed?	Yes	

Table 3. Exception Reports.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh

Reviewer Name: Kelsey Huff

LRC Date: 05/29/2025

Laboratory Job Number: 251170

Prep Batch Number(s): PB25050603

Exception Report No.	Description
ER1	CCB acceptance criteria is CCB<MQL.

[1] Items identified by the letter "R" must be available as a hard copy or as a .pdf file. Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

[2] O - organic analyses; I - inorganic analyses (including general chemistry constituents, when applicable).

[3] NA - Not applicable; NR - Not reviewed.

[4] Exception Report identification number; an Exception Report should be completed for an item if the result is "No" or "NR."

Municipal Solid Waste Laboratory Review Checklist

This data package consists of:

- [x] This signature page, and the laboratory review checklist consisting of Table 1, Reportable Data (which includes the reportable data identified on this page), Table 2, Supporting Data, and Table 3, Exception Reports.
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- [x] R2 Sample identification cross-reference
- [x] R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - (a) Items specified in NELAC Chapter 5 for reporting results, e.g., Section 5.5.10 in 2003 NELAC Standard
  - (b) Dilution factors
  - (c) Preparation methods
  - (d) Cleanup methods
  - (e) If required for the project, tentatively identified compounds (TICs)
- [x] R4 Surrogate recovery data including:
  - (a) Calculated recovery (%R)
  - (b) The laboratory's surrogate QC limits
- [x] R5 Test reports/summary forms for blank samples
- [x] R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - (a) LCS spiking amounts
  - (b) Calculated %R for each analyte
  - (c) The laboratory's LCS QC limits
- [x] R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - (a) Samples associated with the MS/MSD clearly identified
  - (b) MS/MSD spiking amounts
  - (c) Concentration of each MS/MSD analyte measured in the parent and spiked samples
  - (d) Calculated %Rs and relative percent differences (RPDs)
  - (e) The laboratory's MS/MSD QC limits
- [x] R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - (a) The amount of analyte measured in the duplicate
  - (b) The calculated RPD
  - (c) The laboratory's QC limits for analytical duplicates
- [x] R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix
- [x] R10 Other problems or anomalies
- [x] The Exception Report for every item for which the result is "No" or "NR" (Not Reviewed)

Release Statement: I am responsible for the release of this laboratory data package. This data package as been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, if applicable: (●) This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Elizabeth Hoitink	Elizabeth L Hoitink Digitally signed by Elizabeth L Hoitink Date: 2025.05.29 08:10:09 -04'00'	Chemist	5-29-2025
Name (printed)	Signature	Official Title	Date

ICP-MS Laboratory Review Checklist

Table 1. Reportable Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh CCR

Reviewer Name: Elizabeth Hoitink

LRC Date: 5-29-2025

Laboratory Job Number: 251170

Prep Batch Number(s): PB25050703, QC2505072

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
R1	O, I	**Chain-of-custody (COC)**		
	I	Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	Yes	
	I	Were all departures from standard conditions described in an exception report?	Yes	
R2	O, I	**Sample and quality control (QC) identification**		
	I	Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	Yes	
	I	Are all laboratory ID numbers cross-referenced to the corresponding QC data?	Yes	
R3	O, I	**Test reports**		
	I	Were all samples prepared and analyzed within holding times?	Yes	
	I	Other than those results < MQL, were all other raw values bracketed by calibration standards?	No	ER1
	I	Were calculations checked by a peer or supervisor?	Yes	
	I	Were all analyte identifications checked by a peer or supervisor?	Yes	
	I	Were sample quantitation limits reported for all analytes not detected?	Yes	
	I	Were all results for soil and sediment samples reported on a dry weight basis?	NA	
	I	Was % moisture (or solids) reported for all soil and sediment samples?	NA	
	I	If required for the project, TICs reported?	NA	
R4	O	**Surrogate recovery data**		
	I	Were surrogates added prior to extraction?	NA	
	I	Were surrogate percent recoveries in all samples within the laboratory QC limits?	NA	
R5	O, I	**Test reports/summary forms for blank samples**		
	I	Were appropriate type(s) of blanks analyzed?	Yes	
	I	Were blanks analyzed at the appropriate frequency?	Yes	

ICP-MS Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
	I	Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	Yes	
	I	Were blank concentrations < MQL?	Yes	
R6	O, I	**Laboratory control samples (LCS):**		
	I	Were all COCs included in the LCS?	Yes	
	I	Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	Yes	
	I	Were LCSs analyzed at the required frequency?	Yes	
	I	Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	Yes	
	I	Was the LCSD RPD within QC limits?	Yes	
R7	O, I	**Matrix spike (MS) and matrix spike duplicate (MSD) data**		
	I	Were the project/method specified analytes included in the MS and MSD?	Yes	
	I	Were MS/MSD analyzed at the appropriate frequency?	Yes	
	I	Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	No	ER3
	I	Were MS/MSD RPDs within laboratory QC limits?	Yes	
R8	O, I	**Analytical duplicate data**		
	I	Were appropriate analytical duplicates analyzed for each matrix?	Yes	
	I	Were analytical duplicates analyzed at the appropriate frequency?	Yes	
	I	Were RPDs or relative standard deviations within the laboratory QC limits?	Yes	
R9	O, I	**Method quantitation limits (MQLs):**		
	I	Are the MQLs for each method analyte included in the laboratory data package?	Yes	
	I	Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	Yes	
	I	Are unadjusted MQLs included in the laboratory data package?	Yes	
R10	O, I	**Other problems/anomalies**		
	I	Are all known problems/anomalies/special conditions noted in this LRC and ER?	Yes	
	I	Were all necessary corrective actions performed for the reported data?	Yes	
	I	Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	Yes	

Table 2. Supporting Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh CCR

Reviewer Name: Elizabeth Hoitink

LRC Date: 5-29-2025

Laboratory Job Number: 251170

Prep Batch Number(s): PB25050703, QC2505072

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S1	O, I	**Initial calibration (ICAL)**		
	I	Were response factors and/or relative response factors for each analyte within QC limits?	NA	
	I	Were percent RSDs or correlation coefficient criteria met?	Yes	
	I	Was the number of standards recommended in the method used for all analytes?	Yes	
	I	Were all points generated between the lowest and highest standard used to calculate the curve?	Yes	
	I	Are ICAL data available for all instruments used?	Yes	
	I	Has the initial calibration curve been verified using an appropriate second source standard?	Yes	
S2	O, I	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):**		
	I	Was the CCV analyzed at the method-required frequency?	Yes	
	I	Were percent differences for each analyte within the method-required QC limits?	Yes	
	I	Was the ICAL curve verified for each analyte?	Yes	
	I	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	No	ER2
S3	O	**Mass spectral tuning:**		
	I	Was the appropriate compound for the method used for tuning?	Yes	
	I	Were ion abundance data within the method-required QC limits?	Yes	
S4	O	**Internal standards (IS):**		
	I	Were IS area counts and retention times within the method-required QC limits?	Yes	
S5	O, I	**Raw data (NELAC section 1 appendix A glossary, and section 5.)**		
	I	Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Yes	
	I	Were data associated with manual integrations flagged on the raw data?	NA	

ICP-MS Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S6	O	**Dual column confirmation**		
	I	Did dual column confirmation results meet the method-required QC?	NA	
S7	O	**Tentatively identified compounds (TICs):**		
	I	If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?	NA	
S8	I	**Interference Check Sample (ICS) results:**		
	I	Were percent recoveries within method QC limits?	NA	
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**		
	I	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	NA	
S10	O, I	**Method detection limit (MDL) studies**		
	I	Was a MDL study performed for each reported analyte?	Yes	
	I	Is the MDL either adjusted or supported by the analysis of DCSs?	Yes	
S11	O, I	**Proficiency test reports:**		
	I	Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Yes	
S12	O, I	**Standards documentation**		
	I	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Yes	
S13	O, I	**Compound/analyte identification procedures**		
	I	Are the procedures for compound/analyte identification documented?	Yes	
S14	O, I	**Demonstration of analyst competency (DOC)**		
	I	Was DOC conducted consistent with NELAC Chapter 5C?	Yes	
	I	Is documentation of the analyst's competency up-to-date and on file?	Yes	
S15	O, I	**Verification/validation documentation for methods (NELAC Chap 5n 5)**		
	I	Are all the methods used to generate the data documented, verified, and validated, where applicable?	Yes	
S16	O, I	**Laboratory standard operating procedures (SOPs):**		
	I	Are laboratory SOPs current and on file for each method performed?	Yes	

Table 3. Exception Reports.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh CCR

Reviewer Name: Elizabeth Hoitink

LRC Date: 5-29-2025

Laboratory Job Number: 251170

Prep Batch Number(s): PB25050703, QC2505072

Exception Report No.	Description
ER1	Linear Dynamic Range (LDR) study used to determine upper limit of analyte calibration.
ER2	CCB acceptance criteria is CCB<2.2*MDL.
ER3	Matrix Spike Failed for Ca on sample 251170-001

[1] Items identified by the letter "R" must be available as a hard copy or as a .pdf file. Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
[2] O - organic analyses; I - inorganic analyses (including general chemistry constituents, when applicable).
[3] NA - Not applicable; NR - Not reviewed.
[4] Exception Report identification number; an Exception Report should be completed for an item if the result is "No" or "NR."

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 251143 **Customer: Welsh Power Station** **Date Reported: 05/20/2025**

Customer Sample ID: AD-8
Customer Description: TG-32
Lab Number: 251143-001
Preparation:
Date Collected: 04/28/2025 10:04 EDT
Date Received: 05/01/2025 10:00 EDT

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Chloride	19.3	mg/L	2	0.06	0.02		CRJ	05/14/2025 20:07	EPA 300.1 -1997, Rev. 1.0
Fluoride	1.01	mg/L	2	0.06	0.02		CRJ	05/14/2025 20:07	EPA 300.1 -1997, Rev. 1.0
Sulfate	143	mg/L	10	3.0	0.6		CRJ	05/14/2025 14:14	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
TDS, Filterable Residue	290	mg/L	1	50	20		BLB	05/02/2025 08:41	SM 2540C-2015

Customer Sample ID: AD-9
Customer Description: TG-32
Lab Number: 251143-002
Preparation:
Date Collected: 04/28/2025 11:20 EDT
Date Received: 05/01/2025 10:00 EDT

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Chloride	60.3	mg/L	25	0.8	0.3		CRJ	05/14/2025 14:35	EPA 300.1 -1997, Rev. 1.0
Fluoride	0.10	mg/L	2	0.06	0.02		CRJ	05/14/2025 20:28	EPA 300.1 -1997, Rev. 1.0
Sulfate	913	mg/L	25	8	2		CRJ	05/14/2025 14:35	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
TDS, Filterable Residue	1500	mg/L	1	50	20		BLB	05/02/2025 09:02	SM 2540C-2015

Customer Sample ID: AD-15
Customer Description: TG-32
Lab Number: 251143-003
Preparation:
Date Collected: 04/28/2025 10:30 EDT
Date Received: 05/01/2025 10:00 EDT

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Chloride	26.7	mg/L	2	0.06	0.02		CRJ	05/14/2025 14:56	EPA 300.1 -1997, Rev. 1.0
Fluoride	0.06	mg/L	2	0.06	0.02		CRJ	05/14/2025 14:56	EPA 300.1 -1997, Rev. 1.0
Sulfate	5.4	mg/L	2	0.6	0.1		CRJ	05/14/2025 14:56	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
TDS, Filterable Residue	110	mg/L	1	50	20		BLB	05/02/2025 09:08	SM 2540C-2015

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 251143 **Customer: Welsh Power Station** **Date Reported: 05/20/2025**

Customer Sample ID: Duplicate - PBAP
Customer Description: TG-32
Lab Number: 251143-004
Preparation:
Date Collected: 04/28/2025 12:00 EDT
Date Received: 05/01/2025 10:00 EDT

Ion Chromatography

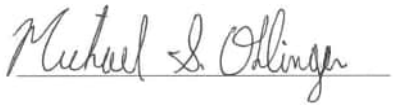
Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Chloride	19.3	mg/L	2	0.06	0.02		CRJ	05/14/2025 21:09	EPA 300.1 -1997, Rev. 1.0
Fluoride	0.99	mg/L	2	0.06	0.02		CRJ	05/14/2025 21:09	EPA 300.1 -1997, Rev. 1.0
Sulfate	142	mg/L	10	3.0	0.6		CRJ	05/14/2025 15:16	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
TDS, Filterable Residue	290	mg/L	1	50	20		BLB	05/02/2025 09:08	SM 2540C-2015

Report Verification

This report and the above data have been confirmed by the following analyst.



Michael Ohlinger, Chemist
Email: msohlinger@aep.com
Phone: 614-836-4184
Audinet: 8-210-4184

THIS TEST REPORT RELATES ONLY TO THE ITEMS TESTED AND SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT WRITTEN APPROVAL OF THE LABORATORY. ALL TEST RESULTS MEET ALL OF THE REQUIREMENTS OF THE ACCREDITING AUTHORITY, UNLESS OTHERWISE NOTED. ALL TIMES LISTED ARE IN THE EASTERN TIME ZONE.

Chain of Custody Record

Program: Coal Combustion Residuals (CCR)

Dolan Chemical Laboratory (DCL)
4001 Bixby Road
Groveport, Ohio 43125

Contacts: Michael Ohlinger (614-836-4184)

Project Name: Welsh PBAP
Contact Name: Pryce Warren
Contact Phone: (325) 310-6668
Sampler(s): Matt Hamilton Kenny McDonald

Analysis Turnaround Time (in Calendar Days)
Routine (28 days)

Site Contact:

Date:

For Lab Use Only:
COC/Order #: 251143

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Sampler(s) Initials	250 mL bottle, pH<2, HNO_3 B, Ca, Ll, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Mo, Se, TL	Field-filter 500 mL bottle, then pH<2, HNO_3 dissolved Fe and Mn	1 L bottle, Cool, 0-6°C TDS, F, Cl, SO_4	Three (six every 10th*) 1 L bottles, pH<2, HNO_3 Ra-226, Ra-228	40 mL Glass vial or 125 mL PTFE lined bottle, HCL^{**}, pH<2 Hg			Sample Specific Notes:
AD-8	4/28/2025	904	G	GW	1				X					Routine (28 days)
AD-9	4/28/2025	1020	G	GW	1				X					TG-32 needed
AD-15	4/28/2025	930	G	GW	1				X					
DUPLICATE - PBAP	4/28/2025	1100	G	GW	1				X					
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____; F= filter in field							4	F4	1	4				

** Six 1L Bottles must be collected for Radium for every 10th sample.*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Date/Time:
Matt Hamilton	Engk	4-30-25 1600		
Relinquished by:	Company:	Date/Time:	Received by:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Date/Time:
				05/01/25 10:00 AM

WATER & WASTE SAMPLE RECEIPT FORM

Form SOP-7102 Sample Receipt Form Rev.10, 01/03/25

Package Type	Delivery Type
(Cooler) Box Bag Envelope	(UPS) FedEX USPS
	Other _____

Plant/Customer Welsh PBAP **Total # of Containers RECEIVED in Job:** 5

Opened By Misgha

Date/Time 05/01/25 10:00Am

Were all required temperatures, per BN-water-900, T≤6°C *w/o sample freezing*? (Y) / N or N/A

Initial/Date: MGrc 05/01/25 (on ice) / no ice

If No, specify each deviation(s) on back of form. (IR Gun Ser# 240093386, *Expir.* 05/20/2025

Was container in good condition? (Y) / N Comments _____

Was Chain of Custody received? (Y) / N Comments _____

Requested turnaround: 28 days If **RUSH**, who was notified? _____

pH (15 min) Cr^{+6} (pres) (24 hr) NO_2 or NO_3 (48 hr) *ortho*-PO_4 (48 hr) Hg-diss (pres) (48 hr)

Were pH requirements met for required samples, per BN-water-900? (Y) / N or N/A

Initial/Date: MGrc 05/01/25

***pH paper*:** mfr Lab Rat Supplies, PN RS-4801, LOT# X000RWDG21, EXPIR DATE 05/31/2026

*** Note changes to pH paper in comments below*

Was Add'l Preservative needed? Y / (N) If Yes: By whom & when: _____ (See Prep Book)

(Dissolved) Is sample filtration requested? Y / (N) Comments _____ (See Prep Book)

Was COC filled out properly? (Y) / N Comments _____

Were samples labeled properly? (Y) / N Comments _____

Were correct containers used? (Y) / N Comments _____

Was the customer contacted? If Yes: Person Contacted: _____

Lab ID# 25-1143 Initial & Date & Time : _____

Logged by MGrc Comments: _____

(Record Test Count on back of form)

Total # of Containers LISTED on COC: 4

WATER & WASTE SAMPLE RECEIPT FORM (CONT)

REMINDER: Document the pertinent sample integrity information and deviations in sample receipt (as noted above) in the Sample or Job "Comments" field in the LIMS. **Comments below**:
i.e. Mark "LF" if needs Lab filtered, Temperature or Preservative deviation, Preserved upon arrival , etc.

JOB # : 251143 **Initial/ Date:** MGL 05/01/25 **Peer Review Initial/ Date:** MLH 5/1/25

Login Test Count from COC	LIMS Sample ID (or COC Sample Name)	Comments /Nonconformities	Peer Review Test Count from COC
4	251143-001		4
4	251143-002		4
4	251143-003		4
4	251143-004		4

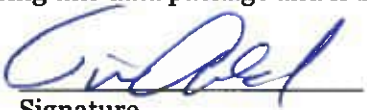
Municipal Solid Waste Laboratory Review Checklist

This data package consists of:

- [x] This signature page, and the laboratory review checklist consisting of Table 1, Reportable Data (which includes the reportable data identified on this page), Table 2, Supporting Data, and Table 3, Exception Reports.
- [x] R1 Field chain-of-custody documentation
- [x] R2 Sample identification cross-reference
- [x] R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - (a) Items specified in NELAC Chapter 5 for reporting results, e.g., Section 5.5.10 in 2003 NELAC Standard
  - (b) Dilution factors
  - (c) Preparation methods
  - (d) Cleanup methods
  - (e) If required for the project, tentatively identified compounds (TICs)
- [x] R4 Surrogate recovery data including:
  - (a) Calculated recovery (%R)
  - (b) The laboratory's surrogate QC limits
- [x] R5 Test reports/summary forms for blank samples
- [x] R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - (a) LCS spiking amounts
  - (b) Calculated %R for each analyte
  - (c) The laboratory's LCS QC limits
- [x] R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - (a) Samples associated with the MS/MSD clearly identified
  - (b) MS/MSD spiking amounts
  - (c) Concentration of each MS/MSD analyte measured in the parent and spiked samples
  - (d) Calculated %Rs and relative percent differences (RPDs)
  - (e) The laboratory's MS/MSD QC limits
- [x] R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - (a) The amount of analyte measured in the duplicate
  - (b) The calculated RPD
  - (c) The laboratory's QC limits for analytical duplicates
- [x] R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix
- [x] R10 Other problems or anomalies
- [x] The Exception Report for every item for which the result is "No" or "NR" (Not Reviewed)

Release Statement: I am responsible for the release of this laboratory data package. This data package as been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, if applicable: (●) This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Tim Arnold		Principle Chemist	5/16/25
Name (printed)	Signature	Official Title	Date

Ion Chromatography Laboratory Review Checklist

Table 1. Reportable Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh PBAP

Reviewer Name: Tim Arnold

LRC Date: 5/16/25

Laboratory Job Number: 251143

Prep Batch Number(s): QC2505110

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
R1	O, I	**Chain-of-custody (COC)**		
	I	Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	Yes	
	I	Were all departures from standard conditions described in an exception report?	Yes	
R2	O, I	**Sample and quality control (QC) identification**		
	I	Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	Yes	
	I	Are all laboratory ID numbers cross-referenced to the corresponding QC data?	Yes	
R3	O, I	**Test reports**		
	I	Were all samples prepared and analyzed within holding times?	Yes	
	I	Other than those results < MQL, were all other raw values bracketed by calibration standards?	Yes	
	I	Were calculations checked by a peer or supervisor?	Yes	
	I	Were all analyte identifications checked by a peer or supervisor?	Yes	
	I	Were sample quantitation limits reported for all analytes not detected?	Yes	
	I	Were all results for soil and sediment samples reported on a dry weight basis?	NA	
	I	Was % moisture (or solids) reported for all soil and sediment samples?	NA	
	I	If required for the project, TICs reported?	NA	
R4	O	**Surrogate recovery data**		
	I	Were surrogates added prior to extraction?	Yes	
	I	Were surrogate percent recoveries in all samples within the laboratory QC limits?	Yes	
R5	O, I	**Test reports/summary forms for blank samples**		
	I	Were appropriate type(s) of blanks analyzed?	Yes	
	I	Were blanks analyzed at the appropriate frequency?	Yes	

Ion Chromatography Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
	I	Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	Yes	
	I	Were blank concentrations < MQL?	Yes	
R6	O, I	**Laboratory control samples (LCS):**		
	I	Were all COCs included in the LCS?	Yes	
	I	Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	Yes	
	I	Were LCSs analyzed at the required frequency?	Yes	
	I	Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	Yes	
	I	Was the LCSD RPD within QC limits?	Yes	
R7	O, I	**Matrix spike (MS) and matrix spike duplicate (MSD) data**		
	I	Were the project/method specified analytes included in the MS and MSD?	Yes	
	I	Were MS/MSD analyzed at the appropriate frequency?	Yes	
	I	Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Were MS/MSD RPDs within laboratory QC limits?	Yes	
R8	O, I	**Analytical duplicate data**		
	I	Were appropriate analytical duplicates analyzed for each matrix?	Yes	
	I	Were analytical duplicates analyzed at the appropriate frequency?	Yes	
	I	Were RPDs or relative standard deviations within the laboratory QC limits?	Yes	
R9	O, I	**Method quantitation limits (MQLs):**		
	I	Are the MQLs for each method analyte included in the laboratory data package?	Yes	
	I	Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	Yes	
	I	Are unadjusted MQLs included in the laboratory data package?	Yes	
R10	O, I	**Other problems/anomalies**		
	I	Are all known problems/anomalies/special conditions noted in this LRC and ER?	Yes	
	I	Were all necessary corrective actions performed for the reported data?	Yes	
	I	Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	Yes	

Ion Chromatography Laboratory Review Checklist

Table 2. Supporting Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh PBAP

Reviewer Name: Tim Arnold

LRC Date: 5/16/25

Laboratory Job Number: 251143

Prep Batch Number(s): QC2505110

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S1	O, I	**Initial calibration (ICAL)**		
	I	Were response factors and/or relative response factors for each analyte within QC limits?	NA	
	I	Were percent RSDs or correlation coefficient criteria met?	Yes	
	I	Was the number of standards recommended in the method used for all analytes?	Yes	
	I	Were all points generated between the lowest and highest standard used to calculate the curve?	Yes	
	I	Are ICAL data available for all instruments used?	Yes	
	I	Has the initial calibration curve been verified using an appropriate second source standard?	Yes	
S2	O, I	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):**		
	I	Was the CCV analyzed at the method-required frequency?	Yes	
	I	Were percent differences for each analyte within the method-required QC limits?	Yes	
	I	Was the ICAL curve verified for each analyte?	Yes	
	I	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	No	ER1
S3	O	**Mass spectral tuning:**		
	I	Was the appropriate compound for the method used for tuning?	NA	
	I	Were ion abundance data within the method-required QC limits?	NA	
S4	O	**Internal standards (IS):**		
	I	Were IS area counts and retention times within the method-required QC limits?	NA	
S5	O, I	**Raw data (NELAC section 1 appendix A glossary, and section 5.)**		
	I	Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Yes	
	I	Were data associated with manual integrations flagged on the raw data?	NA	

Ion Chromatography Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S6	O	**Dual column confirmation**		
	I	Did dual column confirmation results meet the method-required QC?	NA	
S7	O	**Tentatively identified compounds (TICs):**		
	I	If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?	NA	
S8	I	**Interference Check Sample (ICS) results:**		
	I	Were percent recoveries within method QC limits?	NA	
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**		
	I	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	NA	
S10	O, I	**Method detection limit (MDL) studies**		
	I	Was a MDL study performed for each reported analyte?	Yes	
	I	Is the MDL either adjusted or supported by the analysis of DCSs?	Yes	
S11	O, I	**Proficiency test reports:**		
	I	Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Yes	
S12	O, I	**Standards documentation**		
	I	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Yes	
S13	O, I	**Compound/analyte identification procedures**		
	I	Are the procedures for compound/analyte identification documented?	Yes	
S14	O, I	**Demonstration of analyst competency (DOC)**		
	I	Was DOC conducted consistent with NELAC Chapter 5C?	Yes	
	I	Is documentation of the analyst's competency up-to-date and on file?	Yes	
S15	O, I	**Verification/validation documentation for methods (NELAC Chap 5n 5)**		
	I	Are all the methods used to generate the data documented, verified, and validated, where applicable?	Yes	
S16	O, I	**Laboratory standard operating procedures (SOPs):**		
	I	Are laboratory SOPs current and on file for each method performed?	Yes	

Table 3. Exception Reports.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh PBAP

Reviewer Name: Tim Arnold

LRC Date: 5/16/25

Laboratory Job Number: 251143

Prep Batch Number(s): QC2505110

Exception Report No.	Description
ER1	CCB acceptance criteria is CCB<MQL.

[1] Items identified by the letter "R" must be available as a hard copy or as a .pdf file. Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

[2] O - organic analyses; I - inorganic analyses (including general chemistry constituents, when applicable).

[3] NA - Not applicable; NR - Not reviewed.

[4] Exception Report identification number; an Exception Report should be completed for an item if the result is "No" or "NR."

Municipal Solid Waste Laboratory Review Checklist

This data package consists of:

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- [x] R1 Field chain-of-custody documentation
- [x] R2 Sample identification cross-reference
- [x] R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - (a) Items specified in NELAC Chapter 5 for reporting results, e.g., Section 5.5.10 in 2003 NELAC Standard
  - (b) Dilution factors
  - (c) Preparation methods
  - (d) Cleanup methods
  - (e) If required for the project, tentatively identified compounds (TICs)
- [NA] R4 Surrogate recovery data including:
  - (a) Calculated recovery (%R)
  - (b) The laboratory's surrogate QC limits
- [x] R5 Test reports/summary forms for blank samples
- [x] R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - (a) LCS spiking amounts
  - (b) Calculated %R for each analyte
  - (c) The laboratory's LCS QC limits
- [x] R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - (a) Samples associated with the MS/MSD clearly identified
  - (b) MS/MSD spiking amounts
  - (c) Concentration of each MS/MSD analyte measured in the parent and spiked samples
  - (d) Calculated %Rs and relative percent differences (RPDs)
  - (e) The laboratory's MS/MSD QC limits
- [x] R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - (a) The amount of analyte measured in the duplicate
  - (b) The calculated RPD
  - (c) The laboratory's QC limits for analytical duplicates
- [x] R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix
- [x] R10 Other problems or anomalies
- [x] The Exception Report for every item for which the result is "No" or "NR" (Not Reviewed)

Release Statement: I am responsible for the release of this laboratory data package. This data package as been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, if applicable: (●) This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Sandra Williams	Sandra D. Williams	Chemist	5/19/2025
Name (printed)	Signature	Official Title	Date

Table 1. Reportable Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Power Station

Reviewer Name: Sandra Williams

LRC Date: 5/19/2025

Laboratory Job Number: 251143

Prep Batch Number(s): QC2505046

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
R1	O, I	**Chain-of-custody (COC)**		
	I	Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	Yes	
	I	Were all departures from standard conditions described in an exception report?	NA	
R2	O, I	**Sample and quality control (QC) identification**		
	I	Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	Yes	
	I	Are all laboratory ID numbers cross-referenced to the corresponding QC data?	Yes	
R3	O, I	**Test reports**		
	I	Were all samples prepared and analyzed within holding times?	Yes	
	I	Other than those results < MQL, were all other raw values bracketed by calibration standards?	NA	
	I	Were calculations checked by a peer or supervisor?	Yes	
	I	Were all analyte identifications checked by a peer or supervisor?	Yes	
	I	Were sample quantitation limits reported for all analytes not detected?	Yes	
	I	Were all results for soil and sediment samples reported on a dry weight basis?	NA	
	I	Was % moisture (or solids) reported for all soil and sediment samples?	NA	
	I	If required for the project, TICs reported?	NA	
R4	O	**Surrogate recovery data**		
	I	Were surrogates added prior to extraction?	NA	
	I	Were surrogate percent recoveries in all samples within the laboratory QC limits?	NA	
R5	O, I	**Test reports/summary forms for blank samples**		
	I	Were appropriate type(s) of blanks analyzed?	Yes	
	I	Were blanks analyzed at the appropriate frequency?	Yes	

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
	I	Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	Yes	
	I	Were blank concentrations < MQL?	Yes	
R6	O, I	**Laboratory control samples (LCS):**		
	I	Were all COCs included in the LCS?	Yes	
	I	Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	Yes	
	I	Were LCSs analyzed at the required frequency?	Yes	
	I	Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	Yes	
	I	Was the LCSD RPD within QC limits?	Yes	
R7	O, I	**Matrix spike (MS) and matrix spike duplicate (MSD) data**		
	I	Were the project/method specified analytes included in the MS and MSD?	NA	
	I	Were MS/MSD analyzed at the appropriate frequency?	NA	
	I	Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	NA	
	I	Were MS/MSD RPDs within laboratory QC limits?	NA	
R8	O, I	**Analytical duplicate data**		
	I	Were appropriate analytical duplicates analyzed for each matrix?	Yes	
	I	Were analytical duplicates analyzed at the appropriate frequency?	Yes	
	I	Were RPDs or relative standard deviations within the laboratory QC limits?	Yes	
R9	O, I	**Method quantitation limits (MQLs):**		
	I	Are the MQLs for each method analyte included in the laboratory data package?	Yes	
	I	Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	Yes	
	I	Are unadjusted MQLs included in the laboratory data package?	Yes	
R10	O, I	**Other problems/anomalies**		
	I	Are all known problems/anomalies/special conditions noted in this LRC and ER?	Yes	
	I	Were all necessary corrective actions performed for the reported data?	Yes	
	I	Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	Yes	

Table 2. Supporting Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Power Station

Reviewer Name: Sandra Williams

LRC Date: 05/06/2024

Laboratory Job Number: 251143

Prep Batch Number(s): QC2505046

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S1	O, I	**Initial calibration (ICAL)**		
	I	Were response factors and/or relative response factors for each analyte within QC limits?	NA	
	I	Were percent RSDs or correlation coefficient criteria met?	NA	
	I	Was the number of standards recommended in the method used for all analytes?	NA	
	I	Were all points generated between the lowest and highest standard used to calculate the curve?	NA	
	I	Are ICAL data available for all instruments used?	NA	
	I	Has the initial calibration curve been verified using an appropriate second source standard?	NA	
S2	O, I	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):**		
	I	Was the CCV analyzed at the method-required frequency?	NA	
	I	Were percent differences for each analyte within the method-required QC limits?	NA	
	I	Was the ICAL curve verified for each analyte?	NA	
	I	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	NA	
S3	O	**Mass spectral tuning:**		
	I	Was the appropriate compound for the method used for tuning?	NA	
	I	Were ion abundance data within the method-required QC limits?	NA	
S4	O	**Internal standards (IS):**		
	I	Were IS area counts and retention times within the method-required QC limits?	NA	
S5	O, I	**Raw data (NELAC section 1 appendix A glossary, and section 5.)**		
	I	Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Yes	
	I	Were data associated with manual integrations flagged on the raw data?	NA	

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S6	O	**Dual column confirmation**		
	I	Did dual column confirmation results meet the method-required QC?	NA	
S7	O	**Tentatively identified compounds (TICs):**		
	I	If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?	NA	
S8	I	**Interference Check Sample (ICS) results:**		
	I	Were percent recoveries within method QC limits?	NA	
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**		
	I	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	NA	
S10	O, I	**Method detection limit (MDL) studies**		
	I	Was a MDL study performed for each reported analyte?	Yes	
	I	Is the MDL either adjusted or supported by the analysis of DCSs?	Yes	
S11	O, I	**Proficiency test reports:**		
	I	Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Yes	
S12	O, I	**Standards documentation**		
	I	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Yes	
S13	O, I	**Compound/analyte identification procedures**		
	I	Are the procedures for compound/analyte identification documented?	Yes	
S14	O, I	**Demonstration of analyst competency (DOC)**		
	I	Was DOC conducted consistent with NELAC Chapter 5C?	Yes	
	I	Is documentation of the analyst's competency up-to-date and on file?	Yes	
S15	O, I	**Verification/validation documentation for methods (NELAC Chap 5n 5)**		
	I	Are all the methods used to generate the data documented, verified, and validated, where applicable?	Yes	
S16	O, I	**Laboratory standard operating procedures (SOPs):**		
	I	Are laboratory SOPs current and on file for each method performed?	Yes	

Table 3. Exception Reports.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Power Station

Reviewer Name: Sandra Williams

LRC Date: 5/19/2025

Laboratory Job Number: 251143

Prep Batch Number(s): QC2505046

Exception Report No.	Description

[1] Items identified by the letter "R" must be available as a hard copy or as a .pdf file. Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

[2] O - organic analyses; I - inorganic analyses (including general chemistry constituents, when applicable).

[3] NA - Not applicable; NR - Not reviewed.

[4] Exception Report identification number; an Exception Report should be completed for an item if the result is "No" or "NR."

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 252368 **Customer: Welsh Power Station** **Date Reported: 10/10/2025**

Customer Sample ID: AD-1
Lab Number: 252368-001
Date Collected: 09/04/2025 11:09 EDT

Customer Description:
Preparation:
Date Received: 09/10/2025 11:30 EDT

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	0.04	µg/L	1	0.10	0.02	J1	GES	09/11/2025 10:33	EPA 200.8-1994, Rev. 5.4
Arsenic	0.19	µg/L	1	0.10	0.03		GES	09/11/2025 10:33	EPA 200.8-1994, Rev. 5.4
Barium	72.5	µg/L	1	0.20	0.05		GES	09/11/2025 10:33	EPA 200.8-1994, Rev. 5.4
Beryllium	2.03	µg/L	1	0.05	0.02		GES	09/11/2025 18:33	EPA 200.8-1994, Rev. 5.4
Boron	1.00	mg/L	1	0.050	0.006		GES	09/11/2025 10:33	EPA 200.8-1994, Rev. 5.4
Cadmium	0.045	µg/L	1	0.020	0.004		GES	09/11/2025 10:33	EPA 200.8-1994, Rev. 5.4
Calcium	10.6	mg/L	1	0.10	0.02		GES	09/11/2025 10:33	EPA 200.8-1994, Rev. 5.4
Chromium	0.80	µg/L	1	0.30	0.07		GES	09/11/2025 10:33	EPA 200.8-1994, Rev. 5.4
Cobalt	5.66	µg/L	1	0.03	0.01		GES	09/11/2025 10:33	EPA 200.8-1994, Rev. 5.4
Lead	0.31	µg/L	1	0.20	0.05		GES	09/11/2025 10:33	EPA 200.8-1994, Rev. 5.4
Lithium	0.00885	mg/L	1	0.00030	0.00007		GES	09/11/2025 10:33	EPA 200.8-1994, Rev. 5.4
Mercury	6	ng/L	10	5	2		JLD	10/03/2025 00:00	EPA 1631E-2002
Molybdenum	0.87	µg/L	1	0.50	0.05		GES	09/11/2025 10:33	EPA 200.8-1994, Rev. 5.4
Selenium	10.3	µg/L	1	0.50	0.04		GES	09/11/2025 10:33	EPA 200.8-1994, Rev. 5.4
Thallium	0.10	µg/L	1	0.20	0.02	J1	GES	09/11/2025 10:33	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method
Radium-226	2.34	pCi/L	0.56	1.11		ST	09/15/2025 14:05	SW-846 9315-1986, Rev. 0
Carrier Recovery	54.0	%						
Radium-228	1.30	pCi/L	0.16	0.49	L1, P2	ST	09/19/2025 11:31	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	86.4	%						

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 252368 **Customer: Welsh Power Station** **Date Reported: 10/10/2025**

Customer Sample ID: AD-5
Lab Number: 252368-002
Date Collected: 09/03/2025 09:47 EDT

Customer Description:
Preparation:
Date Received: 09/10/2025 11:30 EDT

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	09/11/2025 10:38	EPA 200.8-1994, Rev. 5.4
Arsenic	2.32	µg/L	1	0.10	0.03		GES	09/11/2025 10:38	EPA 200.8-1994, Rev. 5.4
Barium	65.3	µg/L	1	0.20	0.05		GES	09/11/2025 10:38	EPA 200.8-1994, Rev. 5.4
Beryllium	0.05	µg/L	1	0.05	0.02		GES	09/11/2025 18:39	EPA 200.8-1994, Rev. 5.4
Boron	0.076	mg/L	1	0.050	0.006		GES	09/11/2025 10:38	EPA 200.8-1994, Rev. 5.4
Cadmium	<0.004	µg/L	1	0.020	0.004	U1	GES	09/11/2025 10:38	EPA 200.8-1994, Rev. 5.4
Calcium	42.2	mg/L	1	0.10	0.02		GES	09/11/2025 10:38	EPA 200.8-1994, Rev. 5.4
Chromium	0.38	µg/L	1	0.30	0.07		GES	09/11/2025 10:38	EPA 200.8-1994, Rev. 5.4
Cobalt	12.3	µg/L	1	0.03	0.01		GES	09/11/2025 10:38	EPA 200.8-1994, Rev. 5.4
Lead	0.08	µg/L	1	0.20	0.05	J1	GES	09/11/2025 10:38	EPA 200.8-1994, Rev. 5.4
Lithium	0.155	mg/L	1	0.00030	0.00007		GES	09/11/2025 10:38	EPA 200.8-1994, Rev. 5.4
Mercury	<2	ng/L	10	5	2	U1	JLD	10/07/2025 00:00	EPA 1631E-2002
Molybdenum	0.23	µg/L	1	0.50	0.05	J1	GES	09/11/2025 10:38	EPA 200.8-1994, Rev. 5.4
Selenium	0.05	µg/L	1	0.50	0.04	J1	GES	09/11/2025 10:38	EPA 200.8-1994, Rev. 5.4
Thallium	<0.02	µg/L	1	0.20	0.02	U1	GES	09/11/2025 10:38	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method
Radium-226	0.43	pCi/L	0.17	0.35		ST	09/15/2025 14:05	SW-846 9315-1986, Rev. 0
Carrier Recovery	97.4	%						
Radium-228	0.90	pCi/L	0.13	0.40	L1, P2	ST	09/19/2025 11:31	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	89.5	%						

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 252368 **Customer: Welsh Power Station** **Date Reported: 10/10/2025**

Customer Sample ID: AD-17
Lab Number: 252368-003
Date Collected: 09/02/2025 13:16 EDT

Customer Description:
Preparation:
Date Received: 09/10/2025 11:30 EDT

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	0.03	µg/L	1	0.10	0.02	J1	GES	09/11/2025 10:44	EPA 200.8-1994, Rev. 5.4
Arsenic	0.46	µg/L	1	0.10	0.03		GES	09/11/2025 10:44	EPA 200.8-1994, Rev. 5.4
Barium	10.6	µg/L	1	0.20	0.05		GES	09/11/2025 10:44	EPA 200.8-1994, Rev. 5.4
Beryllium	0.05	µg/L	1	0.05	0.02		GES	09/11/2025 18:44	EPA 200.8-1994, Rev. 5.4
Boron	0.122	mg/L	1	0.050	0.006		GES	09/11/2025 10:44	EPA 200.8-1994, Rev. 5.4
Cadmium	0.005	µg/L	1	0.020	0.004	J1	GES	09/11/2025 10:44	EPA 200.8-1994, Rev. 5.4
Calcium	169	mg/L	1	0.10	0.02		GES	09/11/2025 10:44	EPA 200.8-1994, Rev. 5.4
Chromium	0.47	µg/L	1	0.30	0.07		GES	09/11/2025 10:44	EPA 200.8-1994, Rev. 5.4
Cobalt	43.9	µg/L	1	0.03	0.01		GES	09/11/2025 10:44	EPA 200.8-1994, Rev. 5.4
Lead	0.07	µg/L	1	0.20	0.05	J1	GES	09/11/2025 10:44	EPA 200.8-1994, Rev. 5.4
Lithium	0.277	mg/L	1	0.00030	0.00007		GES	09/11/2025 10:44	EPA 200.8-1994, Rev. 5.4
Mercury	<2	ng/L	10	5	2	U1	JLD	10/07/2025 00:00	EPA 1631E-2002
Molybdenum	0.16	µg/L	1	0.50	0.05	J1	GES	09/11/2025 10:44	EPA 200.8-1994, Rev. 5.4
Selenium	0.11	µg/L	1	0.50	0.04	J1	GES	09/11/2025 10:44	EPA 200.8-1994, Rev. 5.4
Thallium	<0.02	µg/L	1	0.20	0.02	U1	GES	09/11/2025 10:44	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method
Radium-226	1.63	pCi/L	0.30	0.41		TTP	09/19/2025 09:46	SW-846 9315-1986, Rev. 0
Carrier Recovery	90.3	%						
Radium-228	1.98	pCi/L	0.16	0.45	L1, P2	ST	09/19/2025 11:31	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	87.8	%						

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 252368 **Customer: Welsh Power Station** **Date Reported: 10/10/2025**

Customer Sample ID: DUP-BACKGROUND
Customer Description:
Lab Number: 252368-004
Preparation:
Date Collected: 09/04/2025 12:33 EDT
Date Received: 09/10/2025 11:30 EDT

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	0.04	µg/L	1	0.10	0.02	J1	GES	09/11/2025 10:49	EPA 200.8-1994, Rev. 5.4
Arsenic	0.20	µg/L	1	0.10	0.03		GES	09/11/2025 10:49	EPA 200.8-1994, Rev. 5.4
Barium	72.1	µg/L	1	0.20	0.05		GES	09/11/2025 10:49	EPA 200.8-1994, Rev. 5.4
Beryllium	1.99	µg/L	1	0.05	0.02		GES	09/11/2025 18:50	EPA 200.8-1994, Rev. 5.4
Boron	0.951	mg/L	1	0.050	0.006		GES	09/11/2025 10:49	EPA 200.8-1994, Rev. 5.4
Cadmium	0.049	µg/L	1	0.020	0.004		GES	09/11/2025 10:49	EPA 200.8-1994, Rev. 5.4
Calcium	10.4	mg/L	1	0.10	0.02		GES	09/11/2025 10:49	EPA 200.8-1994, Rev. 5.4
Chromium	0.73	µg/L	1	0.30	0.07		GES	09/11/2025 10:49	EPA 200.8-1994, Rev. 5.4
Cobalt	5.68	µg/L	1	0.03	0.01		GES	09/11/2025 10:49	EPA 200.8-1994, Rev. 5.4
Lead	0.23	µg/L	1	0.20	0.05		GES	09/11/2025 10:49	EPA 200.8-1994, Rev. 5.4
Lithium	0.00867	mg/L	1	0.00030	0.00007		GES	09/11/2025 10:49	EPA 200.8-1994, Rev. 5.4
Mercury	4	ng/L	10	5	2	J1	JLD	10/07/2025 00:00	EPA 1631E-2002
Molybdenum	0.18	µg/L	1	0.50	0.05	J1	GES	09/11/2025 10:49	EPA 200.8-1994, Rev. 5.4
Selenium	9.90	µg/L	1	0.50	0.04		GES	09/11/2025 10:49	EPA 200.8-1994, Rev. 5.4
Thallium	0.07	µg/L	1	0.20	0.02	J1	GES	09/11/2025 10:49	EPA 200.8-1994, Rev. 5.4

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 252368 **Customer: Welsh Power Station** **Date Reported: 10/10/2025**

Customer Sample ID: EQUIP. BLANK- BACKGROUND
Customer Description:
Lab Number: 252368-005
Preparation:
Date Collected: 09/02/2025 10:38 EDT
Date Received: 09/10/2025 11:30 EDT

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	09/11/2025 10:55	EPA 200.8-1994, Rev. 5.4
Arsenic	<0.03	µg/L	1	0.10	0.03	U1	GES	09/11/2025 10:55	EPA 200.8-1994, Rev. 5.4
Barium	<0.05	µg/L	1	0.20	0.05	U1	GES	09/11/2025 10:55	EPA 200.8-1994, Rev. 5.4
Beryllium	<0.02	µg/L	1	0.05	0.02	U1	GES	09/11/2025 18:55	EPA 200.8-1994, Rev. 5.4
Boron	0.024	mg/L	1	0.050	0.006	J1	GES	09/11/2025 10:55	EPA 200.8-1994, Rev. 5.4
Cadmium	<0.004	µg/L	1	0.020	0.004	U1	GES	09/11/2025 10:55	EPA 200.8-1994, Rev. 5.4
Calcium	0.02	mg/L	1	0.10	0.02	J1	GES	09/11/2025 10:55	EPA 200.8-1994, Rev. 5.4
Chromium	0.33	µg/L	1	0.30	0.07		GES	09/11/2025 10:55	EPA 200.8-1994, Rev. 5.4
Cobalt	0.01	µg/L	1	0.03	0.01	J1	GES	09/11/2025 10:55	EPA 200.8-1994, Rev. 5.4
Lead	<0.05	µg/L	1	0.20	0.05	U1	GES	09/11/2025 10:55	EPA 200.8-1994, Rev. 5.4
Lithium	<0.00007	mg/L	1	0.00030	0.00007	U1	GES	09/11/2025 10:55	EPA 200.8-1994, Rev. 5.4
Mercury	<2	ng/L	10	5	2	U1	JLD	10/07/2025 00:00	EPA 1631E-2002
Molybdenum	0.06	µg/L	1	0.50	0.05	J1	GES	09/11/2025 10:55	EPA 200.8-1994, Rev. 5.4
Selenium	<0.04	µg/L	1	0.50	0.04	U1	GES	09/11/2025 10:55	EPA 200.8-1994, Rev. 5.4
Thallium	<0.02	µg/L	1	0.20	0.02	U1	GES	09/11/2025 10:55	EPA 200.8-1994, Rev. 5.4

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 252368 **Customer: Welsh Power Station** **Date Reported: 10/10/2025**

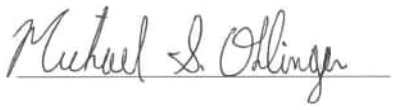
Customer Sample ID: FIELD BLANK-BACKGROUND
Customer Description:
Lab Number: 252368-006
Preparation:
Date Collected: 09/02/2025 10:37 EDT
Date Received: 09/10/2025 11:30 EDT

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	09/11/2025 12:06	EPA 200.8-1994, Rev. 5.4
Arsenic	<0.03	µg/L	1	0.10	0.03	U1	GES	09/11/2025 12:06	EPA 200.8-1994, Rev. 5.4
Barium	<0.05	µg/L	1	0.20	0.05	U1	GES	09/11/2025 12:06	EPA 200.8-1994, Rev. 5.4
Beryllium	<0.02	µg/L	1	0.05	0.02	U1	GES	09/11/2025 19:01	EPA 200.8-1994, Rev. 5.4
Boron	0.006	mg/L	1	0.050	0.006	J1	GES	09/11/2025 12:06	EPA 200.8-1994, Rev. 5.4
Cadmium	<0.004	µg/L	1	0.020	0.004	U1	GES	09/11/2025 12:06	EPA 200.8-1994, Rev. 5.4
Calcium	<0.02	mg/L	1	0.10	0.02	U1	GES	09/11/2025 12:06	EPA 200.8-1994, Rev. 5.4
Chromium	0.33	µg/L	1	0.30	0.07		GES	09/11/2025 12:06	EPA 200.8-1994, Rev. 5.4
Cobalt	<0.01	µg/L	1	0.03	0.01	U1	GES	09/11/2025 12:06	EPA 200.8-1994, Rev. 5.4
Lead	<0.05	µg/L	1	0.20	0.05	U1	GES	09/11/2025 12:06	EPA 200.8-1994, Rev. 5.4
Lithium	<0.00007	mg/L	1	0.00030	0.00007	U1	GES	09/11/2025 12:06	EPA 200.8-1994, Rev. 5.4
Molybdenum	<0.05	µg/L	1	0.50	0.05	U1	GES	09/11/2025 12:06	EPA 200.8-1994, Rev. 5.4
Selenium	<0.04	µg/L	1	0.50	0.04	U1	GES	09/11/2025 12:06	EPA 200.8-1994, Rev. 5.4
Thallium	<0.02	µg/L	1	0.20	0.02	U1	GES	09/11/2025 12:06	EPA 200.8-1994, Rev. 5.4

Report Verification

This report and the above data have been confirmed by the following analyst.



Michael Ohlinger, Chemist
Email: msohlinger@aep.com
Phone: 614-836-4184
Audinet: 8-210-4184

THIS TEST REPORT RELATES ONLY TO THE ITEMS TESTED AND SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT WRITTEN APPROVAL OF THE LABORATORY. ALL TEST RESULTS MEET ALL OF THE REQUIREMENTS OF THE ACCREDITING AUTHORITY, UNLESS OTHERWISE NOTED. ALL TIMES LISTED ARE IN THE EASTERN TIME ZONE.

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 252368 **Customer: Welsh Power Station** **Date Reported: 10/10/2025**

Data Qualifer Legend

J1 - Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.
L1 - The associated laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) recovery was outside acceptance limits.
P2 - The precision on the laboratory control sample duplicate (LCSD) was above acceptance limits.
U1 - Not detected at or below method detection limit (MDL).

Chain of Custody Record

Program: Coal Combustion Residuals (CCR)

Dolan Chemical Laboratory (DCL)
4001 Bixby Road
Groveport, Ohio 43125

Contacts: Michael Ohlinger (614-836-4184)

Project Name: Welsh Background
Contact Name: Pryce Warren
Contact Phone: (325) 310-6668
Sampler(s): Matt Hamilton Brad Bates

Analysis Turnaround Time (in Calendar Days)
Routine (28 days)

Site Contact:

Date:

For Lab Use Only:
COC/Order #: 757366

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Sampler(s) Initials	250 mL bottle, pH<2, HNO_3 B, Ca, Li, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Mo, Se, Tl	Field-filter 500 mL bottle, then pH<2, HNO_3 dissolved Fe and Mn	1 L bottle, Cool, 0-6°C TDS, F, Cl, SO_4	Three (six every 10th*) 1 L bottles, pH<2, HNO_3 Ra-226, Ra-228	250 mL Glass bottle, HCL**, pH<2 Hg			Sample Specific Notes
AD-1	9/4/2025	1009	G	GW	8		X			X	X			Routine (28 days)
AD-5	9/3/2025	847	G	GW	5		X			X	X			TG-32 needed
AD-17	9/2/2025	1216	G	GW	5		X			X	X			
DUPLICATE - BACKGROUND	9/4/2025	1133	G	GW	2		X				X			
EQUIPMENT BLANK - BACKGROUND	9/2/2025	938	G	GW	2		X				X			
FIELD BLANK - BACKGROUND	9/2/2025	937	G	GW	1		X							
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____; F= filter in field							4	F4	1	4	3			

* *Six 1L Bottles must be collected for Radium for every 10th sample.*

Special Instructions/QC Requirements & Comments:

Relinquished by: [signature]	Company: Eagle	Date/Time: 9-5-25 1230	Received by:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Date/Time: 09/09/25 1205 + 09/10/25 1130

WATER & WASTE SAMPLE RECEIPT FORM

Form SOP-7102 Sample Receipt Form Rev.10, 01/03/25

Package Type	Delivery Type
(Cooler) Box Bag Envelope	UPS (FedEX) USPS
	Other _____

Plant/Customer Welsh **Total # of Containers RECEIVED in Job:** 5

Opened By AMR

Date/Time 9.10.25 1130

Were all required temperatures, per BN-water-900, T≤6°C *w/o sample freezing*? Y / N or (N/A)

Initial/Date: NA on ice / (no ice)

If No, specify each deviation(s) on back of form. (IR Gun Ser# 240093386, *Expir.* 01/31/2026)

Was container in good condition? (Y) / N Comments NA

Was Chain of Custody received? (Y) / N Comments NA

Requested turnaround: Routine If **RUSH**, who was notified? NA

pH (15 min) Cr^{+6} (pres) (24 hr) NO_2 or NO_3 (48 hr) *ortho*-PO_4 (48 hr) Hg-diss (pres) (48 hr)

Were pH requirements met for required samples, per BN-water-900? (Y) / N or N/A

Initial/Date: AMR 9.10.25

pH paper: mfr LabRat ,PN LRS-4801 ,LOT# X000RWDG21 ,EXPIR DATE 09/30/2026

***** Note changes to pH paper in comments below***

Was Add'l Preservative needed? Y / (N) If Yes: By whom & when: NA (See Prep Book)

(Dissolved) Is sample filtration requested? Y / (N) Comments NA (See Prep Book)

Was COC filled out properly? (Y) / N Comments _____

Were samples labeled properly? (Y) / N Comments _____

Were correct containers used? (Y) / N Comments _____

Was the customer contacted? If Yes: Person Contacted: _____

Lab ID# 7572368 Initial & Date & Time : _____

Logged by _____ Comments: AD-1 5 radium bottles received 9.10.25, all other samples received on 9.9.25

(Record Test Count on back of form)

Total # of Containers LISTED on COC: 23

WATER & WASTE SAMPLE RECEIPT FORM (CONT)

REMINDER: Document the pertinent sample integrity information and deviations in sample receipt (as noted above) in the Sample or Job "Comments" field in the LIMS. **Comments below**:
i.e. Mark "LF" if needs Lab filtered, Temperature or Preservative deviation, Preserved upon arrival , etc.

JOB # : _____ **Initial/ Date:** _____ **Peer Review Initial/ Date:** _____

Login Test Count from COC	LIMS Sample ID (or COC Sample Name)	Comments /Nonconformities	Peer Review Test Count from COC

WATER & WASTE SAMPLE RECEIPT FORM

Form SOP-7102 Sample Receipt Form Rev.10, 01/03/25

Package Type	Delivery Type
Cooler Box Bag Envelope	UPS FedEX USPS
	Other _____

Plant/Customer Welsh **Total # of Containers RECEIVED in Job:** 18

Opened By KMA/EGM/AML

Date/Time 09/09/25 1705

Were all required temperatures, per BN-water-900, T≤6°C *w/o sample freezing*? Y / N or N/A

Initial/Date: NA on ice / no ice

If No, specify each deviation(s) on back of form. (IR Gun Ser# 240093386, *Expir.* 01/31/2026)

Was container in good condition? Y / N Comments _____

Was Chain of Custody received? Y / N Comments _____

Requested turnaround: Routine If **RUSH**, who was notified? _____

pH (15 min) Cr^{+6} (pres) (24 hr) NO_2 or NO_3 (48 hr) *ortho*-PO_4 (48 hr) Hg-diss (pres) (48 hr)

Were pH requirements met for required samples, per BN-water-900? Y / N or N/A

Initial/Date: EGM 9/9/25

pH paper: mfr LabRat ,PN LRS-4801 LOT# X000RWDG21 ,EXPIR DATE 09/30/2026

***** Note changes to pH paper in comments below***

Was Add'l Preservative needed? Y / N If Yes: By whom & when: NA (See Prep Book)

(Dissolved) Is sample filtration requested? Y / N Comments NA (See Prep Book)

Was COC filled out properly? Y / N Comments _____

Were samples labeled properly? Y / N Comments _____

Were correct containers used? Y / N Comments _____

Was the customer contacted? If Yes: Person Contacted: Matt Hamilton

Lab ID# 7573163 Initial & Date & Time : KMA 09/09/25 1300

Logged by KMA Comments: AO-1 missing 5 Rad. samples, AO-17 missing

(Record Test Count on back of form)

Total # of Containers LISTED on COC: 23

WATER & WASTE SAMPLE RECEIPT FORM (CONT)

Form SOP-7102 Sample Receipt Form Rev.10, 01/03/25

REMINDER: Document the pertinent sample integrity information and deviations in sample receipt (as noted above) in the Sample or Job "Comments" field in the LIMS. **Comments below**:
i.e. Mark "LF" if needs Lab filtered, Temperature or Preservative deviation, Preserved upon arrival , etc.

JOB # : 752368 **Initial/ Date:** KSA 09/10/25 **Peer Review Initial/ Date:** AMR 9.10.25

Login Test Count from COC	LIMS Sample ID (or COC Sample Name)	Comments /Nonconformities	Peer Review Test Count from COC
17	752368 -001	NA	17
17	-002		17
17	-003		17
15	-004		15
15	-005		15
14	-006		14

Municipal Solid Waste Laboratory Review Checklist

This data package consists of:

- [x] This signature page, and the laboratory review checklist consisting of Table 1, Reportable Data (which includes the reportable data identified on this page), Table 2, Supporting Data, and Table 3, Exception Reports.
- [x] R1 Field chain-of-custody documentation
- [x] R2 Sample identification cross-reference
- [x] R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - (a) Items specified in NELAC Chapter 5 for reporting results, e.g., Section 5.5.10 in 2003 NELAC Standard
  - (b) Dilution factors
  - (c) Preparation methods
  - (d) Cleanup methods
  - (e) If required for the project, tentatively identified compounds (TICs)
- [x] R4 Surrogate recovery data including:
  - (a) Calculated recovery (%R)
  - (b) The laboratory's surrogate QC limits
- [x] R5 Test reports/summary forms for blank samples
- [x] R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - (a) LCS spiking amounts
  - (b) Calculated %R for each analyte
  - (c) The laboratory's LCS QC limits
- [x] R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - (a) Samples associated with the MS/MSD clearly identified
  - (b) MS/MSD spiking amounts
  - (c) Concentration of each MS/MSD analyte measured in the parent and spiked samples
  - (d) Calculated %Rs and relative percent differences (RPDs)
  - (e) The laboratory's MS/MSD QC limits
- [x] R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - (a) The amount of analyte measured in the duplicate
  - (b) The calculated RPD
  - (c) The laboratory's QC limits for analytical duplicates
- [x] R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix
- [x] R10 Other problems or anomalies
- [x] The Exception Report for every item for which the result is "No" or "NR" (Not Reviewed)

Release Statement: I am responsible for the release of this laboratory data package. This data package as been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, if applicable: (●) This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Tamisha T. Palmer	Tami T. Palmer	Chemical Technician	10/02/2025
Name (printed)	Signature	Official Title	Date

Radium Laboratory Review Checklist

Table 1. Reportable Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Power Plant

Reviewer Name: Tamisha T. Palmer

LRC Date: 10/02/2025

Laboratory Job Number: 252347, 252366, 252368

Prep Batch Number(s): PB25091202

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
R1	O, I	**Chain-of-custody (COC)**		
	I	Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	Yes	
	I	Were all departures from standard conditions described in an exception report?	Yes	
R2	O, I	**Sample and quality control (QC) identification**		
	I	Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	Yes	
	I	Are all laboratory ID numbers cross-referenced to the corresponding QC data?	Yes	
R3	O, I	**Test reports**		
	I	Were all samples prepared and analyzed within holding times?	Yes	
	I	Other than those results < MQL, were all other raw values bracketed by calibration standards?	NA	
	I	Were calculations checked by a peer or supervisor?	Yes	
	I	Were all analyte identifications checked by a peer or supervisor?	Yes	
	I	Were sample quantitation limits reported for all analytes not detected?	Yes	
	I	Were all results for soil and sediment samples reported on a dry weight basis?	NA	
	I	Was % moisture (or solids) reported for all soil and sediment samples?	NA	
	I	If required for the project, TICs reported?	NA	
R4	O	**Surrogate recovery data**		
	I	Were surrogates added prior to extraction?	NA	
	I	Were surrogate percent recoveries in all samples within the laboratory QC limits?	NA	
R5	O, I	**Test reports/summary forms for blank samples**		
	I	Were appropriate type(s) of blanks analyzed?	Yes	
	I	Were blanks analyzed at the appropriate frequency?	Yes	

Radium Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
	I	Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	Yes	
	I	Were blank concentrations < MQL?	Yes	
R6	O, I	**Laboratory control samples (LCS):**		
	I	Were all COCs included in the LCS?	Yes	
	I	Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	Yes	
	I	Were LCSs analyzed at the required frequency?	Yes	
	I	Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	No	ER1
	I	Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	Yes	
	I	Was the LCSD RPD within QC limits?	Yes	
R7	O, I	**Matrix spike (MS) and matrix spike duplicate (MSD) data**		
	I	Were the project/method specified analytes included in the MS and MSD?	NA	
	I	Were MS/MSD analyzed at the appropriate frequency?	NA	
	I	Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	NA	
	I	Were MS/MSD RPDs within laboratory QC limits?	NA	
R8	O, I	**Analytical duplicate data**		
	I	Were appropriate analytical duplicates analyzed for each matrix?	Yes	
	I	Were analytical duplicates analyzed at the appropriate frequency?	Yes	
	I	Were RPDs or relative standard deviations within the laboratory QC limits?	Yes	
R9	O, I	**Method quantitation limits (MQLs):**		
	I	Are the MQLs for each method analyte included in the laboratory data package?	Yes	
	I	Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	Yes	
	I	Are unadjusted MQLs included in the laboratory data package?	Yes	
R10	O, I	**Other problems/anomalies**		
	I	Are all known problems/anomalies/special conditions noted in this LRC and ER?	Yes	
	I	Were all necessary corrective actions performed for the reported data?	Yes	
	I	Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	Yes	

Table 2. Supporting Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Power Plant

Reviewer Name: Tamisha T. Palmer

LRC Date: 10/02/2025

Laboratory Job Number: 252347, 252366, 252368

Prep Batch Number(s): PB25091202

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S1	O, I	**Initial calibration (ICAL)**		
	I	Were response factors and/or relative response factors for each analyte within QC limits?	NA	
	I	Were percent RSDs or correlation coefficient criteria met?	Yes	
	I	Was the number of standards recommended in the method used for all analytes?	Yes	
	I	Were all points generated between the lowest and highest standard used to calculate the curve?	NA	
	I	Are ICAL data available for all instruments used?	Yes	
	I	Has the initial calibration curve been verified using an appropriate second source standard?	Yes	
S2	O, I	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):**		
	I	Was the CCV analyzed at the method-required frequency?	NA	
	I	Were percent differences for each analyte within the method-required QC limits?	NA	
	I	Was the ICAL curve verified for each analyte?	NA	
	I	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	NA	
S3	O	**Mass spectral tuning:**		
	I	Was the appropriate compound for the method used for tuning?	NA	
	I	Were ion abundance data within the method-required QC limits?	NA	
S4	O	**Internal standards (IS):**		
	I	Were IS area counts and retention times within the method-required QC limits?	NA	
S5	O, I	**Raw data (NELAC section 1 appendix A glossary, and section 5.)**		
	I	Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Yes	
	I	Were data associated with manual integrations flagged on the raw data?	NA	

Radium Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S6	O	**Dual column confirmation**		
	I	Did dual column confirmation results meet the method-required QC?	NA	
S7	O	**Tentatively identified compounds (TICs):**		
	I	If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?	NA	
S8	I	**Interference Check Sample (ICS) results:**		
	I	Were percent recoveries within method QC limits?	NA	
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**		
	I	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	NA	
S10	O, I	**Method detection limit (MDL) studies**		
	I	Was a MDL study performed for each reported analyte?	Yes	
	I	Is the MDL either adjusted or supported by the analysis of DCSs?	Yes	
S11	O, I	**Proficiency test reports:**		
	I	Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Yes	
S12	O, I	**Standards documentation**		
	I	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Yes	
S13	O, I	**Compound/analyte identification procedures**		
	I	Are the procedures for compound/analyte identification documented?	Yes	
S14	O, I	**Demonstration of analyst competency (DOC)**		
	I	Was DOC conducted consistent with NELAC Chapter 5C?	Yes	
	I	Is documentation of the analyst's competency up-to-date and on file?	Yes	
S15	O, I	**Verification/validation documentation for methods (NELAC Chap 5n 5)**		
	I	Are all the methods used to generate the data documented, verified, and validated, where applicable?	Yes	
S16	O, I	**Laboratory standard operating procedures (SOPs):**		
	I	Are laboratory SOPs current and on file for each method performed?	Yes	

Table 3. Exception Reports.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Power Plant

Reviewer Name: Tamisha T. Palmer

LRC Date: 10/02/2025

Laboratory Job Number: 252347, 252366, 252368

Prep Batch Number(s): PB25091202

Exception Report No.	Description
ER1	%Recovery exceeded 110% criteria for both LCS and LCSD

[1] Items identified by the letter "R" must be available as a hard copy or as a .pdf file. Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

[2] O - organic analyses; I - inorganic analyses (including general chemistry constituents, when applicable).

[3] NA - Not applicable; NR - Not reviewed.

[4] Exception Report identification number; an Exception Report should be completed for an item if the result is "No" or "NR."

Municipal Solid Waste Laboratory Review Checklist

This data package consists of:

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- [x] R1 Field chain-of-custody documentation
- [x] R2 Sample identification cross-reference
- [x] R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - (a) Items specified in NELAC Chapter 5 for reporting results, e.g., Section 5.5.10 in 2003 NELAC Standard
  - (b) Dilution factors
  - (c) Preparation methods
  - (d) Cleanup methods
  - (e) If required for the project, tentatively identified compounds (TICs)
- [NA] R4 Surrogate recovery data including:
  - (a) Calculated recovery (%R)
  - (b) The laboratory's surrogate QC limits
- [x] R5 Test reports/summary forms for blank samples
- [x] R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - (a) LCS spiking amounts
  - (b) Calculated %R for each analyte
  - (c) The laboratory's LCS QC limits
- [x] R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - (a) Samples associated with the MS/MSD clearly identified
  - (b) MS/MSD spiking amounts
  - (c) Concentration of each MS/MSD analyte measured in the parent and spiked samples
  - (d) Calculated %Rs and relative percent differences (RPDs)
  - (e) The laboratory's MS/MSD QC limits
- [x] R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - (a) The amount of analyte measured in the duplicate
  - (b) The calculated RPD
  - (c) The laboratory's QC limits for analytical duplicates
- [x] R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix
- [x] R10 Other problems or anomalies
- [x] The Exception Report for every item for which the result is "No" or "NR" (Not Reviewed)

Release Statement: I am responsible for the release of this laboratory data package. This data package as been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, if applicable: (●) This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Tamisha T. Palmer	Tamisha T. Palmer	Chemical Technician Principal	10/02/2025
Name (printed)	Signature	Official Title	Date

Radium Laboratory Review Checklist

Table 1. Reportable Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Power Plant

Reviewer Name: Tamisha Palmer

LRC Date: 10/02/2025

Laboratory Job Number: 252347, 252366, 252368, 252369

Prep Batch Number(s): PB25091101

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
R1	O, I	**Chain-of-custody (COC)**		
	I	Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	Yes	
	I	Were all departures from standard conditions described in an exception report?	Yes	
R2	O, I	**Sample and quality control (QC) identification**		
	I	Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	Yes	
	I	Are all laboratory ID numbers cross-referenced to the corresponding QC data?	Yes	
R3	O, I	**Test reports**		
	I	Were all samples prepared and analyzed within holding times?	Yes	
	I	Other than those results < MQL, were all other raw values bracketed by calibration standards?	NA	
	I	Were calculations checked by a peer or supervisor?	Yes	
	I	Were all analyte identifications checked by a peer or supervisor?	Yes	
	I	Were sample quantitation limits reported for all analytes not detected?	Yes	
	I	Were all results for soil and sediment samples reported on a dry weight basis?	NA	
	I	Was % moisture (or solids) reported for all soil and sediment samples?	NA	
	I	If required for the project, TICs reported?	NA	
R4	O	**Surrogate recovery data**		
	I	Were surrogates added prior to extraction?	NA	
	I	Were surrogate percent recoveries in all samples within the laboratory QC limits?	NA	
R5	O, I	**Test reports/summary forms for blank samples**		
	I	Were appropriate type(s) of blanks analyzed?	Yes	
	I	Were blanks analyzed at the appropriate frequency?	Yes	

Radium Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
	I	Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	Yes	
	I	Were blank concentrations < MQL?	Yes	
R6	O, I	**Laboratory control samples (LCS):**		
	I	Were all COCs included in the LCS?	Yes	
	I	Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	Yes	
	I	Were LCSs analyzed at the required frequency?	Yes	
	I	Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	~~No~~ Yes TD 10/29/25	~~ERT~~ TD 10/29/25 error
	I	Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	Yes	
	I	Was the LCSD RPD within QC limits?	NO ~~Yes~~ 10/29/25	ERI
R7	O, I	**Matrix spike (MS) and matrix spike duplicate (MSD) data**		
	I	Were the project/method specified analytes included in the MS and MSD?	Yes	
	I	Were MS/MSD analyzed at the appropriate frequency?	Yes	
	I	Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Were MS/MSD RPDs within laboratory QC limits?	Yes	
R8	O, I	**Analytical duplicate data**		
	I	Were appropriate analytical duplicates analyzed for each matrix?	NA	
	I	Were analytical duplicates analyzed at the appropriate frequency?	NA	
	I	Were RPDs or relative standard deviations within the laboratory QC limits?	NA	
R9	O, I	**Method quantitation limits (MQLs):**		
	I	Are the MQLs for each method analyte included in the laboratory data package?	Yes	
	I	Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	Yes	
	I	Are unadjusted MQLs included in the laboratory data package?	Yes	
R10	O, I	**Other problems/anomalies**		
	I	Are all known problems/anomalies/special conditions noted in this LRC and ER?	Yes	
	I	Were all necessary corrective actions performed for the reported data?	Yes	
	I	Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	Yes	

Table 2. Supporting Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Power Plant

Reviewer Name: Tamisha Palmer

LRC Date: 10/02/2025

Laboratory Job Number: 252347, 252366, 252368, 252369

Prep Batch Number(s): PB25091101

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S1	O, I	**Initial calibration (ICAL)**		
	I	Were response factors and/or relative response factors for each analyte within QC limits?	NA	
	I	Were percent RSDs or correlation coefficient criteria met?	Yes	
	I	Was the number of standards recommended in the method used for all analytes?	Yes	
	I	Were all points generated between the lowest and highest standard used to calculate the curve?	NA	
	I	Are ICAL data available for all instruments used?	Yes	
	I	Has the initial calibration curve been verified using an appropriate second source standard?	Yes	
S2	O, I	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):**		
	I	Was the CCV analyzed at the method-required frequency?	NA	
	I	Were percent differences for each analyte within the method-required QC limits?	NA	
	I	Was the ICAL curve verified for each analyte?	NA	
	I	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	NA	
S3	O	**Mass spectral tuning:**		
	I	Was the appropriate compound for the method used for tuning?	NA	
	I	Were ion abundance data within the method-required QC limits?	NA	
S4	O	**Internal standards (IS):**		
	I	Were IS area counts and retention times within the method-required QC limits?	NA	
S5	O, I	**Raw data (NELAC section 1 appendix A glossary, and section 5.)**		
	I	Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Yes	
	I	Were data associated with manual integrations flagged on the raw data?	NA	

Radium Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S6	O	**Dual column confirmation**		
	I	Did dual column confirmation results meet the method-required QC?	NA	
S7	O	**Tentatively identified compounds (TICs):**		
	I	If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?	NA	
S8	I	**Interference Check Sample (ICS) results:**		
	I	Were percent recoveries within method QC limits?	NA	
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**		
	I	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	NA	
S10	O, I	**Method detection limit (MDL) studies**		
	I	Was a MDL study performed for each reported analyte?	Yes	
	I	Is the MDL either adjusted or supported by the analysis of DCSs?	Yes	
S11	O, I	**Proficiency test reports:**		
	I	Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Yes	
S12	O, I	**Standards documentation**		
	I	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Yes	
S13	O, I	**Compound/analyte identification procedures**		
	I	Are the procedures for compound/analyte identification documented?	Yes	
S14	O, I	**Demonstration of analyst competency (DOC)**		
	I	Was DOC conducted consistent with NELAC Chapter 5C?	Yes	
	I	Is documentation of the analyst's competency up-to-date and on file?	Yes	
S15	O, I	**Verification/validation documentation for methods (NELAC Chap 5n 5)**		
	I	Are all the methods used to generate the data documented, verified, and validated, where applicable?	Yes	
S16	O, I	**Laboratory standard operating procedures (SOPs):**		
	I	Are laboratory SOPs current and on file for each method performed?	Yes	

Table 3. Exception Reports.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Power Plant

Reviewer Name: Tamisha Palmer

LRC Date: 10/02/2025

Laboratory Job Number: 252347, 252366, 252368, 252369

Prep Batch Number(s): PB25091101

Exception Report No.	Description
ER1	The LCSD was outside the 25% criteria

[1] Items identified by the letter "R" must be available as a hard copy or as a .pdf file. Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

[2] O - organic analyses; I - inorganic analyses (including general chemistry constituents, when applicable).

[3] NA - Not applicable; NR - Not reviewed.

[4] Exception Report identification number; an Exception Report should be completed for an item if the result is "No" or "NR."

Municipal Solid Waste Laboratory Review Checklist

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- [x] R2 Sample identification cross-reference
- [x] R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - (a) Items specified in NELAC Chapter 5 for reporting results, e.g., Section 5.5.10 in 2003 NELAC Standard
  - (b) Dilution factors
  - (c) Preparation methods
  - (d) Cleanup methods
  - (e) If required for the project, tentatively identified compounds (TICs)
- [NA] R4 Surrogate recovery data including:
  - (a) Calculated recovery (%R)
  - (b) The laboratory's surrogate QC limits
- [x] R5 Test reports/summary forms for blank samples
- [x] R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - (a) LCS spiking amounts
  - (b) Calculated %R for each analyte
  - (c) The laboratory's LCS QC limits
- [x] R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - (a) Samples associated with the MS/MSD clearly identified
  - (b) MS/MSD spiking amounts
  - (c) Concentration of each MS/MSD analyte measured in the parent and spiked samples
  - (d) Calculated %Rs and relative percent differences (RPDs)
  - (e) The laboratory's MS/MSD QC limits
- [x] R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - (a) The amount of analyte measured in the duplicate
  - (b) The calculated RPD
  - (c) The laboratory's QC limits for analytical duplicates
- [x] R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix
- [x] R10 Other problems or anomalies
- [x] The Exception Report for every item for which the result is "No" or "NR" (Not Reviewed)

Release Statement: I am responsible for the release of this laboratory data package. This data package as been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, if applicable: (●) This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Kelsey Huff		Chemist	10/09/2025
Name (printed)	Signature	Official Title	Date

Mercury Laboratory Review Checklist

Table 1. Reportable Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh

Reviewer Name: Kelsey Huff

LRC Date: 10/09/2025

Laboratory Job Number: 252368

Prep Batch Number(s): PB25100203, PB25100606

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
R1	O, I	**Chain-of-custody (COC)**		
	I	Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	Yes	
	I	Were all departures from standard conditions described in an exception report?	Yes	
R2	O, I	**Sample and quality control (QC) identification**		
	I	Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	Yes	
	I	Are all laboratory ID numbers cross-referenced to the corresponding QC data?	Yes	
R3	O, I	**Test reports**		
	I	Were all samples prepared and analyzed within holding times?	Yes	
	I	Other than those results < MQL, were all other raw values bracketed by calibration standards?	Yes	
	I	Were calculations checked by a peer or supervisor?	Yes	
	I	Were all analyte identifications checked by a peer or supervisor?	Yes	
	I	Were sample quantitation limits reported for all analytes not detected?	Yes	
	I	Were all results for soil and sediment samples reported on a dry weight basis?	NA	
	I	Was % moisture (or solids) reported for all soil and sediment samples?	NA	
	I	If required for the project, TICs reported?	NA	
R4	O	**Surrogate recovery data**		
	I	Were surrogates added prior to extraction?	NA	
	I	Were surrogate percent recoveries in all samples within the laboratory QC limits?	NA	
R5	O, I	**Test reports/summary forms for blank samples**		
	I	Were appropriate type(s) of blanks analyzed?	Yes	
	I	Were blanks analyzed at the appropriate frequency?	Yes	

Mercury Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
	I	Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	Yes	
	I	Were blank concentrations < MQL?	Yes	
R6	O, I	**Laboratory control samples (LCS):**		
	I	Were all COCs included in the LCS?	Yes	
	I	Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	Yes	
	I	Were LCSs analyzed at the required frequency?	Yes	
	I	Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	Yes	
	I	Was the LCSD RPD within QC limits?	Yes	
R7	O, I	**Matrix spike (MS) and matrix spike duplicate (MSD) data**		
	I	Were the project/method specified analytes included in the MS and MSD?	Yes	
	I	Were MS/MSD analyzed at the appropriate frequency?	Yes	
	I	Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Were MS/MSD RPDs within laboratory QC limits?	Yes	
R8	O, I	**Analytical duplicate data**		
	I	Were appropriate analytical duplicates analyzed for each matrix?	NA	
	I	Were analytical duplicates analyzed at the appropriate frequency?	NA	
	I	Were RPDs or relative standard deviations within the laboratory QC limits?	NA	
R9	O, I	**Method quantitation limits (MQLs):**		
	I	Are the MQLs for each method analyte included in the laboratory data package?	Yes	
	I	Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	Yes	
	I	Are unadjusted MQLs included in the laboratory data package?	Yes	
R10	O, I	**Other problems/anomalies**		
	I	Are all known problems/anomalies/special conditions noted in this LRC and ER?	Yes	
	I	Were all necessary corrective actions performed for the reported data?	Yes	
	I	Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	Yes	

Mercury Laboratory Review Checklist

Table 2. Supporting Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh

Reviewer Name: Kelsey Huff

LRC Date: 10/09/2025

Laboratory Job Number: 252368

Prep Batch Number(s): PB25100203, PB25100606

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S1	O, I	**Initial calibration (ICAL)**		
	I	Were response factors and/or relative response factors for each analyte within QC limits?	NA	
	I	Were percent RSDs or correlation coefficient criteria met?	Yes	
	I	Was the number of standards recommended in the method used for all analytes?	Yes	
	I	Were all points generated between the lowest and highest standard used to calculate the curve?	Yes	
	I	Are ICAL data available for all instruments used?	Yes	
	I	Has the initial calibration curve been verified using an appropriate second source standard?	Yes	
S2	O, I	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):**		
	I	Was the CCV analyzed at the method-required frequency?	Yes	
	I	Were percent differences for each analyte within the method-required QC limits?	Yes	
	I	Was the ICAL curve verified for each analyte?	Yes	
	I	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	No	ER1
S3	O	**Mass spectral tuning:**		
	I	Was the appropriate compound for the method used for tuning?	NA	
	I	Were ion abundance data within the method-required QC limits?	NA	
S4	O	**Internal standards (IS):**		
	I	Were IS area counts and retention times within the method-required QC limits?	NA	
S5	O, I	**Raw data (NELAC section 1 appendix A glossary, and section 5.)**		
	I	Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Yes	
	I	Were data associated with manual integrations flagged on the raw data?	NA	

Mercury Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S6	O	**Dual column confirmation**		
	I	Did dual column confirmation results meet the method-required QC?	NA	
S7	O	**Tentatively identified compounds (TICs):**		
	I	If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?	NA	
S8	I	**Interference Check Sample (ICS) results:**		
	I	Were percent recoveries within method QC limits?	NA	
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**		
	I	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	NA	
S10	O, I	**Method detection limit (MDL) studies**		
	I	Was a MDL study performed for each reported analyte?	Yes	
	I	Is the MDL either adjusted or supported by the analysis of DCSs?	Yes	
S11	O, I	**Proficiency test reports:**		
	I	Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Yes	
S12	O, I	**Standards documentation**		
	I	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Yes	
S13	O, I	**Compound/analyte identification procedures**		
	I	Are the procedures for compound/analyte identification documented?	Yes	
S14	O, I	**Demonstration of analyst competency (DOC)**		
	I	Was DOC conducted consistent with NELAC Chapter 5C?	Yes	
	I	Is documentation of the analyst's competency up-to-date and on file?	Yes	
S15	O, I	**Verification/validation documentation for methods (NELAC Chap 5n 5)**		
	I	Are all the methods used to generate the data documented, verified, and validated, where applicable?	Yes	
S16	O, I	**Laboratory standard operating procedures (SOPs):**		
	I	Are laboratory SOPs current and on file for each method performed?	Yes	

Mercury Laboratory Review Checklist

Table 3. Exception Reports.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh

Reviewer Name: Kelsey Huff

LRC Date: 10/09/2025

Laboratory Job Number: 252368

Prep Batch Number(s): PB25100203, PB25100606

Exception Report No.	Description
ER1	CCB acceptance criteria is CCB<MQL.

[1] Items identified by the letter "R" must be available as a hard copy or as a .pdf file. Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

[2] O - organic analyses; I - inorganic analyses (including general chemistry constituents, when applicable).

[3] NA - Not applicable; NR - Not reviewed.

[4] Exception Report identification number; an Exception Report should be completed for an item if the result is "No" or "NR."

Municipal Solid Waste Laboratory Review Checklist

This data package consists of:

- [x] This signature page, and the laboratory review checklist consisting of Table 1, Reportable Data (which includes the reportable data identified on this page), Table 2, Supporting Data, and Table 3, Exception Reports.
- [x] R1 Field chain-of-custody documentation
- [x] R2 Sample identification cross-reference
- [x] R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - (a) Items specified in NELAC Chapter 5 for reporting results, e.g., Section 5.5.10 in 2003 NELAC Standard
  - (b) Dilution factors
  - (c) Preparation methods
  - (d) Cleanup methods
  - (e) If required for the project, tentatively identified compounds (TICs)
- [NA] R4 Surrogate recovery data including:
  - (a) Calculated recovery (%R)
  - (b) The laboratory's surrogate QC limits
- [x] R5 Test reports/summary forms for blank samples
- [x] R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - (a) LCS spiking amounts
  - (b) Calculated %R for each analyte
  - (c) The laboratory's LCS QC limits
- [x] R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - (a) Samples associated with the MS/MSD clearly identified
  - (b) MS/MSD spiking amounts
  - (c) Concentration of each MS/MSD analyte measured in the parent and spiked samples
  - (d) Calculated %Rs and relative percent differences (RPDs)
  - (e) The laboratory's MS/MSD QC limits
- [x] R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - (a) The amount of analyte measured in the duplicate
  - (b) The calculated RPD
  - (c) The laboratory's QC limits for analytical duplicates
- [x] R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix
- [x] R10 Other problems or anomalies
- [x] The Exception Report for every item for which the result is "No" or "NR" (Not Reviewed)

Release Statement: I am responsible for the release of this laboratory data package. This data package as been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, if applicable: (●) This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Elizabeth Hoitink	Elizabeth L Hoitink Digitally signed by Elizabeth L Hoitink Date: 2025.09.16 08:05:01 -04'00'	Chemist	9-16-2025
Name (printed)	Signature	Official Title	Date

ICP-MS Laboratory Review Checklist

Table 1. Reportable Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh CCR

Reviewer Name: Elizabeth Hoitink

LRC Date: 9-16-2025

Laboratory Job Number: 252368

Prep Batch Number(s): PB25091001, QC2509079, QC2509080

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
R1	O, I	**Chain-of-custody (COC)**		
	I	Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	Yes	
	I	Were all departures from standard conditions described in an exception report?	Yes	
R2	O, I	**Sample and quality control (QC) identification**		
	I	Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	Yes	
	I	Are all laboratory ID numbers cross-referenced to the corresponding QC data?	Yes	
R3	O, I	**Test reports**		
	I	Were all samples prepared and analyzed within holding times?	Yes	
	I	Other than those results < MQL, were all other raw values bracketed by calibration standards?	No	ER1
	I	Were calculations checked by a peer or supervisor?	Yes	
	I	Were all analyte identifications checked by a peer or supervisor?	Yes	
	I	Were sample quantitation limits reported for all analytes not detected?	Yes	
	I	Were all results for soil and sediment samples reported on a dry weight basis?	NA	
	I	Was % moisture (or solids) reported for all soil and sediment samples?	NA	
	I	If required for the project, TICs reported?	NA	
R4	O	**Surrogate recovery data**		
	I	Were surrogates added prior to extraction?	NA	
	I	Were surrogate percent recoveries in all samples within the laboratory QC limits?	NA	
R5	O, I	**Test reports/summary forms for blank samples**		
	I	Were appropriate type(s) of blanks analyzed?	Yes	
	I	Were blanks analyzed at the appropriate frequency?	Yes	

ICP-MS Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
	I	Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	Yes	
	I	Were blank concentrations < MQL?	Yes	
R6	O, I	**Laboratory control samples (LCS):**		
	I	Were all COCs included in the LCS?	Yes	
	I	Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	Yes	
	I	Were LCSs analyzed at the required frequency?	Yes	
	I	Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	Yes	
	I	Was the LCSD RPD within QC limits?	Yes	
R7	O, I	**Matrix spike (MS) and matrix spike duplicate (MSD) data**		
	I	Were the project/method specified analytes included in the MS and MSD?	Yes	
	I	Were MS/MSD analyzed at the appropriate frequency?	Yes	
	I	Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	yes	
	I	Were MS/MSD RPDs within laboratory QC limits?	yes	
R8	O, I	**Analytical duplicate data**		
	I	Were appropriate analytical duplicates analyzed for each matrix?	Yes	
	I	Were analytical duplicates analyzed at the appropriate frequency?	Yes	
	I	Were RPDs or relative standard deviations within the laboratory QC limits?	Yes	
R9	O, I	**Method quantitation limits (MQLs):**		
	I	Are the MQLs for each method analyte included in the laboratory data package?	Yes	
	I	Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	Yes	
	I	Are unadjusted MQLs included in the laboratory data package?	Yes	
R10	O, I	**Other problems/anomalies**		
	I	Are all known problems/anomalies/special conditions noted in this LRC and ER?	Yes	
	I	Were all necessary corrective actions performed for the reported data?	Yes	
	I	Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	Yes	

Table 2. Supporting Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh CCR

Reviewer Name: Elizabeth Hoitink

LRC Date: 9-16-2025

Laboratory Job Number: 252368

Prep Batch Number(s): PB25091001, QC2509079, QC2509080

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S1	O, I	**Initial calibration (ICAL)**		
	I	Were response factors and/or relative response factors for each analyte within QC limits?	NA	
	I	Were percent RSDs or correlation coefficient criteria met?	Yes	
	I	Was the number of standards recommended in the method used for all analytes?	Yes	
	I	Were all points generated between the lowest and highest standard used to calculate the curve?	Yes	
	I	Are ICAL data available for all instruments used?	Yes	
	I	Has the initial calibration curve been verified using an appropriate second source standard?	Yes	
S2	O, I	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):**		
	I	Was the CCV analyzed at the method-required frequency?	Yes	
	I	Were percent differences for each analyte within the method-required QC limits?	Yes	
	I	Was the ICAL curve verified for each analyte?	Yes	
	I	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	No	ER2
S3	O	**Mass spectral tuning:**		
	I	Was the appropriate compound for the method used for tuning?	Yes	
	I	Were ion abundance data within the method-required QC limits?	Yes	
S4	O	**Internal standards (IS):**		
	I	Were IS area counts and retention times within the method-required QC limits?	Yes	
S5	O, I	**Raw data (NELAC section 1 appendix A glossary, and section 5.)**		
	I	Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Yes	
	I	Were data associated with manual integrations flagged on the raw data?	NA	

ICP-MS Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S6	O	**Dual column confirmation**		
	I	Did dual column confirmation results meet the method-required QC?	NA	
S7	O	**Tentatively identified compounds (TICs):**		
	I	If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?	NA	
S8	I	**Interference Check Sample (ICS) results:**		
	I	Were percent recoveries within method QC limits?	NA	
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**		
	I	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	NA	
S10	O, I	**Method detection limit (MDL) studies**		
	I	Was a MDL study performed for each reported analyte?	Yes	
	I	Is the MDL either adjusted or supported by the analysis of DCSs?	Yes	
S11	O, I	**Proficiency test reports:**		
	I	Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Yes	
S12	O, I	**Standards documentation**		
	I	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Yes	
S13	O, I	**Compound/analyte identification procedures**		
	I	Are the procedures for compound/analyte identification documented?	Yes	
S14	O, I	**Demonstration of analyst competency (DOC)**		
	I	Was DOC conducted consistent with NELAC Chapter 5C?	Yes	
	I	Is documentation of the analyst's competency up-to-date and on file?	Yes	
S15	O, I	**Verification/validation documentation for methods (NELAC Chap 5n 5)**		
	I	Are all the methods used to generate the data documented, verified, and validated, where applicable?	Yes	
S16	O, I	**Laboratory standard operating procedures (SOPs):**		
	I	Are laboratory SOPs current and on file for each method performed?	Yes	

Table 3. Exception Reports.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh CCR

Reviewer Name: Elizabeth Hoitink

LRC Date: 9-16-2025

Laboratory Job Number: 252368

Prep Batch Number(s): PB25091001, QC2509079, QC2509080

Exception Report No.	Description
ER1	Linear Dynamic Range (LDR) study used to determine upper limit of analyte calibration.
ER2	CCB acceptance criteria is CCB<2.2*MDL.

[1] Items identified by the letter "R" must be available as a hard copy or as a .pdf file. Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
[2] O - organic analyses; I - inorganic analyses (including general chemistry constituents, when applicable).
[3] NA - Not applicable; NR - Not reviewed.
[4] Exception Report identification number; an Exception Report should be completed for an item if the result is "No" or "NR."

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 252320 **Customer: Welsh Power Station** **Date Reported: 10/03/2025**

Customer Sample ID: AD-1
Lab Number: 252320-001
Date Collected: 09/04/2025 11:09 EDT
Customer Description:
Preparation:
Date Received: 09/05/2025 10:25 EDT

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Chloride	4.63	mg/L	2	0.06	0.02		JCF	09/10/2025 16:55	EPA 300.1-1997, Rev. 1.0
Fluoride	0.65	mg/L	2	0.06	0.02		JCF	09/10/2025 16:55	EPA 300.1-1997, Rev. 1.0
Sulfate	141	mg/L	10	3.0	0.2		JCF	09/10/2025 15:02	EPA 300.1-1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
TDS, Filterable Residue	280	mg/L	1	50	20		BLB	09/05/2025 12:29	SM 2540C-2020

Customer Sample ID: AD-5
Lab Number: 252320-002
Date Collected: 09/03/2025 09:47 EDT
Customer Description:
Preparation:
Date Received: 09/05/2025 10:25 EDT

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Chloride	17.1	mg/L	2	0.06	0.02		JCF	09/10/2025 17:18	EPA 300.1-1997, Rev. 1.0
Fluoride	0.21	mg/L	2	0.06	0.02		JCF	09/10/2025 17:18	EPA 300.1-1997, Rev. 1.0
Sulfate	103	mg/L	10	3.0	0.2		JCF	09/10/2025 15:24	EPA 300.1-1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
TDS, Filterable Residue	290	mg/L	1	50	20		BLB	09/05/2025 12:29	SM 2540C-2020

Customer Sample ID: AD-17
Lab Number: 252320-003
Date Collected: 09/02/2025 13:16 EDT
Customer Description:
Preparation:
Date Received: 09/05/2025 10:25 EDT

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Chloride	38.5	mg/L	5	0.15	0.05		JCF	09/10/2025 17:41	EPA 300.1-1997, Rev. 1.0
Fluoride	0.13	mg/L	5	0.15	0.05	J1	JCF	09/10/2025 17:41	EPA 300.1-1997, Rev. 1.0
Sulfate	1030	mg/L	50	15	1		JCF	09/10/2025 15:47	EPA 300.1-1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
TDS, Filterable Residue	1660	mg/L	2	100	40		BLB	09/05/2025 12:29	SM 2540C-2020

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 252320 **Customer: Welsh Power Station** **Date Reported: 10/03/2025**

Customer Sample ID: DUP- BACKGROUND
Lab Number: 252320-004
Date Collected: 09/04/2025 12:33 EDT

Customer Description:
Preparation:
Date Received: 09/05/2025 10:25 EDT

Ion Chromatography

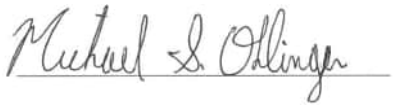
Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Chloride	4.58	mg/L	2	0.06	0.02		JCF	09/10/2025 18:03	EPA 300.1 -1997, Rev. 1.0
Fluoride	0.65	mg/L	2	0.06	0.02		JCF	09/10/2025 18:03	EPA 300.1 -1997, Rev. 1.0
Sulfate	129	mg/L	10	3.0	0.2		JCF	09/11/2025 12:29	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
TDS, Filterable Residue	270	mg/L	1	50	20		BLB	09/05/2025 12:29	SM 2540C-2020

Report Verification

This report and the above data have been confirmed by the following analyst.



Michael Ohlinger, Chemist
Email: msohlinger@aep.com
Phone: 614-836-4184
Audinet: 8-210-4184

THIS TEST REPORT RELATES ONLY TO THE ITEMS TESTED AND SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT WRITTEN APPROVAL OF THE LABORATORY. ALL TEST RESULTS MEET ALL OF THE REQUIREMENTS OF THE ACCREDITING AUTHORITY, UNLESS OTHERWISE NOTED. ALL TIMES LISTED ARE IN THE EASTERN TIME ZONE.

Data Qualifer Legend

J1 - Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.

Chain of Custody Record

Program: Coal Combustion Residuals (CCR)

Dolan Chemical Laboratory (DCL)
4001 Bixby Road
Groveport, Ohio 43125

Contacts: Michael Ohlinger (614-836-4184)

Project Name: Welsh Background
Contact Name: Pryce Warren
Contact Phone: (325) 310-6668
Sampler(s): Matt Hamilton Brad Bates

Analysis Turnaround Time (in Calendar Days)
Routine (28 days)

Site Contact:

Date:

For Lab Use Only:
COC/Order #: 25320

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Sampler(s) Initials	250 mL bottle, pH<2, HNO_3 B, Ca, Li, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Mo, Se, TL	Field-filter 500 mL bottle, then pH<2, HNO_3 dissolved Fe and Mn	1 L bottle, Cool, 0-6°C TDS, F, Cl, SO_4	Three (six every 10th*) 1 L bottles, pH<2, HNO_3 Ra-226, Ra-228	40 mL Glass vial or 125 mL PTFE lined bottle, HCL**, pH<2 Hg			Sample Specific Notes
AD-1	9/4/2025	1009	G	GW	1				X					TG-32 needed
AD-5	9/3/2025	847	G	GW	1				X					
AD-17	9/2/2025	1216	G	GW	1				X					
DUPLICATE - BACKGROUND	9/4/2025	1133	G	GW	1				X					
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____; F= filter in field							4	F4	1	4				

** Six 1L Bottles must be collected for Radium for every 10th sample.*

Special Instructions/QC Requirements & Comments:

Relinquished by	Company	Date/Time	Received by	Date/Time
[signature]	Eagle	9-4-25 10a		
Relinquished by	Company	Date/Time	Received by	Date/Time
Relinquished by	Company	Date/Time	Received in Laboratory by	Date/Time 09/05/25 1025

WATER & WASTE SAMPLE RECEIPT FORM

Form SOP-7102 Sample Receipt Form Rev.10, 01/03/25

Package Type

(Cooler) Box Bag Envelope

Delivery Type

UPS FedEX USPS

Other _____

Plant/Customer Welsh **Total # of Containers RECEIVED in Job:** 4

Opened By KM/EGM

Date/Time 09/05/25 1025

Were all required temperatures, per BN-water-900, T≤6°C *w/o sample freezing*? (Y) N or N/A

Initial/Date: EGM 9/5/25 (on ice) / no ice

If No, specify each deviation(s) on back of form. (IR Gun Ser# 240093386, *Expir.* 01/31/2026)

Was container in good condition? (Y) / N Comments _____

Was Chain of Custody received? (Y) / N Comments _____

Requested turnaround: routine If **RUSH**, who was notified? _____

pH (15 min) Cr^{+6} (pres) (24 hr) NO_2 or NO_3 (48 hr) *ortho*-PO_4 (48 hr) Hg-diss (pres) (48 hr)

Were pH requirements met for required samples, per BN-water-900? (Y) N or N/A

Initial/Date: EGM 9/5/25

***pH paper:* mfr LabRat ,PN LRS-4801 ,LOT# X000RWDG21 ,EXPIR DATE 09/30/2026

*** Note changes to pH paper in comments below***

Was Add'l Preservative needed? Y / (N) If Yes: By whom & when: N/A (See Prep Book)

(Dissolved) Is sample filtration requested? Y / (N) Comments N/A (See Prep Book)

Was COC filled out properly? (Y) / N Comments _____

Were samples labeled properly? (Y) / N Comments _____

Were correct containers used? (Y) / N Comments _____

Was the customer contacted? If Yes: Person Contacted: _____

Lab ID# 752320 Initial & Date & Time : _____

Logged by KM Comments: _____

(Record Test Count on back of form)

Total # of Containers LISTED on COC: 4

WATER & WASTE SAMPLE RECEIPT FORM (CONT)

Form SOP-7102 Sample Receipt Form Rev 10, 01/03/25

REMINDER: Document the pertinent sample integrity information and deviations in sample receipt (as noted above) in the Sample or Job "Comments" field in the LIMS. **Comments below**:
i.e. Mark "LF" if needs Lab filtered, Temperature or Preservative deviation, Preserved upon arrival , etc.

JOB # : 752320 **Initial/ Date:** [illegible] 09/05/25 **Peer Review Initial/ Date:** EGM 9/5/25

Login Test Count from COC	LIMS Sample ID (or COC Sample Name)	Comments /Nonconformities	Peer Review Test Count from COC
4	752320-001		4
↓	-002	NA	↓
	-003		
	-004		

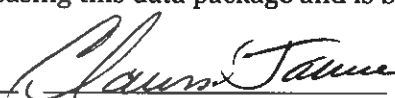
Municipal Solid Waste Laboratory Review Checklist

This data package consists of:

- [x] This signature page, and the laboratory review checklist consisting of Table 1, Reportable Data (which includes the reportable data identified on this page), Table 2, Supporting Data, and Table 3, Exception Reports.
- [x] R1 Field chain-of-custody documentation
- [x] R2 Sample identification cross-reference
- [x] R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - (a) Items specified in NELAC Chapter 5 for reporting results, e.g., Section 5.5.10 in 2003 NELAC Standard
  - (b) Dilution factors
  - (c) Preparation methods
  - (d) Cleanup methods
  - (e) If required for the project, tentatively identified compounds (TICs)
- [x] R4 Surrogate recovery data including:
  - (a) Calculated recovery (%R)
  - (b) The laboratory's surrogate QC limits
- [x] R5 Test reports/summary forms for blank samples
- [x] R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - (a) LCS spiking amounts
  - (b) Calculated %R for each analyte
  - (c) The laboratory's LCS QC limits
- [x] R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - (a) Samples associated with the MS/MSD clearly identified
  - (b) MS/MSD spiking amounts
  - (c) Concentration of each MS/MSD analyte measured in the parent and spiked samples
  - (d) Calculated %Rs and relative percent differences (RPDs)
  - (e) The laboratory's MS/MSD QC limits
- [x] R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - (a) The amount of analyte measured in the duplicate
  - (b) The calculated RPD
  - (c) The laboratory's QC limits for analytical duplicates
- [x] R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix
- [x] R10 Other problems or anomalies
- [x] The Exception Report for every item for which the result is "No" or "NR" (Not Reviewed)

Release Statement: I am responsible for the release of this laboratory data package. This data package as been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, if applicable: (●) This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Clarissa Jameson		Chemical Lab Tech. Principle	9/25/26
Name (printed)	Signature	Official Title	Date

Ion Chromatography Laboratory Review Checklist

Table 1. Reportable Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Background

Reviewer Name: Clarissa Jameson

LRC Date: 9/26/2025

Laboratory Job Number: 252320

Prep Batch Number(s): QC2509067

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
R1	O, I	**Chain-of-custody (COC)**		
	I	Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	Yes	
	I	Were all departures from standard conditions described in an exception report?	Yes	
R2	O, I	**Sample and quality control (QC) identification**		
	I	Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	Yes	
	I	Are all laboratory ID numbers cross-referenced to the corresponding QC data?	Yes	
R3	O, I	**Test reports**		
	I	Were all samples prepared and analyzed within holding times?	Yes	
	I	Other than those results < MQL, were all other raw values bracketed by calibration standards?	Yes	
	I	Were calculations checked by a peer or supervisor?	Yes	
	I	Were all analyte identifications checked by a peer or supervisor?	Yes	
	I	Were sample quantitation limits reported for all analytes not detected?	Yes	
	I	Were all results for soil and sediment samples reported on a dry weight basis?	NA	
	I	Was % moisture (or solids) reported for all soil and sediment samples?	NA	
	I	If required for the project, TICs reported?	NA	
R4	O	**Surrogate recovery data**		
	I	Were surrogates added prior to extraction?	Yes	
	I	Were surrogate percent recoveries in all samples within the laboratory QC limits?	Yes	
R5	O, I	**Test reports/summary forms for blank samples**		
	I	Were appropriate type(s) of blanks analyzed?	Yes	
	I	Were blanks analyzed at the appropriate frequency?	Yes	

Ion Chromatography Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
	I	Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	Yes	
	I	Were blank concentrations < MQL?	Yes	
R6	O, I	**Laboratory control samples (LCS):**		
	I	Were all COCs included in the LCS?	Yes	
	I	Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	Yes	
	I	Were LCSs analyzed at the required frequency?	Yes	
	I	Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	Yes	
	I	Was the LCSD RPD within QC limits?	Yes	
R7	O, I	**Matrix spike (MS) and matrix spike duplicate (MSD) data**		
	I	Were the project/method specified analytes included in the MS and MSD?	Yes	
	I	Were MS/MSD analyzed at the appropriate frequency?	Yes	
	I	Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Were MS/MSD RPDs within laboratory QC limits?	Yes	
R8	O, I	**Analytical duplicate data**		
	I	Were appropriate analytical duplicates analyzed for each matrix?	Yes	
	I	Were analytical duplicates analyzed at the appropriate frequency?	Yes	
	I	Were RPDs or relative standard deviations within the laboratory QC limits?	Yes	
R9	O, I	**Method quantitation limits (MQLs):**		
	I	Are the MQLs for each method analyte included in the laboratory data package?	Yes	
	I	Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	Yes	
	I	Are unadjusted MQLs included in the laboratory data package?	Yes	
R10	O, I	**Other problems/anomalies**		
	I	Are all known problems/anomalies/special conditions noted in this LRC and ER?	Yes	
	I	Were all necessary corrective actions performed for the reported data?	Yes	
	I	Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	Yes	

Ion Chromatography Laboratory Review Checklist

Table 2. Supporting Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Background

Reviewer Name: Clarissa Jameson

LRC Date: 9/26/2025

Laboratory Job Number: 252320

Prep Batch Number(s): QC2509067

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S1	O, I	**Initial calibration (ICAL)**		
	I	Were response factors and/or relative response factors for each analyte within QC limits?	NA	
	I	Were percent RSDs or correlation coefficient criteria met?	Yes	
	I	Was the number of standards recommended in the method used for all analytes?	Yes	
	I	Were all points generated between the lowest and highest standard used to calculate the curve?	Yes	
	I	Are ICAL data available for all instruments used?	Yes	
	I	Has the initial calibration curve been verified using an appropriate second source standard?	Yes	
S2	O, I	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):**		
	I	Was the CCV analyzed at the method-required frequency?	Yes	
	I	Were percent differences for each analyte within the method-required QC limits?	Yes	
	I	Was the ICAL curve verified for each analyte?	Yes	
	I	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	No	ER1
S3	O	**Mass spectral tuning:**		
	I	Was the appropriate compound for the method used for tuning?	NA	
	I	Were ion abundance data within the method-required QC limits?	NA	
S4	O	**Internal standards (IS):**		
	I	Were IS area counts and retention times within the method-required QC limits?	NA	
S5	O, I	**Raw data (NELAC section 1 appendix A glossary, and section 5.)**		
	I	Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Yes	
	I	Were data associated with manual integrations flagged on the raw data?	NA	

Ion Chromatography Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S6	O	**Dual column confirmation**		
	I	Did dual column confirmation results meet the method-required QC?	NA	
S7	O	**Tentatively identified compounds (TICs):**		
	I	If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?	NA	
S8	I	**Interference Check Sample (ICS) results:**		
	I	Were percent recoveries within method QC limits?	NA	
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**		
	I	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	NA	
S10	O, I	**Method detection limit (MDL) studies**		
	I	Was a MDL study performed for each reported analyte?	Yes	
	I	Is the MDL either adjusted or supported by the analysis of DCSs?	Yes	
S11	O, I	**Proficiency test reports:**		
	I	Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Yes	
S12	O, I	**Standards documentation**		
	I	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Yes	
S13	O, I	**Compound/analyte identification procedures**		
	I	Are the procedures for compound/analyte identification documented?	Yes	
S14	O, I	**Demonstration of analyst competency (DOC)**		
	I	Was DOC conducted consistent with NELAC Chapter 5C?	Yes	
	I	Is documentation of the analyst's competency up-to-date and on file?	Yes	
S15	O, I	**Verification/validation documentation for methods (NELAC Chap 5n 5)**		
	I	Are all the methods used to generate the data documented, verified, and validated, where applicable?	Yes	
S16	O, I	**Laboratory standard operating procedures (SOPs):**		
	I	Are laboratory SOPs current and on file for each method performed?	Yes	

Table 3. Exception Reports.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Background

Reviewer Name: Clarissa Jameson

LRC Date: 9/26/2025

Laboratory Job Number: 252320

Prep Batch Number(s): QC2509067

Exception Report No.	Description
ER1	CCB acceptance criteria is CCB<MQL.

[1] Items identified by the letter "R" must be available as a hard copy or as a .pdf file. Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
[2] O - organic analyses; I - inorganic analyses (including general chemistry constituents, when applicable).
[3] NA - Not applicable; NR - Not reviewed.
[4] Exception Report identification number; an Exception Report should be completed for an item if the result is "No" or "NR."

Municipal Solid Waste Laboratory Review Checklist

This data package consists of:

- [x] This signature page, and the laboratory review checklist consisting of Table 1, Reportable Data (which includes the reportable data identified on this page), Table 2, Supporting Data, and Table 3, Exception Reports.
- [x] R1 Field chain-of-custody documentation
- [x] R2 Sample identification cross-reference
- [x] R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - (a) Items specified in NELAC Chapter 5 for reporting results, e.g., Section 5.5.10 in 2003 NELAC Standard
  - (b) Dilution factors
  - (c) Preparation methods
  - (d) Cleanup methods
  - (e) If required for the project, tentatively identified compounds (TICs)
- [NA] R4 Surrogate recovery data including:
  - (a) Calculated recovery (%R)
  - (b) The laboratory's surrogate QC limits
- [x] R5 Test reports/summary forms for blank samples
- [x] R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - (a) LCS spiking amounts
  - (b) Calculated %R for each analyte
  - (c) The laboratory's LCS QC limits
- [x] R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - (a) Samples associated with the MS/MSD clearly identified
  - (b) MS/MSD spiking amounts
  - (c) Concentration of each MS/MSD analyte measured in the parent and spiked samples
  - (d) Calculated %Rs and relative percent differences (RPDs)
  - (e) The laboratory's MS/MSD QC limits
- [x] R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - (a) The amount of analyte measured in the duplicate
  - (b) The calculated RPD
  - (c) The laboratory's QC limits for analytical duplicates
- [x] R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix
- [x] R10 Other problems or anomalies
- [x] The Exception Report for every item for which the result is "No" or "NR" (Not Reviewed)

Release Statement: I am responsible for the release of this laboratory data package. This data package as been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, if applicable: (●) This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Sandra Williams	Sandra D. Williams	Chemist	9/22/2025
Name (printed)	Signature	Official Title	Date

TDS Laboratory Review Checklist

Table 1. Reportable Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Power Station

Reviewer Name: Sandra Williams

LRC Date: 9/22/2025

Laboratory Job Number: 252320

Prep Batch Number(s): QC2509060

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
R1	O, I	**Chain-of-custody (COC)**		
	I	Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	Yes	
	I	Were all departures from standard conditions described in an exception report?	NA	
R2	O, I	**Sample and quality control (QC) identification**		
	I	Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	Yes	
	I	Are all laboratory ID numbers cross-referenced to the corresponding QC data?	Yes	
R3	O, I	**Test reports**		
	I	Were all samples prepared and analyzed within holding times?	Yes	
	I	Other than those results < MQL, were all other raw values bracketed by calibration standards?	NA	
	I	Were calculations checked by a peer or supervisor?	Yes	
	I	Were all analyte identifications checked by a peer or supervisor?	Yes	
	I	Were sample quantitation limits reported for all analytes not detected?	Yes	
	I	Were all results for soil and sediment samples reported on a dry weight basis?	NA	
	I	Was % moisture (or solids) reported for all soil and sediment samples?	NA	
	I	If required for the project, TICs reported?	NA	
R4	O	**Surrogate recovery data**		
	I	Were surrogates added prior to extraction?	NA	
	I	Were surrogate percent recoveries in all samples within the laboratory QC limits?	NA	
R5	O, I	**Test reports/summary forms for blank samples**		
	I	Were appropriate type(s) of blanks analyzed?	Yes	
	I	Were blanks analyzed at the appropriate frequency?	Yes	

TDS Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
	I	Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	Yes	
	I	Were blank concentrations < MQL?	Yes	
R6	O, I	**Laboratory control samples (LCS):**		
	I	Were all COCs included in the LCS?	Yes	
	I	Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	Yes	
	I	Were LCSs analyzed at the required frequency?	Yes	
	I	Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	Yes	
	I	Was the LCSD RPD within QC limits?	Yes	
R7	O, I	**Matrix spike (MS) and matrix spike duplicate (MSD) data**		
	I	Were the project/method specified analytes included in the MS and MSD?	NA	
	I	Were MS/MSD analyzed at the appropriate frequency?	NA	
	I	Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	NA	
	I	Were MS/MSD RPDs within laboratory QC limits?	NA	
R8	O, I	**Analytical duplicate data**		
	I	Were appropriate analytical duplicates analyzed for each matrix?	Yes	
	I	Were analytical duplicates analyzed at the appropriate frequency?	Yes	
	I	Were RPDs or relative standard deviations within the laboratory QC limits?	No	P1
R9	O, I	**Method quantitation limits (MQLs):**		
	I	Are the MQLs for each method analyte included in the laboratory data package?	Yes	
	I	Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	Yes	
	I	Are unadjusted MQLs included in the laboratory data package?	Yes	
R10	O, I	**Other problems/anomalies**		
	I	Are all known problems/anomalies/special conditions noted in this LRC and ER?	Yes	
	I	Were all necessary corrective actions performed for the reported data?	Yes	
	I	Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	Yes	

TDS Laboratory Review Checklist

Table 2. Supporting Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Power Station

Reviewer Name: Sandra Williams

LRC Date: 9/22/2025

Laboratory Job Number: 252320

Prep Batch Number(s): QC2509060

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S1	O, I	**Initial calibration (ICAL)**		
	I	Were response factors and/or relative response factors for each analyte within QC limits?	NA	
	I	Were percent RSDs or correlation coefficient criteria met?	NA	
	I	Was the number of standards recommended in the method used for all analytes?	NA	
	I	Were all points generated between the lowest and highest standard used to calculate the curve?	NA	
	I	Are ICAL data available for all instruments used?	NA	
	I	Has the initial calibration curve been verified using an appropriate second source standard?	NA	
S2	O, I	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):**		
	I	Was the CCV analyzed at the method-required frequency?	NA	
	I	Were percent differences for each analyte within the method-required QC limits?	NA	
	I	Was the ICAL curve verified for each analyte?	NA	
	I	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	NA	
S3	O	**Mass spectral tuning:**		
	I	Was the appropriate compound for the method used for tuning?	NA	
	I	Were ion abundance data within the method-required QC limits?	NA	
S4	O	**Internal standards (IS):**		
	I	Were IS area counts and retention times within the method-required QC limits?	NA	
S5	O, I	**Raw data (NELAC section 1 appendix A glossary, and section 5.)**		
	I	Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Yes	
	I	Were data associated with manual integrations flagged on the raw data?	NA	

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S6	O	**Dual column confirmation**		
	I	Did dual column confirmation results meet the method-required QC?	NA	
S7	O	**Tentatively identified compounds (TICs):**		
	I	If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?	NA	
S8	I	**Interference Check Sample (ICS) results:**		
	I	Were percent recoveries within method QC limits?	NA	
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**		
	I	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	NA	
S10	O, I	**Method detection limit (MDL) studies**		
	I	Was a MDL study performed for each reported analyte?	Yes	
	I	Is the MDL either adjusted or supported by the analysis of DCSs?	Yes	
S11	O, I	**Proficiency test reports:**		
	I	Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Yes	
S12	O, I	**Standards documentation**		
	I	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Yes	
S13	O, I	**Compound/analyte identification procedures**		
	I	Are the procedures for compound/analyte identification documented?	Yes	
S14	O, I	**Demonstration of analyst competency (DOC)**		
	I	Was DOC conducted consistent with NELAC Chapter 5C?	Yes	
	I	Is documentation of the analyst's competency up-to-date and on file?	Yes	
S15	O, I	**Verification/validation documentation for methods (NELAC Chap 5n 5)**		
	I	Are all the methods used to generate the data documented, verified, and validated, where applicable?	Yes	
S16	O, I	**Laboratory standard operating procedures (SOPs):**		
	I	Are laboratory SOPs current and on file for each method performed?	Yes	

TDS Laboratory Review Checklist

Table 3. Exception Reports.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Power Station

Reviewer Name: Sandra Williams

LRC Date: 9/22/2025

Laboratory Job Number: 252320

Prep Batch Number(s): QC2509060

Exception Report No.	Description
P1	The precision between duplicate results was above acceptance limits.

[1] Items identified by the letter "R" must be available as a hard copy or as a .pdf file. Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

[2] O - organic analyses; I - inorganic analyses (including general chemistry constituents, when applicable).

[3] NA - Not applicable; NR - Not reviewed.

[4] Exception Report identification number; an Exception Report should be completed for an item if the result is "No" or "NR."

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 252347 **Customer: Welsh Power Station** **Date Reported: 10/10/2025**

Customer Sample ID: AD-8
Lab Number: 252347-001
Date Collected: 09/03/2025 11:31 EDT

Customer Description:
Preparation:
Date Received: 09/09/2025 12:05 EDT

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	0.02	µg/L	1	0.10	0.02	J1	GES	09/17/2025 10:26	EPA 200.8-1994, Rev. 5.4
Arsenic	0.22	µg/L	1	0.10	0.03		GES	09/17/2025 10:26	EPA 200.8-1994, Rev. 5.4
Barium	26.2	µg/L	1	0.20	0.05		GES	09/17/2025 10:26	EPA 200.8-1994, Rev. 5.4
Beryllium	<0.02	µg/L	1	0.05	0.02	U1	GES	09/17/2025 10:26	EPA 200.8-1994, Rev. 5.4
Boron	0.964	mg/L	1	0.050	0.006		GES	09/17/2025 10:26	EPA 200.8-1994, Rev. 5.4
Cadmium	0.023	µg/L	1	0.020	0.004		GES	09/17/2025 10:26	EPA 200.8-1994, Rev. 5.4
Calcium	20.7	mg/L	1	0.10	0.02		GES	09/17/2025 10:26	EPA 200.8-1994, Rev. 5.4
Chromium	0.21	µg/L	1	0.30	0.07	J1	GES	09/17/2025 10:26	EPA 200.8-1994, Rev. 5.4
Cobalt	6.66	µg/L	1	0.03	0.01		GES	09/17/2025 10:26	EPA 200.8-1994, Rev. 5.4
Lead	<0.05	µg/L	1	0.20	0.05	U1	GES	09/17/2025 10:26	EPA 200.8-1994, Rev. 5.4
Lithium	0.0538	mg/L	1	0.00030	0.00007		GES	09/17/2025 10:26	EPA 200.8-1994, Rev. 5.4
Mercury	5	ng/L	10	5	2		JLD	10/03/2025 00:00	EPA 1631E-2002
Molybdenum	<0.05	µg/L	1	0.50	0.05	U1	GES	09/17/2025 10:26	EPA 200.8-1994, Rev. 5.4
Selenium	0.04	µg/L	1	0.50	0.04	J1	GES	09/17/2025 10:26	EPA 200.8-1994, Rev. 5.4
Thallium	0.13	µg/L	1	0.20	0.02	J1	GES	09/17/2025 10:26	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method
Radium-226	0.57	pCi/L	0.22	0.52		ST	09/15/2025 14:05	SW-846 9315-1986, Rev. 0
Carrier Recovery	87.8	%						
Radium-228	0.76	pCi/L	0.17	0.53	L1, P2	ST	09/19/2025 11:31	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	88.0	%						

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 252347 **Customer: Welsh Power Station** **Date Reported: 10/10/2025**

Customer Sample ID: AD-9
Lab Number: 252347-002
Date Collected: 09/03/2025 10:28 EDT

Customer Description:
Preparation:
Date Received: 09/09/2025 12:05 EDT

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	09/17/2025 10:31	EPA 200.8-1994, Rev. 5.4
Arsenic	0.61	µg/L	1	0.10	0.03		GES	09/17/2025 10:31	EPA 200.8-1994, Rev. 5.4
Barium	48.7	µg/L	1	0.20	0.05		GES	09/17/2025 10:31	EPA 200.8-1994, Rev. 5.4
Beryllium	1.00	µg/L	1	0.05	0.02		GES	09/17/2025 10:31	EPA 200.8-1994, Rev. 5.4
Boron	0.124	mg/L	1	0.050	0.006		GES	09/17/2025 10:31	EPA 200.8-1994, Rev. 5.4
Cadmium	0.256	µg/L	1	0.020	0.004		GES	09/17/2025 10:31	EPA 200.8-1994, Rev. 5.4
Calcium	79.2	mg/L	1	0.10	0.02		GES	09/17/2025 10:31	EPA 200.8-1994, Rev. 5.4
Chromium	0.56	µg/L	1	0.30	0.07		GES	09/17/2025 10:31	EPA 200.8-1994, Rev. 5.4
Cobalt	20.1	µg/L	1	0.03	0.01		GES	09/17/2025 10:31	EPA 200.8-1994, Rev. 5.4
Lead	0.09	µg/L	1	0.20	0.05	J1	GES	09/17/2025 10:31	EPA 200.8-1994, Rev. 5.4
Lithium	0.444	mg/L	1	0.00030	0.00007		GES	09/17/2025 10:31	EPA 200.8-1994, Rev. 5.4
Mercury	9	ng/L	10	5	2		JLD	10/03/2025 00:00	EPA 1631E-2002
Molybdenum	<0.05	µg/L	1	0.50	0.05	U1	GES	09/17/2025 10:31	EPA 200.8-1994, Rev. 5.4
Selenium	0.72	µg/L	1	0.50	0.04		GES	09/17/2025 10:31	EPA 200.8-1994, Rev. 5.4
Thallium	0.19	µg/L	1	0.20	0.02	J1	GES	09/17/2025 10:31	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method
Radium-226	1.56	pCi/L	0.34	0.61		ST	09/15/2025 14:05	SW-846 9315-1986, Rev. 0
Carrier Recovery	92.3	%						
Radium-228	0.99	pCi/L	0.16	0.49	L1, P2	ST	09/19/2025 11:31	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	81.1	%						

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 252347 **Customer: Welsh Power Station** **Date Reported: 10/10/2025**

Customer Sample ID: AD-15
Lab Number: 252347-003
Date Collected: 09/02/2025 11:12 EDT

Customer Description:
Preparation:
Date Received: 09/09/2025 12:05 EDT

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	0.03	µg/L	1	0.10	0.02	J1	GES	09/17/2025 10:37	EPA 200.8-1994, Rev. 5.4
Arsenic	2.48	µg/L	1	0.10	0.03		GES	09/17/2025 10:37	EPA 200.8-1994, Rev. 5.4
Barium	72.7	µg/L	1	0.20	0.05		GES	09/17/2025 10:37	EPA 200.8-1994, Rev. 5.4
Beryllium	0.16	µg/L	1	0.05	0.02		GES	09/17/2025 10:37	EPA 200.8-1994, Rev. 5.4
Boron	0.106	mg/L	1	0.050	0.006		GES	09/17/2025 10:37	EPA 200.8-1994, Rev. 5.4
Cadmium	0.012	µg/L	1	0.020	0.004	J1	GES	09/17/2025 10:37	EPA 200.8-1994, Rev. 5.4
Calcium	2.98	mg/L	1	0.10	0.02		GES	09/17/2025 10:37	EPA 200.8-1994, Rev. 5.4
Chromium	0.33	µg/L	1	0.30	0.07		GES	09/17/2025 10:37	EPA 200.8-1994, Rev. 5.4
Cobalt	2.86	µg/L	1	0.03	0.01		GES	09/17/2025 10:37	EPA 200.8-1994, Rev. 5.4
Lead	0.11	µg/L	1	0.20	0.05	J1	GES	09/17/2025 10:37	EPA 200.8-1994, Rev. 5.4
Lithium	0.00317	mg/L	1	0.00030	0.00007		GES	09/17/2025 10:37	EPA 200.8-1994, Rev. 5.4
Mercury	4	ng/L	10	5	2	J1	JLD	10/03/2025 00:00	EPA 1631E-2002
Molybdenum	<0.05	µg/L	1	0.50	0.05	U1	GES	09/17/2025 10:37	EPA 200.8-1994, Rev. 5.4
Selenium	0.47	µg/L	1	0.50	0.04	J1	GES	09/17/2025 10:37	EPA 200.8-1994, Rev. 5.4
Thallium	0.06	µg/L	1	0.20	0.02	J1	GES	09/17/2025 10:37	EPA 200.8-1994, Rev. 5.4

Radiochemistry

Parameter	Result	Units	UNC*(+/-)	MDA*	Data Qualifiers	Analyst	Analysis Date	Method
Radium-226	0.80	pCi/L	0.22	0.40		ST	09/15/2025 14:05	SW-846 9315-1986, Rev. 0
Carrier Recovery	103	%						
Radium-228	1.43	pCi/L	0.13	0.35	L1, P2	ST	09/19/2025 11:31	SW-846 9320-2014, Rev. 1.0
Carrier Recovery	97.5	%						

* The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Water Analysis Report

Job ID: 252347 **Customer: Welsh Power Station** **Date Reported: 10/10/2025**

Customer Sample ID: DUPLICATE- PBAP
Customer Description:
Lab Number: 252347-004
Preparation:
Date Collected: 09/02/2025 13:59 EDT
Date Received: 09/09/2025 12:05 EDT

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	09/17/2025 10:42	EPA 200.8-1994, Rev. 5.4
Arsenic	2.42	µg/L	1	0.10	0.03		GES	09/17/2025 10:42	EPA 200.8-1994, Rev. 5.4
Barium	68.7	µg/L	1	0.20	0.05		GES	09/17/2025 10:42	EPA 200.8-1994, Rev. 5.4
Beryllium	0.16	µg/L	1	0.05	0.02		GES	09/17/2025 10:42	EPA 200.8-1994, Rev. 5.4
Boron	0.097	mg/L	1	0.050	0.006		GES	09/17/2025 10:42	EPA 200.8-1994, Rev. 5.4
Cadmium	0.010	µg/L	1	0.020	0.004	J1	GES	09/17/2025 10:42	EPA 200.8-1994, Rev. 5.4
Calcium	2.80	mg/L	1	0.10	0.02		GES	09/17/2025 10:42	EPA 200.8-1994, Rev. 5.4
Chromium	0.28	µg/L	1	0.30	0.07	J1	GES	09/17/2025 10:42	EPA 200.8-1994, Rev. 5.4
Cobalt	2.73	µg/L	1	0.03	0.01		GES	09/17/2025 10:42	EPA 200.8-1994, Rev. 5.4
Lead	0.11	µg/L	1	0.20	0.05	J1	GES	09/17/2025 10:42	EPA 200.8-1994, Rev. 5.4
Lithium	0.00306	mg/L	1	0.00030	0.00007		GES	09/17/2025 10:42	EPA 200.8-1994, Rev. 5.4
Mercury	3	ng/L	10	5	2	J1	JLD	10/03/2025 00:00	EPA 1631E-2002
Molybdenum	<0.05	µg/L	1	0.50	0.05	U1	GES	09/17/2025 10:42	EPA 200.8-1994, Rev. 5.4
Selenium	0.44	µg/L	1	0.50	0.04	J1	GES	09/17/2025 10:42	EPA 200.8-1994, Rev. 5.4
Thallium	0.05	µg/L	1	0.20	0.02	J1	GES	09/17/2025 10:42	EPA 200.8-1994, Rev. 5.4

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 252347 **Customer: Welsh Power Station** **Date Reported: 10/10/2025**

Customer Sample ID: EQUIP BLANK- PBAP
Lab Number: 252347-005
Date Collected: 09/02/2025 10:36 EDT

Customer Description:
Preparation:
Date Received: 09/09/2025 12:05 EDT

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	09/17/2025 10:47	EPA 200.8-1994, Rev. 5.4
Arsenic	<0.03	µg/L	1	0.10	0.03	U1	GES	09/17/2025 10:47	EPA 200.8-1994, Rev. 5.4
Barium	<0.05	µg/L	1	0.20	0.05	U1	GES	09/17/2025 10:47	EPA 200.8-1994, Rev. 5.4
Beryllium	<0.02	µg/L	1	0.05	0.02	U1	GES	09/17/2025 10:47	EPA 200.8-1994, Rev. 5.4
Boron	<0.006	mg/L	1	0.050	0.006	U1	GES	09/17/2025 10:47	EPA 200.8-1994, Rev. 5.4
Cadmium	<0.004	µg/L	1	0.020	0.004	U1	GES	09/17/2025 10:47	EPA 200.8-1994, Rev. 5.4
Calcium	<0.02	mg/L	1	0.10	0.02	U1	GES	09/17/2025 10:47	EPA 200.8-1994, Rev. 5.4
Chromium	0.31	µg/L	1	0.30	0.07		GES	09/17/2025 10:47	EPA 200.8-1994, Rev. 5.4
Cobalt	<0.01	µg/L	1	0.03	0.01	U1	GES	09/17/2025 10:47	EPA 200.8-1994, Rev. 5.4
Lead	<0.05	µg/L	1	0.20	0.05	U1	GES	09/17/2025 10:47	EPA 200.8-1994, Rev. 5.4
Lithium	<0.00007	mg/L	1	0.00030	0.00007	U1	GES	09/17/2025 10:47	EPA 200.8-1994, Rev. 5.4
Mercury	2	ng/L	10	5	2	J1	JLD	10/03/2025 00:00	EPA 1631E-2002
Molybdenum	<0.05	µg/L	1	0.50	0.05	U1	GES	09/17/2025 10:47	EPA 200.8-1994, Rev. 5.4
Selenium	<0.04	µg/L	1	0.50	0.04	U1	GES	09/17/2025 10:47	EPA 200.8-1994, Rev. 5.4
Thallium	<0.02	µg/L	1	0.20	0.02	U1	GES	09/17/2025 10:47	EPA 200.8-1994, Rev. 5.4

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 252347 **Customer: Welsh Power Station** **Date Reported: 10/10/2025**

Customer Sample ID: FIELD BLANK-PBAP
Lab Number: 252347-006
Date Collected: 09/02/2025 10:39 EDT

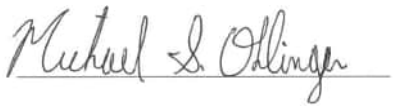
Customer Description:
Preparation:
Date Received: 09/09/2025 12:05 EDT

Metals

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Antimony	<0.02	µg/L	1	0.10	0.02	U1	GES	09/17/2025 10:53	EPA 200.8-1994, Rev. 5.4
Arsenic	<0.03	µg/L	1	0.10	0.03	U1	GES	09/17/2025 10:53	EPA 200.8-1994, Rev. 5.4
Barium	<0.05	µg/L	1	0.20	0.05	U1	GES	09/17/2025 10:53	EPA 200.8-1994, Rev. 5.4
Beryllium	<0.02	µg/L	1	0.05	0.02	U1	GES	09/17/2025 10:53	EPA 200.8-1994, Rev. 5.4
Boron	<0.006	mg/L	1	0.050	0.006	U1	GES	09/17/2025 10:53	EPA 200.8-1994, Rev. 5.4
Cadmium	<0.004	µg/L	1	0.020	0.004	U1	GES	09/17/2025 10:53	EPA 200.8-1994, Rev. 5.4
Calcium	<0.02	mg/L	1	0.10	0.02	U1	GES	09/17/2025 10:53	EPA 200.8-1994, Rev. 5.4
Chromium	0.31	µg/L	1	0.30	0.07		GES	09/17/2025 10:53	EPA 200.8-1994, Rev. 5.4
Cobalt	0.01	µg/L	1	0.03	0.01	J1	GES	09/17/2025 10:53	EPA 200.8-1994, Rev. 5.4
Lead	<0.05	µg/L	1	0.20	0.05	U1	GES	09/17/2025 10:53	EPA 200.8-1994, Rev. 5.4
Lithium	<0.00007	mg/L	1	0.00030	0.00007	U1	GES	09/17/2025 10:53	EPA 200.8-1994, Rev. 5.4
Molybdenum	<0.05	µg/L	1	0.50	0.05	U1	GES	09/17/2025 10:53	EPA 200.8-1994, Rev. 5.4
Selenium	0.05	µg/L	1	0.50	0.04	J1	GES	09/17/2025 10:53	EPA 200.8-1994, Rev. 5.4
Thallium	<0.02	µg/L	1	0.20	0.02	U1	GES	09/17/2025 10:53	EPA 200.8-1994, Rev. 5.4

Report Verification

This report and the above data have been confirmed by the following analyst.



Michael Ohlinger, Chemist
Email: msohlinger@aep.com
Phone: 614-836-4184
Audinet: 8-210-4184

THIS TEST REPORT RELATES ONLY TO THE ITEMS TESTED AND SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT WRITTEN APPROVAL OF THE LABORATORY. ALL TEST RESULTS MEET ALL OF THE REQUIREMENTS OF THE ACCREDITING AUTHORITY, UNLESS OTHERWISE NOTED. ALL TIMES LISTED ARE IN THE EASTERN TIME ZONE.

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 252347 **Customer: Welsh Power Station** **Date Reported: 10/10/2025**

Data Qualifer Legend

J1 - Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.
U1 - Not detected at or below method detection limit (MDL).
L1 - The associated laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) recovery was outside acceptance limits.
P2 - The precision on the laboratory control sample duplicate (LCSD) was above acceptance limits.

Chain of Custody Record

Program: Coal Combustion Residuals (CCR)

Dolan Chemical Laboratory (DCL)
4001 Bixby Road
Groveport, Ohio 43125

Contacts: Michael Ohlinger (614-836-4184)

Project Name: Welsh PBAP
Contact Name: Pryce Warren
Contact Phone: (325) 310-6668
Sampler(s): Matt Hamilton Brad Bates

Analysis Turnaround Time (in Calendar Days) Routine (28 days)

Site Contact:

Date:

For Lab Use Only:
COC/Order #: 257347

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Sampler(s) Initials	250 mL bottle, pH<2, HNO_3 B, Ca, Li, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Mo, Se, TL	Field-filter 500 mL bottle, then pH<2, HNO_3 dissolved Fe and Mn	1 L bottle, Cool, 0-6°C TDS, F, Cl, SO_4	Three (six every 10th*) 1 L bottles, pH<2, HNO_3 Ra-226, Ra-228	250 mL Glass bottle, HCL**, pH<2 Hg			Sample Specific Notes:
AD-8	9/3/2025	1031	G	GW	5		X			X	X			TG-32 needed
AD-9	9/3/2025	928	G	GW	5		X			X	X			
AD-15	9/2/2025	1012	G	GW	8		X			X	X			
DUPLICATE - PBAP	9/2/2025	1259	G	GW	2		X				X			
EQUIPMENT BLANK - PBAP	9/2/2025	936	G	GW	2		X				X			
FIELD BLANK - PBAP	9/2/2025	939	G	GW	1		X							
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____; F= filter in field							4	F4	1	4	3			

** Six 1L Bottles must be collected for Radium for every 10th sample.*

Special Instructions/QC Requirements & Comments:

Relinquished by: Matt Hamilton	Company: Eagle	Date/Time: 9-5-25 1230	Received by:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Date/Time: 09/09/25 1105

WATER & WASTE SAMPLE RECEIPT FORM

Form SOP-7102 Sample Receipt Form Rev.10, 01/03/25

Package Type

Cooler Box Bag Envelope

Delivery Type

UPS FedEX USPS

Other UPS

Plant/Customer Welsh **Total # of Containers RECEIVED in Job:** 23

Opened By KMS/GGM/AML

Date/Time 09/09/25 1705

Were all required temperatures, per BN-water-900, T≤6°C *w/o sample freezing*? Y / N or N/A

Initial/Date: NA on ice / no ice

If No, specify each deviation(s) on back of form. (IR Gun Ser# 240093386, *Expir.* 01/31/2026)

Was container in good condition? Y / N Comments

Was Chain of Custody received? Y / N Comments

Requested turnaround: Routine If **RUSH**, who was notified?

pH (15 min) Cr^{+6} (pres) (24 hr) NO_2 or NO_3 (48 hr) *ortho*-PO_4 (48 hr) Hg-diss (pres) (48 hr)

Were pH requirements met for required samples, per BN-water-900? Y / N or N/A

Initial/Date: AMR 9-9-25

***pH paper*:** mfr LabRat ,PN LRS-4801 ,LOT# X000RWDG21 ,EXPIR DATE 09/30/2026

**** Note changes to pH paper in comments below**

Was Add'l Preservative needed? Y / N If Yes: By whom & when: NA (See Prep Book)

(Dissolved) Is sample filtration requested? Y / N Comments NA (See Prep Book)

Was COC filled out properly? Y / N Comments

Were samples labeled properly? Y / N Comments

Were correct containers used? Y / N Comments

Was the customer contacted? If Yes: Person Contacted:

Lab ID# 252347 Initial & Date & Time : NA

Logged by KMS Comments:

(Record Test Count on back of form)

Total # of Containers LISTED on COC: 23

WATER & WASTE SAMPLE RECEIPT FORM (CONT)

Form SOP-7102 Sample Receipt Form Rev.10, 01/03/25

REMINDER: Document the pertinent sample integrity information and deviations in sample receipt (as noted above) in the Sample or Job "Comments" field in the LIMS. **Comments below**:
i.e. Mark "LF" if needs Lab filtered, Temperature or Preservative deviation, Preserved upon arrival , etc.

JOB # : 252347 **Initial/ Date:** 09/09/25 **Peer Review Initial/ Date:** AMR 9.10.25

Login Test Count from COC	LIMS Sample ID (or COC Sample Name)	Comments /Nonconformities	Peer Review Test Count from COC
17	252347 -001		17
17	-002		17
17	-003	N/A	17
15	-004		15
15	-005		15
14	-006		14

Municipal Solid Waste Laboratory Review Checklist

This data package consists of:

- [x] This signature page, and the laboratory review checklist consisting of Table 1, Reportable Data (which includes the reportable data identified on this page), Table 2, Supporting Data, and Table 3, Exception Reports.
- [x] R1 Field chain-of-custody documentation
- [x] R2 Sample identification cross-reference
- [x] R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - (a) Items specified in NELAC Chapter 5 for reporting results, e.g., Section 5.5.10 in 2003 NELAC Standard
  - (b) Dilution factors
  - (c) Preparation methods
  - (d) Cleanup methods
  - (e) If required for the project, tentatively identified compounds (TICs)
- [x] R4 Surrogate recovery data including:
  - (a) Calculated recovery (%R)
  - (b) The laboratory's surrogate QC limits
- [x] R5 Test reports/summary forms for blank samples
- [x] R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - (a) LCS spiking amounts
  - (b) Calculated %R for each analyte
  - (c) The laboratory's LCS QC limits
- [x] R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - (a) Samples associated with the MS/MSD clearly identified
  - (b) MS/MSD spiking amounts
  - (c) Concentration of each MS/MSD analyte measured in the parent and spiked samples
  - (d) Calculated %Rs and relative percent differences (RPDs)
  - (e) The laboratory's MS/MSD QC limits
- [x] R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - (a) The amount of analyte measured in the duplicate
  - (b) The calculated RPD
  - (c) The laboratory's QC limits for analytical duplicates
- [x] R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix
- [x] R10 Other problems or anomalies
- [x] The Exception Report for every item for which the result is "No" or "NR" (Not Reviewed)

Release Statement: I am responsible for the release of this laboratory data package. This data package as been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, if applicable: (●) This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Tamisha T. Palmer	Tami T. Palmer	Chemical Technician	10/02/2025
Name (printed)	Signature	Official Title	Date

Radium Laboratory Review Checklist

Table 1. Reportable Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Power Plant

Reviewer Name: Tamisha T. Palmer

LRC Date: 10/02/2025

Laboratory Job Number: 252347, 252366, 252368

Prep Batch Number(s): PB25091202

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
R1	O, I	**Chain-of-custody (COC)**		
	I	Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	Yes	
	I	Were all departures from standard conditions described in an exception report?	Yes	
R2	O, I	**Sample and quality control (QC) identification**		
	I	Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	Yes	
	I	Are all laboratory ID numbers cross-referenced to the corresponding QC data?	Yes	
R3	O, I	**Test reports**		
	I	Were all samples prepared and analyzed within holding times?	Yes	
	I	Other than those results < MQL, were all other raw values bracketed by calibration standards?	NA	
	I	Were calculations checked by a peer or supervisor?	Yes	
	I	Were all analyte identifications checked by a peer or supervisor?	Yes	
	I	Were sample quantitation limits reported for all analytes not detected?	Yes	
	I	Were all results for soil and sediment samples reported on a dry weight basis?	NA	
	I	Was % moisture (or solids) reported for all soil and sediment samples?	NA	
	I	If required for the project, TICs reported?	NA	
R4	O	**Surrogate recovery data**		
	I	Were surrogates added prior to extraction?	NA	
	I	Were surrogate percent recoveries in all samples within the laboratory QC limits?	NA	
R5	O, I	**Test reports/summary forms for blank samples**		
	I	Were appropriate type(s) of blanks analyzed?	Yes	
	I	Were blanks analyzed at the appropriate frequency?	Yes	

Radium Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
	I	Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	Yes	
	I	Were blank concentrations < MQL?	Yes	
R6	O, I	**Laboratory control samples (LCS):**		
	I	Were all COCs included in the LCS?	Yes	
	I	Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	Yes	
	I	Were LCSs analyzed at the required frequency?	Yes	
	I	Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	No	ER1
	I	Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	Yes	
	I	Was the LCSD RPD within QC limits?	Yes	
R7	O, I	**Matrix spike (MS) and matrix spike duplicate (MSD) data**		
	I	Were the project/method specified analytes included in the MS and MSD?	NA	
	I	Were MS/MSD analyzed at the appropriate frequency?	NA	
	I	Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	NA	
	I	Were MS/MSD RPDs within laboratory QC limits?	NA	
R8	O, I	**Analytical duplicate data**		
	I	Were appropriate analytical duplicates analyzed for each matrix?	Yes	
	I	Were analytical duplicates analyzed at the appropriate frequency?	Yes	
	I	Were RPDs or relative standard deviations within the laboratory QC limits?	Yes	
R9	O, I	**Method quantitation limits (MQLs):**		
	I	Are the MQLs for each method analyte included in the laboratory data package?	Yes	
	I	Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	Yes	
	I	Are unadjusted MQLs included in the laboratory data package?	Yes	
R10	O, I	**Other problems/anomalies**		
	I	Are all known problems/anomalies/special conditions noted in this LRC and ER?	Yes	
	I	Were all necessary corrective actions performed for the reported data?	Yes	
	I	Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	Yes	

Table 2. Supporting Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Power Plant

Reviewer Name: Tamisha T. Palmer

LRC Date: 10/02/2025

Laboratory Job Number: 252347, 252366, 252368

Prep Batch Number(s): PB25091202

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S1	O, I	**Initial calibration (ICAL)**		
	I	Were response factors and/or relative response factors for each analyte within QC limits?	NA	
	I	Were percent RSDs or correlation coefficient criteria met?	Yes	
	I	Was the number of standards recommended in the method used for all analytes?	Yes	
	I	Were all points generated between the lowest and highest standard used to calculate the curve?	NA	
	I	Are ICAL data available for all instruments used?	Yes	
	I	Has the initial calibration curve been verified using an appropriate second source standard?	Yes	
S2	O, I	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):**		
	I	Was the CCV analyzed at the method-required frequency?	NA	
	I	Were percent differences for each analyte within the method-required QC limits?	NA	
	I	Was the ICAL curve verified for each analyte?	NA	
	I	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	NA	
S3	O	**Mass spectral tuning:**		
	I	Was the appropriate compound for the method used for tuning?	NA	
	I	Were ion abundance data within the method-required QC limits?	NA	
S4	O	**Internal standards (IS):**		
	I	Were IS area counts and retention times within the method-required QC limits?	NA	
S5	O, I	**Raw data (NELAC section 1 appendix A glossary, and section 5.)**		
	I	Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Yes	
	I	Were data associated with manual integrations flagged on the raw data?	NA	

Radium Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S6	O	**Dual column confirmation**		
	I	Did dual column confirmation results meet the method-required QC?	NA	
S7	O	**Tentatively identified compounds (TICs):**		
	I	If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?	NA	
S8	I	**Interference Check Sample (ICS) results:**		
	I	Were percent recoveries within method QC limits?	NA	
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**		
	I	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	NA	
S10	O, I	**Method detection limit (MDL) studies**		
	I	Was a MDL study performed for each reported analyte?	Yes	
	I	Is the MDL either adjusted or supported by the analysis of DCSs?	Yes	
S11	O, I	**Proficiency test reports:**		
	I	Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Yes	
S12	O, I	**Standards documentation**		
	I	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Yes	
S13	O, I	**Compound/analyte identification procedures**		
	I	Are the procedures for compound/analyte identification documented?	Yes	
S14	O, I	**Demonstration of analyst competency (DOC)**		
	I	Was DOC conducted consistent with NELAC Chapter 5C?	Yes	
	I	Is documentation of the analyst's competency up-to-date and on file?	Yes	
S15	O, I	**Verification/validation documentation for methods (NELAC Chap 5n 5)**		
	I	Are all the methods used to generate the data documented, verified, and validated, where applicable?	Yes	
S16	O, I	**Laboratory standard operating procedures (SOPs):**		
	I	Are laboratory SOPs current and on file for each method performed?	Yes	

Table 3. Exception Reports.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Power Plant

Reviewer Name: Tamisha T. Palmer

LRC Date: 10/02/2025

Laboratory Job Number: 252347, 252366, 252368

Prep Batch Number(s): PB25091202

Exception Report No.	Description
ER1	%Recovery exceeded 110% criteria for both LCS and LCSD

[1] Items identified by the letter "R" must be available as a hard copy or as a .pdf file. Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

[2] O - organic analyses; I - inorganic analyses (including general chemistry constituents, when applicable).

[3] NA - Not applicable; NR - Not reviewed.

[4] Exception Report identification number; an Exception Report should be completed for an item if the result is "No" or "NR."

Municipal Solid Waste Laboratory Review Checklist

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- [x] R2 Sample identification cross-reference
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  - (a) Items specified in NELAC Chapter 5 for reporting results, e.g., Section 5.5.10 in 2003 NELAC Standard
  - (b) Dilution factors
  - (c) Preparation methods
  - (d) Cleanup methods
  - (e) If required for the project, tentatively identified compounds (TICs)
- [NA] R4 Surrogate recovery data including:
  - (a) Calculated recovery (%R)
  - (b) The laboratory's surrogate QC limits
- [x] R5 Test reports/summary forms for blank samples
- [x] R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - (a) LCS spiking amounts
  - (b) Calculated %R for each analyte
  - (c) The laboratory's LCS QC limits
- [x] R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - (a) Samples associated with the MS/MSD clearly identified
  - (b) MS/MSD spiking amounts
  - (c) Concentration of each MS/MSD analyte measured in the parent and spiked samples
  - (d) Calculated %Rs and relative percent differences (RPDs)
  - (e) The laboratory's MS/MSD QC limits
- [x] R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - (a) The amount of analyte measured in the duplicate
  - (b) The calculated RPD
  - (c) The laboratory's QC limits for analytical duplicates
- [x] R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix
- [x] R10 Other problems or anomalies
- [x] The Exception Report for every item for which the result is "No" or "NR" (Not Reviewed)

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Check, if applicable: (●) This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Tamisha T. Palmer	Tamisha T. Palmer	Chemical Technician Principal	10/02/2025
Name (printed)	Signature	Official Title	Date

Radium Laboratory Review Checklist

Table 1. Reportable Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Power Plant

Reviewer Name: Tamisha Palmer

LRC Date: 10/02/2025

Laboratory Job Number: 252347, 252366, 252368, 252369

Prep Batch Number(s): PB25091101

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
R1	O, I	**Chain-of-custody (COC)**		
	I	Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	Yes	
	I	Were all departures from standard conditions described in an exception report?	Yes	
R2	O, I	**Sample and quality control (QC) identification**		
	I	Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	Yes	
	I	Are all laboratory ID numbers cross-referenced to the corresponding QC data?	Yes	
R3	O, I	**Test reports**		
	I	Were all samples prepared and analyzed within holding times?	Yes	
	I	Other than those results < MQL, were all other raw values bracketed by calibration standards?	NA	
	I	Were calculations checked by a peer or supervisor?	Yes	
	I	Were all analyte identifications checked by a peer or supervisor?	Yes	
	I	Were sample quantitation limits reported for all analytes not detected?	Yes	
	I	Were all results for soil and sediment samples reported on a dry weight basis?	NA	
	I	Was % moisture (or solids) reported for all soil and sediment samples?	NA	
	I	If required for the project, TICs reported?	NA	
R4	O	**Surrogate recovery data**		
	I	Were surrogates added prior to extraction?	NA	
	I	Were surrogate percent recoveries in all samples within the laboratory QC limits?	NA	
R5	O, I	**Test reports/summary forms for blank samples**		
	I	Were appropriate type(s) of blanks analyzed?	Yes	
	I	Were blanks analyzed at the appropriate frequency?	Yes	

Radium Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
	I	Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	Yes	
	I	Were blank concentrations < MQL?	Yes	
R6	O, I	**Laboratory control samples (LCS):**		
	I	Were all COCs included in the LCS?	Yes	
	I	Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	Yes	
	I	Were LCSs analyzed at the required frequency?	Yes	
	I	Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	~~No~~ Yes TD 10/29/25	~~ERT~~ TD 10/29/25 error
	I	Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	Yes	
	I	Was the LCSD RPD within QC limits?	NO ~~Yes~~ 10/29/25	ERI
R7	O, I	**Matrix spike (MS) and matrix spike duplicate (MSD) data**		
	I	Were the project/method specified analytes included in the MS and MSD?	Yes	
	I	Were MS/MSD analyzed at the appropriate frequency?	Yes	
	I	Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Were MS/MSD RPDs within laboratory QC limits?	Yes	
R8	O, I	**Analytical duplicate data**		
	I	Were appropriate analytical duplicates analyzed for each matrix?	NA	
	I	Were analytical duplicates analyzed at the appropriate frequency?	NA	
	I	Were RPDs or relative standard deviations within the laboratory QC limits?	NA	
R9	O, I	**Method quantitation limits (MQLs):**		
	I	Are the MQLs for each method analyte included in the laboratory data package?	Yes	
	I	Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	Yes	
	I	Are unadjusted MQLs included in the laboratory data package?	Yes	
R10	O, I	**Other problems/anomalies**		
	I	Are all known problems/anomalies/special conditions noted in this LRC and ER?	Yes	
	I	Were all necessary corrective actions performed for the reported data?	Yes	
	I	Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	Yes	

Table 2. Supporting Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Power Plant

Reviewer Name: Tamisha Palmer

LRC Date: 10/02/2025

Laboratory Job Number: 252347, 252366, 252368, 252369

Prep Batch Number(s): PB25091101

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S1	O, I	**Initial calibration (ICAL)**		
	I	Were response factors and/or relative response factors for each analyte within QC limits?	NA	
	I	Were percent RSDs or correlation coefficient criteria met?	Yes	
	I	Was the number of standards recommended in the method used for all analytes?	Yes	
	I	Were all points generated between the lowest and highest standard used to calculate the curve?	NA	
	I	Are ICAL data available for all instruments used?	Yes	
	I	Has the initial calibration curve been verified using an appropriate second source standard?	Yes	
S2	O, I	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):**		
	I	Was the CCV analyzed at the method-required frequency?	NA	
	I	Were percent differences for each analyte within the method-required QC limits?	NA	
	I	Was the ICAL curve verified for each analyte?	NA	
	I	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	NA	
S3	O	**Mass spectral tuning:**		
	I	Was the appropriate compound for the method used for tuning?	NA	
	I	Were ion abundance data within the method-required QC limits?	NA	
S4	O	**Internal standards (IS):**		
	I	Were IS area counts and retention times within the method-required QC limits?	NA	
S5	O, I	**Raw data (NELAC section 1 appendix A glossary, and section 5.)**		
	I	Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Yes	
	I	Were data associated with manual integrations flagged on the raw data?	NA	

Radium Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S6	O	**Dual column confirmation**		
	I	Did dual column confirmation results meet the method-required QC?	NA	
S7	O	**Tentatively identified compounds (TICs):**		
	I	If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?	NA	
S8	I	**Interference Check Sample (ICS) results:**		
	I	Were percent recoveries within method QC limits?	NA	
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**		
	I	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	NA	
S10	O, I	**Method detection limit (MDL) studies**		
	I	Was a MDL study performed for each reported analyte?	Yes	
	I	Is the MDL either adjusted or supported by the analysis of DCSs?	Yes	
S11	O, I	**Proficiency test reports:**		
	I	Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Yes	
S12	O, I	**Standards documentation**		
	I	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Yes	
S13	O, I	**Compound/analyte identification procedures**		
	I	Are the procedures for compound/analyte identification documented?	Yes	
S14	O, I	**Demonstration of analyst competency (DOC)**		
	I	Was DOC conducted consistent with NELAC Chapter 5C?	Yes	
	I	Is documentation of the analyst's competency up-to-date and on file?	Yes	
S15	O, I	**Verification/validation documentation for methods (NELAC Chap 5n 5)**		
	I	Are all the methods used to generate the data documented, verified, and validated, where applicable?	Yes	
S16	O, I	**Laboratory standard operating procedures (SOPs):**		
	I	Are laboratory SOPs current and on file for each method performed?	Yes	

Table 3. Exception Reports.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Power Plant

Reviewer Name: Tamisha Palmer

LRC Date: 10/02/2025

Laboratory Job Number: 252347, 252366, 252368, 252369

Prep Batch Number(s): PB25091101

Exception Report No.	Description
ER1	The LCSD was outside the 25% criteria

[1] Items identified by the letter "R" must be available as a hard copy or as a .pdf file. Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

[2] O - organic analyses; I - inorganic analyses (including general chemistry constituents, when applicable).

[3] NA - Not applicable; NR - Not reviewed.

[4] Exception Report identification number; an Exception Report should be completed for an item if the result is "No" or "NR."

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  - (b) Dilution factors
  - (c) Preparation methods
  - (d) Cleanup methods
  - (e) If required for the project, tentatively identified compounds (TICs)
- [NA] R4 Surrogate recovery data including:
  - (a) Calculated recovery (%R)
  - (b) The laboratory's surrogate QC limits
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- [x] R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - (a) LCS spiking amounts
  - (b) Calculated %R for each analyte
  - (c) The laboratory's LCS QC limits
- [x] R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - (a) Samples associated with the MS/MSD clearly identified
  - (b) MS/MSD spiking amounts
  - (c) Concentration of each MS/MSD analyte measured in the parent and spiked samples
  - (d) Calculated %Rs and relative percent differences (RPDs)
  - (e) The laboratory's MS/MSD QC limits
- [x] R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - (a) The amount of analyte measured in the duplicate
  - (b) The calculated RPD
  - (c) The laboratory's QC limits for analytical duplicates
- [x] R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix
- [x] R10 Other problems or anomalies
- [x] The Exception Report for every item for which the result is "No" or "NR" (Not Reviewed)

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Check, if applicable: (●) This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Kelsey Huff		Chemist	10/09/2025
Name (printed)	Signature	Official Title	Date

Mercury Laboratory Review Checklist

Table 1. Reportable Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh

Reviewer Name: Kelsey Huff

LRC Date: 10/09/2025

Laboratory Job Number: 252347

Prep Batch Number(s): PB25100203

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
R1	O, I	**Chain-of-custody (COC)**		
	I	Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	Yes	
	I	Were all departures from standard conditions described in an exception report?	Yes	
R2	O, I	**Sample and quality control (QC) identification**		
	I	Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	Yes	
	I	Are all laboratory ID numbers cross-referenced to the corresponding QC data?	Yes	
R3	O, I	**Test reports**		
	I	Were all samples prepared and analyzed within holding times?	Yes	
	I	Other than those results < MQL, were all other raw values bracketed by calibration standards?	Yes	
	I	Were calculations checked by a peer or supervisor?	Yes	
	I	Were all analyte identifications checked by a peer or supervisor?	Yes	
	I	Were sample quantitation limits reported for all analytes not detected?	Yes	
	I	Were all results for soil and sediment samples reported on a dry weight basis?	NA	
	I	Was % moisture (or solids) reported for all soil and sediment samples?	NA	
	I	If required for the project, TICs reported?	NA	
R4	O	**Surrogate recovery data**		
	I	Were surrogates added prior to extraction?	NA	
	I	Were surrogate percent recoveries in all samples within the laboratory QC limits?	NA	
R5	O, I	**Test reports/summary forms for blank samples**		
	I	Were appropriate type(s) of blanks analyzed?	Yes	
	I	Were blanks analyzed at the appropriate frequency?	Yes	

Mercury Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
	I	Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	Yes	
	I	Were blank concentrations < MQL?	Yes	
R6	O, I	**Laboratory control samples (LCS):**		
	I	Were all COCs included in the LCS?	Yes	
	I	Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	Yes	
	I	Were LCSs analyzed at the required frequency?	Yes	
	I	Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	Yes	
	I	Was the LCSD RPD within QC limits?	Yes	
R7	O, I	**Matrix spike (MS) and matrix spike duplicate (MSD) data**		
	I	Were the project/method specified analytes included in the MS and MSD?	Yes	
	I	Were MS/MSD analyzed at the appropriate frequency?	Yes	
	I	Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Were MS/MSD RPDs within laboratory QC limits?	Yes	
R8	O, I	**Analytical duplicate data**		
	I	Were appropriate analytical duplicates analyzed for each matrix?	NA	
	I	Were analytical duplicates analyzed at the appropriate frequency?	NA	
	I	Were RPDs or relative standard deviations within the laboratory QC limits?	NA	
R9	O, I	**Method quantitation limits (MQLs):**		
	I	Are the MQLs for each method analyte included in the laboratory data package?	Yes	
	I	Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	Yes	
	I	Are unadjusted MQLs included in the laboratory data package?	Yes	
R10	O, I	**Other problems/anomalies**		
	I	Are all known problems/anomalies/special conditions noted in this LRC and ER?	Yes	
	I	Were all necessary corrective actions performed for the reported data?	Yes	
	I	Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	Yes	

Mercury Laboratory Review Checklist

Table 2. Supporting Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh

Reviewer Name: Kelsey Huff

LRC Date: 10/09/2025

Laboratory Job Number: 252347

Prep Batch Number(s): PB25100203

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S1	O, I	**Initial calibration (ICAL)**		
	I	Were response factors and/or relative response factors for each analyte within QC limits?	NA	
	I	Were percent RSDs or correlation coefficient criteria met?	Yes	
	I	Was the number of standards recommended in the method used for all analytes?	Yes	
	I	Were all points generated between the lowest and highest standard used to calculate the curve?	Yes	
	I	Are ICAL data available for all instruments used?	Yes	
	I	Has the initial calibration curve been verified using an appropriate second source standard?	Yes	
S2	O, I	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):**		
	I	Was the CCV analyzed at the method-required frequency?	Yes	
	I	Were percent differences for each analyte within the method-required QC limits?	Yes	
	I	Was the ICAL curve verified for each analyte?	Yes	
	I	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	No	ER1
S3	O	**Mass spectral tuning:**		
	I	Was the appropriate compound for the method used for tuning?	NA	
	I	Were ion abundance data within the method-required QC limits?	NA	
S4	O	**Internal standards (IS):**		
	I	Were IS area counts and retention times within the method-required QC limits?	NA	
S5	O, I	**Raw data (NELAC section 1 appendix A glossary, and section 5.)**		
	I	Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Yes	
	I	Were data associated with manual integrations flagged on the raw data?	NA	

Mercury Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S6	O	**Dual column confirmation**		
	I	Did dual column confirmation results meet the method-required QC?	NA	
S7	O	**Tentatively identified compounds (TICs):**		
	I	If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?	NA	
S8	I	**Interference Check Sample (ICS) results:**		
	I	Were percent recoveries within method QC limits?	NA	
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**		
	I	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	NA	
S10	O, I	**Method detection limit (MDL) studies**		
	I	Was a MDL study performed for each reported analyte?	Yes	
	I	Is the MDL either adjusted or supported by the analysis of DCSs?	Yes	
S11	O, I	**Proficiency test reports:**		
	I	Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Yes	
S12	O, I	**Standards documentation**		
	I	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Yes	
S13	O, I	**Compound/analyte identification procedures**		
	I	Are the procedures for compound/analyte identification documented?	Yes	
S14	O, I	**Demonstration of analyst competency (DOC)**		
	I	Was DOC conducted consistent with NELAC Chapter 5C?	Yes	
	I	Is documentation of the analyst's competency up-to-date and on file?	Yes	
S15	O, I	**Verification/validation documentation for methods (NELAC Chap 5n 5)**		
	I	Are all the methods used to generate the data documented, verified, and validated, where applicable?	Yes	
S16	O, I	**Laboratory standard operating procedures (SOPs):**		
	I	Are laboratory SOPs current and on file for each method performed?	Yes	

Table 3. Exception Reports.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh

Reviewer Name: Kelsey Huff

LRC Date: 10/09/2025

Laboratory Job Number: 252347

Prep Batch Number(s): PB25100203

Exception Report No.	Description
ER1	CCB acceptance criteria is CCB<MQL.

[1] Items identified by the letter "R" must be available as a hard copy or as a .pdf file. Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
[2] O - organic analyses; I - inorganic analyses (including general chemistry constituents, when applicable).
[3] NA - Not applicable; NR - Not reviewed.
[4] Exception Report identification number; an Exception Report should be completed for an item if the result is "No" or "NR."

Municipal Solid Waste Laboratory Review Checklist

This data package consists of:

- [x] This signature page, and the laboratory review checklist consisting of Table 1, Reportable Data (which includes the reportable data identified on this page), Table 2, Supporting Data, and Table 3, Exception Reports.
- [x] R1 Field chain-of-custody documentation
- [x] R2 Sample identification cross-reference
- [x] R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - (a) Items specified in NELAC Chapter 5 for reporting results, e.g., Section 5.5.10 in 2003 NELAC Standard
  - (b) Dilution factors
  - (c) Preparation methods
  - (d) Cleanup methods
  - (e) If required for the project, tentatively identified compounds (TICs)
- [NA] R4 Surrogate recovery data including:
  - (a) Calculated recovery (%R)
  - (b) The laboratory's surrogate QC limits
- [x] R5 Test reports/summary forms for blank samples
- [x] R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - (a) LCS spiking amounts
  - (b) Calculated %R for each analyte
  - (c) The laboratory's LCS QC limits
- [x] R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - (a) Samples associated with the MS/MSD clearly identified
  - (b) MS/MSD spiking amounts
  - (c) Concentration of each MS/MSD analyte measured in the parent and spiked samples
  - (d) Calculated %Rs and relative percent differences (RPDs)
  - (e) The laboratory's MS/MSD QC limits
- [x] R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - (a) The amount of analyte measured in the duplicate
  - (b) The calculated RPD
  - (c) The laboratory's QC limits for analytical duplicates
- [x] R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix
- [x] R10 Other problems or anomalies
- [x] The Exception Report for every item for which the result is "No" or "NR" (Not Reviewed)

Release Statement: I am responsible for the release of this laboratory data package. This data package as been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, if applicable: (●) This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Elizabeth Hoitink	Elizabeth L Hoitink Digitally signed by Elizabeth L Hoitink Date: 2025.09.18 13:25:58 -04'00'	Chemist	9-18-2025
Name (printed)	Signature	Official Title	Date

ICP-MS Laboratory Review Checklist

Table 1. Reportable Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh CCR

Reviewer Name: Elizabeth Hoitink

LRC Date: 9-18-2025

Laboratory Job Number: 252347

Prep Batch Number(s): PB25091602, QC2509102

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
R1	O, I	**Chain-of-custody (COC)**		
	I	Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	Yes	
	I	Were all departures from standard conditions described in an exception report?	Yes	
R2	O, I	**Sample and quality control (QC) identification**		
	I	Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	Yes	
	I	Are all laboratory ID numbers cross-referenced to the corresponding QC data?	Yes	
R3	O, I	**Test reports**		
	I	Were all samples prepared and analyzed within holding times?	Yes	
	I	Other than those results < MQL, were all other raw values bracketed by calibration standards?	No	ER1
	I	Were calculations checked by a peer or supervisor?	Yes	
	I	Were all analyte identifications checked by a peer or supervisor?	Yes	
	I	Were sample quantitation limits reported for all analytes not detected?	Yes	
	I	Were all results for soil and sediment samples reported on a dry weight basis?	NA	
	I	Was % moisture (or solids) reported for all soil and sediment samples?	NA	
	I	If required for the project, TICs reported?	NA	
R4	O	**Surrogate recovery data**		
	I	Were surrogates added prior to extraction?	NA	
	I	Were surrogate percent recoveries in all samples within the laboratory QC limits?	NA	
R5	O, I	**Test reports/summary forms for blank samples**		
	I	Were appropriate type(s) of blanks analyzed?	Yes	
	I	Were blanks analyzed at the appropriate frequency?	Yes	

ICP-MS Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
	I	Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	Yes	
	I	Were blank concentrations < MQL?	Yes	
R6	O, I	**Laboratory control samples (LCS):**		
	I	Were all COCs included in the LCS?	Yes	
	I	Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	Yes	
	I	Were LCSs analyzed at the required frequency?	Yes	
	I	Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	Yes	
	I	Was the LCSD RPD within QC limits?	Yes	
R7	O, I	**Matrix spike (MS) and matrix spike duplicate (MSD) data**		
	I	Were the project/method specified analytes included in the MS and MSD?	Yes	
	I	Were MS/MSD analyzed at the appropriate frequency?	Yes	
	I	Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Were MS/MSD RPDs within laboratory QC limits?	Yes	
R8	O, I	**Analytical duplicate data**		
	I	Were appropriate analytical duplicates analyzed for each matrix?	Yes	
	I	Were analytical duplicates analyzed at the appropriate frequency?	Yes	
	I	Were RPDs or relative standard deviations within the laboratory QC limits?	Yes	
R9	O, I	**Method quantitation limits (MQLs):**		
	I	Are the MQLs for each method analyte included in the laboratory data package?	Yes	
	I	Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	Yes	
	I	Are unadjusted MQLs included in the laboratory data package?	Yes	
R10	O, I	**Other problems/anomalies**		
	I	Are all known problems/anomalies/special conditions noted in this LRC and ER?	Yes	
	I	Were all necessary corrective actions performed for the reported data?	Yes	
	I	Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	Yes	

Table 2. Supporting Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh CCR

Reviewer Name: Elizabeth Hoitink

LRC Date: 9-18-2025

Laboratory Job Number: 252347

Prep Batch Number(s): PB25091602, QC2509102

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S1	O, I	**Initial calibration (ICAL)**		
	I	Were response factors and/or relative response factors for each analyte within QC limits?	NA	
	I	Were percent RSDs or correlation coefficient criteria met?	Yes	
	I	Was the number of standards recommended in the method used for all analytes?	Yes	
	I	Were all points generated between the lowest and highest standard used to calculate the curve?	Yes	
	I	Are ICAL data available for all instruments used?	Yes	
	I	Has the initial calibration curve been verified using an appropriate second source standard?	Yes	
S2	O, I	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):**		
	I	Was the CCV analyzed at the method-required frequency?	Yes	
	I	Were percent differences for each analyte within the method-required QC limits?	Yes	
	I	Was the ICAL curve verified for each analyte?	Yes	
	I	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	No	ER2
S3	O	**Mass spectral tuning:**		
	I	Was the appropriate compound for the method used for tuning?	Yes	
	I	Were ion abundance data within the method-required QC limits?	Yes	
S4	O	**Internal standards (IS):**		
	I	Were IS area counts and retention times within the method-required QC limits?	Yes	
S5	O, I	**Raw data (NELAC section 1 appendix A glossary, and section 5.)**		
	I	Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Yes	
	I	Were data associated with manual integrations flagged on the raw data?	NA	

ICP-MS Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S6	O	**Dual column confirmation**		
	I	Did dual column confirmation results meet the method-required QC?	NA	
S7	O	**Tentatively identified compounds (TICs):**		
	I	If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?	NA	
S8	I	**Interference Check Sample (ICS) results:**		
	I	Were percent recoveries within method QC limits?	NA	
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**		
	I	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	NA	
S10	O, I	**Method detection limit (MDL) studies**		
	I	Was a MDL study performed for each reported analyte?	Yes	
	I	Is the MDL either adjusted or supported by the analysis of DCSs?	Yes	
S11	O, I	**Proficiency test reports:**		
	I	Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Yes	
S12	O, I	**Standards documentation**		
	I	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Yes	
S13	O, I	**Compound/analyte identification procedures**		
	I	Are the procedures for compound/analyte identification documented?	Yes	
S14	O, I	**Demonstration of analyst competency (DOC)**		
	I	Was DOC conducted consistent with NELAC Chapter 5C?	Yes	
	I	Is documentation of the analyst's competency up-to-date and on file?	Yes	
S15	O, I	**Verification/validation documentation for methods (NELAC Chap 5n 5)**		
	I	Are all the methods used to generate the data documented, verified, and validated, where applicable?	Yes	
S16	O, I	**Laboratory standard operating procedures (SOPs):**		
	I	Are laboratory SOPs current and on file for each method performed?	Yes	

Table 3. Exception Reports.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh CCR

Reviewer Name: Elizabeth Hoitink

LRC Date: 9-18-2025

Laboratory Job Number: 252347

Prep Batch Number(s): PB25091602, QC2509102

Exception Report No.	Description
ER1	Linear Dynamic Range (LDR) study used to determine upper limit of analyte calibration.
ER2	CCB acceptance criteria is CCB<2.2*MDL.

[1] Items identified by the letter "R" must be available as a hard copy or as a .pdf file. Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
[2] O - organic analyses; I - inorganic analyses (including general chemistry constituents, when applicable).
[3] NA - Not applicable; NR - Not reviewed.
[4] Exception Report identification number; an Exception Report should be completed for an item if the result is "No" or "NR."

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 252324 **Customer: Welsh Power Station** **Date Reported: 10/03/2025**

Customer Sample ID: AD-8
Customer Description:
Lab Number: 252324-001
Preparation:
Date Collected: 09/03/2025 11:31 EDT
Date Received: 09/05/2025 10:25 EDT

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Chloride	16.3	mg/L	2	0.06	0.02		JCF	09/11/2025 21:33	EPA 300.1 -1997, Rev. 1.0
Fluoride	1.02	mg/L	2	0.06	0.02		JCF	09/11/2025 21:33	EPA 300.1 -1997, Rev. 1.0
Sulfate	141	mg/L	10	3.0	0.2		JCF	09/11/2025 16:12	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
TDS, Filterable Residue	120	mg/L	1	50	20		BLB	09/05/2025 12:36	SM 2540C-2020

Customer Sample ID: AD-9
Customer Description:
Lab Number: 252324-002
Preparation:
Date Collected: 09/03/2025 10:28 EDT
Date Received: 09/05/2025 10:25 EDT

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Chloride	33.8	mg/L	2	0.06	0.02		JCF	09/11/2025 21:56	EPA 300.1 -1997, Rev. 1.0
Fluoride	0.17	mg/L	2	0.06	0.02		JCF	09/11/2025 21:56	EPA 300.1 -1997, Rev. 1.0
Sulfate	513	mg/L	25	7.5	0.5		JCF	09/11/2025 16:35	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
TDS, Filterable Residue	310	mg/L	1	50	20		BLB	09/05/2025 12:36	SM 2540C-2020

Customer Sample ID: AD-15
Customer Description:
Lab Number: 252324-003
Preparation:
Date Collected: 09/02/2025 11:12 EDT
Date Received: 09/05/2025 10:25 EDT

Ion Chromatography

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Chloride	27.6	mg/L	2	0.06	0.02		JCF	09/11/2025 22:19	EPA 300.1 -1997, Rev. 1.0
Fluoride	0.06	mg/L	2	0.06	0.02		JCF	09/11/2025 22:19	EPA 300.1 -1997, Rev. 1.0
Sulfate	6.63	mg/L	2	0.60	0.04		JCF	09/11/2025 22:19	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
TDS, Filterable Residue	420	mg/L	1	50	20		BLB	09/05/2025 12:36	SM 2540C-2020

Water Analysis Report

Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
Phone: 614-836-4221
Audinet: 210-4221

Job ID: 252324 **Customer: Welsh Power Station** **Date Reported: 10/03/2025**

Customer Sample ID: DUP-PBAP
Lab Number: 252324-004
Date Collected: 09/02/2025 13:59 EDT

Customer Description:
Preparation:
Date Received: 09/05/2025 10:25 EDT

Ion Chromatography

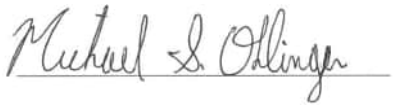
Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
Chloride	27.1	mg/L	2	0.06	0.02		JCF	09/11/2025 22:42	EPA 300.1 -1997, Rev. 1.0
Fluoride	0.06	mg/L	2	0.06	0.02		JCF	09/11/2025 22:42	EPA 300.1 -1997, Rev. 1.0
Sulfate	5.1	mg/L	10	3.0	0.2		JCF	09/11/2025 16:58	EPA 300.1 -1997, Rev. 1.0

Wet Chemistry

Parameter	Result	Units	Dilution	RL	MDL	Data Qualifiers	Analyst	Analysis Date	Method
TDS, Filterable Residue	390	mg/L	1	50	20		BLB	09/05/2025 12:36	SM 2540C-2020

Report Verification

This report and the above data have been confirmed by the following analyst.



Michael Ohlinger, Chemist
Email: msohlinger@aep.com
Phone: 614-836-4184
Audinet: 8-210-4184

THIS TEST REPORT RELATES ONLY TO THE ITEMS TESTED AND SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT WRITTEN APPROVAL OF THE LABORATORY. ALL TEST RESULTS MEET ALL OF THE REQUIREMENTS OF THE ACCREDITING AUTHORITY, UNLESS OTHERWISE NOTED. ALL TIMES LISTED ARE IN THE EASTERN TIME ZONE.

Chain of Custody Record

Program: Coal Combustion Residuals (CCR)

Dolan Chemical Laboratory (DCL)
4001 Bixby Road
Groveport, Ohio 43125

Contacts: Michael Ohlinger (614-836-4184)

Project Name: Welsh PBAP
Contact Name: Pryce Warren
Contact Phone: (325) 310-6668
Sampler(s): Matt Hamilton Brad Bates

Analysis Turnaround Time (in Calendar Days)
Routine (28 days)

Site Contact:

Date:

For Lab Use Only:
COC/Order #: 752324

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Sampler(s) Initials	250 mL bottle, pH<2, HNO_3 B, Ca, Li, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Mo, Se, TL	Field-filter 500 mL bottle, then pH<2, HNO_3 dissolved Fe and Mn	1 L bottle, Cool, 0-6°C TDS, F, Cl, SO_4	Three (six every 10th*) 1 L bottles, pH<2, HNO_3 Ra-226, Ra-228	40 mL Glass vial or 125 mL PTFE lined bottle, HCL^{**}, pH<2 Hg			Sample Specific Notes:
AD-8	9/3/2025	1031	G	GW	1				X					Routine (28 days)
AD-9	9/3/2025	928	G	GW	1				X					**TG-32 needed**
AD-15	9/2/2025	1012	G	GW	1				X					
DUPLICATE - PBAP	9/2/2025	1259	G	GW	1				X					
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____; F= filter in field							4	F4	1	4				

** Six 1L Bottles must be collected for Radium for every 10th sample.*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Date/Time:
[signature]	Eagle	9-4-25 1600		
Relinquished by:	Company:	Date/Time:	Received by:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Date/Time:
			[signature]	09/05/25 1025

WATER & WASTE SAMPLE RECEIPT FORM

Form SOP-7102 Sample Receipt Form Rev.10, 01/03/25

Package Type	Delivery Type
(Cooler) Box Bag Envelope	UPS (FedEX) USPS
	Other _____

Plant/Customer Welsh **Total # of Containers RECEIVED in Job:** 4

Opened By KM/EGM

Date/Time 09/05/25 1025

Were all required temperatures, per BN-water-900, T≤6°C *w/o sample freezing*? (Y) / N or N/A

Initial/Date: EGM 9/5/25 (on ice) / no ice

If No, specify each deviation(s) on back of form. (IR Gun Ser# 240093386, *Expir.* 01/31/2026)

Was container in good condition? (Y) / N Comments _____

Was Chain of Custody received? (Y) / N Comments _____

Requested turnaround: Routine If **RUSH**, who was notified? _____

pH (15 min) Cr^{+6} (pres) (24 hr) NO_2 or NO_3 (48 hr) *ortho*-PO_4 (48 hr) Hg-diss (pres) (48 hr)

Were pH requirements met for required samples, per BN-water-900? (Y) / N or N/A

Initial/Date: EGM 9/5/25

pH paper: mfr LabRat ,PN LRS-4801 ,LOT# X000RWDG21 ,EXPIR DATE 09/30/2026

*** Note changes to pH paper in comments below***

Was Add'l Preservative needed? Y / (N) If Yes: By whom & when: N/A (See Prep Book)

(Dissolved) Is sample filtration requested? Y / (N) Comments N/A (See Prep Book)

Was COC filled out properly? (Y) / N Comments _____

Were samples labeled properly? (Y) / N Comments _____

Were correct containers used? (Y) / N Comments _____

Was the customer contacted? If Yes: Person Contacted: _____

Lab ID# 752324 Initial & Date & Time : N/A

Logged by KM Comments: _____

(Record Test Count on back of form)

Total # of Containers LISTED on COC: 4

WATER & WASTE SAMPLE RECEIPT FORM (CONT)

Form SOP-7102 Sample Receipt Form Rev 10, 01/03/25

REMINDER: Document the pertinent sample integrity information and deviations in sample receipt (as noted above) in the Sample or Job "Comments" field in the LIMS. **Comments below**:
i.e. Mark "LF" if needs Lab filtered, Temperature or Preservative deviation, Preserved upon arrival , etc.

JOB # : 752324 **Initial/ Date:** ~~AMO~~ 09/05/25 **Peer Review Initial/ Date:** EGM 9/5/25

Login Test Count from COC	LIMS Sample ID (or COC Sample Name)	Comments /Nonconformities	Peer Review Test Count from COC
4	752324-001		4
↓	-002	NA	↓
	-003		
	-004		

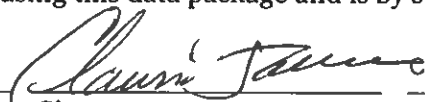
Municipal Solid Waste Laboratory Review Checklist

This data package consists of:

- [x] This signature page, and the laboratory review checklist consisting of Table 1, Reportable Data (which includes the reportable data identified on this page), Table 2, Supporting Data, and Table 3, Exception Reports.
- [x] R1 Field chain-of-custody documentation
- [x] R2 Sample identification cross-reference
- [x] R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - (a) Items specified in NELAC Chapter 5 for reporting results, e.g., Section 5.5.10 in 2003 NELAC Standard
  - (b) Dilution factors
  - (c) Preparation methods
  - (d) Cleanup methods
  - (e) If required for the project, tentatively identified compounds (TICs)
- [x] R4 Surrogate recovery data including:
  - (a) Calculated recovery (%R)
  - (b) The laboratory's surrogate QC limits
- [x] R5 Test reports/summary forms for blank samples
- [x] R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - (a) LCS spiking amounts
  - (b) Calculated %R for each analyte
  - (c) The laboratory's LCS QC limits
- [x] R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - (a) Samples associated with the MS/MSD clearly identified
  - (b) MS/MSD spiking amounts
  - (c) Concentration of each MS/MSD analyte measured in the parent and spiked samples
  - (d) Calculated %Rs and relative percent differences (RPDs)
  - (e) The laboratory's MS/MSD QC limits
- [x] R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - (a) The amount of analyte measured in the duplicate
  - (b) The calculated RPD
  - (c) The laboratory's QC limits for analytical duplicates
- [x] R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix
- [x] R10 Other problems or anomalies
- [x] The Exception Report for every item for which the result is "No" or "NR" (Not Reviewed)

Release Statement: I am responsible for the release of this laboratory data package. This data package as been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, if applicable: (●) This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Clarissa Jameson		Chemical Lab Tech. Principle	9/25/26
Name (printed)	Signature	Official Title	Date

Ion Chromatography Laboratory Review Checklist

Table 1. Reportable Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh PBAP

Reviewer Name: Clarissa Jameson

LRC Date: 9/26/2025

Laboratory Job Number: 252324

Prep Batch Number(s): QC2509071

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
R1	O, I	**Chain-of-custody (COC)**		
	I	Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	Yes	
	I	Were all departures from standard conditions described in an exception report?	Yes	
R2	O, I	**Sample and quality control (QC) identification**		
	I	Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	Yes	
	I	Are all laboratory ID numbers cross-referenced to the corresponding QC data?	Yes	
R3	O, I	**Test reports**		
	I	Were all samples prepared and analyzed within holding times?	Yes	
	I	Other than those results < MQL, were all other raw values bracketed by calibration standards?	Yes	
	I	Were calculations checked by a peer or supervisor?	Yes	
	I	Were all analyte identifications checked by a peer or supervisor?	Yes	
	I	Were sample quantitation limits reported for all analytes not detected?	Yes	
	I	Were all results for soil and sediment samples reported on a dry weight basis?	NA	
	I	Was % moisture (or solids) reported for all soil and sediment samples?	NA	
	I	If required for the project, TICs reported?	NA	
R4	O	**Surrogate recovery data**		
	I	Were surrogates added prior to extraction?	Yes	
	I	Were surrogate percent recoveries in all samples within the laboratory QC limits?	Yes	
R5	O, I	**Test reports/summary forms for blank samples**		
	I	Were appropriate type(s) of blanks analyzed?	Yes	
	I	Were blanks analyzed at the appropriate frequency?	Yes	

Ion Chromatography Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
	I	Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	Yes	
	I	Were blank concentrations < MQL?	Yes	
R6	O, I	**Laboratory control samples (LCS):**		
	I	Were all COCs included in the LCS?	Yes	
	I	Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	Yes	
	I	Were LCSs analyzed at the required frequency?	Yes	
	I	Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	Yes	
	I	Was the LCSD RPD within QC limits?	Yes	
R7	O, I	**Matrix spike (MS) and matrix spike duplicate (MSD) data**		
	I	Were the project/method specified analytes included in the MS and MSD?	Yes	
	I	Were MS/MSD analyzed at the appropriate frequency?	Yes	
	I	Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Were MS/MSD RPDs within laboratory QC limits?	Yes	
R8	O, I	**Analytical duplicate data**		
	I	Were appropriate analytical duplicates analyzed for each matrix?	Yes	
	I	Were analytical duplicates analyzed at the appropriate frequency?	Yes	
	I	Were RPDs or relative standard deviations within the laboratory QC limits?	Yes	
R9	O, I	**Method quantitation limits (MQLs):**		
	I	Are the MQLs for each method analyte included in the laboratory data package?	Yes	
	I	Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	Yes	
	I	Are unadjusted MQLs included in the laboratory data package?	Yes	
R10	O, I	**Other problems/anomalies**		
	I	Are all known problems/anomalies/special conditions noted in this LRC and ER?	Yes	
	I	Were all necessary corrective actions performed for the reported data?	Yes	
	I	Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	Yes	

Table 2. Supporting Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh PBAP

Reviewer Name: Clarissa Jameson

LRC Date: 9/26/2025

Laboratory Job Number: 252324

Prep Batch Number(s): QC2509071

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S1	O, I	**Initial calibration (ICAL)**		
	I	Were response factors and/or relative response factors for each analyte within QC limits?	NA	
	I	Were percent RSDs or correlation coefficient criteria met?	Yes	
	I	Was the number of standards recommended in the method used for all analytes?	Yes	
	I	Were all points generated between the lowest and highest standard used to calculate the curve?	Yes	
	I	Are ICAL data available for all instruments used?	Yes	
	I	Has the initial calibration curve been verified using an appropriate second source standard?	Yes	
S2	O, I	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):**		
	I	Was the CCV analyzed at the method-required frequency?	Yes	
	I	Were percent differences for each analyte within the method-required QC limits?	Yes	
	I	Was the ICAL curve verified for each analyte?	Yes	
	I	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	No	ER1
S3	O	**Mass spectral tuning:**		
	I	Was the appropriate compound for the method used for tuning?	NA	
	I	Were ion abundance data within the method-required QC limits?	NA	
S4	O	**Internal standards (IS):**		
	I	Were IS area counts and retention times within the method-required QC limits?	NA	
S5	O, I	**Raw data (NELAC section 1 appendix A glossary, and section 5.)**		
	I	Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Yes	
	I	Were data associated with manual integrations flagged on the raw data?	NA	

Ion Chromatography Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S6	O	**Dual column confirmation**		
	I	Did dual column confirmation results meet the method-required QC?	NA	
S7	O	**Tentatively identified compounds (TICs):**		
	I	If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?	NA	
S8	I	**Interference Check Sample (ICS) results:**		
	I	Were percent recoveries within method QC limits?	NA	
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**		
	I	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	NA	
S10	O, I	**Method detection limit (MDL) studies**		
	I	Was a MDL study performed for each reported analyte?	Yes	
	I	Is the MDL either adjusted or supported by the analysis of DCSs?	Yes	
S11	O, I	**Proficiency test reports:**		
	I	Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Yes	
S12	O, I	**Standards documentation**		
	I	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Yes	
S13	O, I	**Compound/analyte identification procedures**		
	I	Are the procedures for compound/analyte identification documented?	Yes	
S14	O, I	**Demonstration of analyst competency (DOC)**		
	I	Was DOC conducted consistent with NELAC Chapter 5C?	Yes	
	I	Is documentation of the analyst's competency up-to-date and on file?	Yes	
S15	O, I	**Verification/validation documentation for methods (NELAC Chap 5n 5)**		
	I	Are all the methods used to generate the data documented, verified, and validated, where applicable?	Yes	
S16	O, I	**Laboratory standard operating procedures (SOPs):**		
	I	Are laboratory SOPs current and on file for each method performed?	Yes	

Table 3. Exception Reports.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh PBAP

Reviewer Name: Clarissa Jameson

LRC Date: 9/26/2025

Laboratory Job Number: 252324

Prep Batch Number(s): QC2509071

Exception Report No.	Description
ER1	CCB acceptance criteria is CCB<MQL.

[1] Items identified by the letter "R" must be available as a hard copy or as a .pdf file. Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

[2] O - organic analyses; I - inorganic analyses (including general chemistry constituents, when applicable).

[3] NA - Not applicable; NR - Not reviewed.

[4] Exception Report identification number; an Exception Report should be completed for an item if the result is "No" or "NR."

Municipal Solid Waste Laboratory Review Checklist

This data package consists of:

- [x] This signature page, and the laboratory review checklist consisting of Table 1, Reportable Data (which includes the reportable data identified on this page), Table 2, Supporting Data, and Table 3, Exception Reports.
- [x] R1 Field chain-of-custody documentation
- [x] R2 Sample identification cross-reference
- [x] R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - (a) Items specified in NELAC Chapter 5 for reporting results, e.g., Section 5.5.10 in 2003 NELAC Standard
  - (b) Dilution factors
  - (c) Preparation methods
  - (d) Cleanup methods
  - (e) If required for the project, tentatively identified compounds (TICs)
- [NA] R4 Surrogate recovery data including:
  - (a) Calculated recovery (%R)
  - (b) The laboratory's surrogate QC limits
- [x] R5 Test reports/summary forms for blank samples
- [x] R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - (a) LCS spiking amounts
  - (b) Calculated %R for each analyte
  - (c) The laboratory's LCS QC limits
- [x] R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - (a) Samples associated with the MS/MSD clearly identified
  - (b) MS/MSD spiking amounts
  - (c) Concentration of each MS/MSD analyte measured in the parent and spiked samples
  - (d) Calculated %Rs and relative percent differences (RPDs)
  - (e) The laboratory's MS/MSD QC limits
- [x] R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - (a) The amount of analyte measured in the duplicate
  - (b) The calculated RPD
  - (c) The laboratory's QC limits for analytical duplicates
- [x] R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix
- [x] R10 Other problems or anomalies
- [x] The Exception Report for every item for which the result is "No" or "NR" (Not Reviewed)

Release Statement: I am responsible for the release of this laboratory data package. This data package as been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, if applicable: (●) This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Sandra Williams	Sandra D. Williams	Chemist	9/22/2025
Name (printed)	Signature	Official Title	Date

TDS Laboratory Review Checklist

Table 1. Reportable Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Power Station

Reviewer Name: Sandra Williams

LRC Date: 9/22/2025

Laboratory Job Number: 252324

Prep Batch Number(s): QC2509060

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
R1	O, I	**Chain-of-custody (COC)**		
	I	Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	Yes	
	I	Were all departures from standard conditions described in an exception report?	NA	
R2	O, I	**Sample and quality control (QC) identification**		
	I	Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	Yes	
	I	Are all laboratory ID numbers cross-referenced to the corresponding QC data?	Yes	
R3	O, I	**Test reports**		
	I	Were all samples prepared and analyzed within holding times?	Yes	
	I	Other than those results < MQL, were all other raw values bracketed by calibration standards?	NA	
	I	Were calculations checked by a peer or supervisor?	Yes	
	I	Were all analyte identifications checked by a peer or supervisor?	Yes	
	I	Were sample quantitation limits reported for all analytes not detected?	Yes	
	I	Were all results for soil and sediment samples reported on a dry weight basis?	NA	
	I	Was % moisture (or solids) reported for all soil and sediment samples?	NA	
	I	If required for the project, TICs reported?	NA	
R4	O	**Surrogate recovery data**		
	I	Were surrogates added prior to extraction?	NA	
	I	Were surrogate percent recoveries in all samples within the laboratory QC limits?	NA	
R5	O, I	**Test reports/summary forms for blank samples**		
	I	Were appropriate type(s) of blanks analyzed?	Yes	
	I	Were blanks analyzed at the appropriate frequency?	Yes	

TDS Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
	I	Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	Yes	
	I	Were blank concentrations < MQL?	Yes	
R6	O, I	**Laboratory control samples (LCS):**		
	I	Were all COCs included in the LCS?	Yes	
	I	Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	Yes	
	I	Were LCSs analyzed at the required frequency?	Yes	
	I	Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	Yes	
	I	Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	Yes	
	I	Was the LCSD RPD within QC limits?	Yes	
R7	O, I	**Matrix spike (MS) and matrix spike duplicate (MSD) data**		
	I	Were the project/method specified analytes included in the MS and MSD?	NA	
	I	Were MS/MSD analyzed at the appropriate frequency?	NA	
	I	Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	NA	
	I	Were MS/MSD RPDs within laboratory QC limits?	NA	
R8	O, I	**Analytical duplicate data**		
	I	Were appropriate analytical duplicates analyzed for each matrix?	Yes	
	I	Were analytical duplicates analyzed at the appropriate frequency?	Yes	
	I	Were RPDs or relative standard deviations within the laboratory QC limits?	No	P1
R9	O, I	**Method quantitation limits (MQLs):**		
	I	Are the MQLs for each method analyte included in the laboratory data package?	Yes	
	I	Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	Yes	
	I	Are unadjusted MQLs included in the laboratory data package?	Yes	
R10	O, I	**Other problems/anomalies**		
	I	Are all known problems/anomalies/special conditions noted in this LRC and ER?	Yes	
	I	Were all necessary corrective actions performed for the reported data?	Yes	
	I	Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	Yes	

TDS Laboratory Review Checklist

Table 2. Supporting Data.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Power Station

Reviewer Name: Sandra Williams

LRC Date: 9/22/2025

Laboratory Job Number: 252324

Prep Batch Number(s): QC2509060

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S1	O, I	**Initial calibration (ICAL)**		
	I	Were response factors and/or relative response factors for each analyte within QC limits?	NA	
	I	Were percent RSDs or correlation coefficient criteria met?	NA	
	I	Was the number of standards recommended in the method used for all analytes?	NA	
	I	Were all points generated between the lowest and highest standard used to calculate the curve?	NA	
	I	Are ICAL data available for all instruments used?	NA	
	I	Has the initial calibration curve been verified using an appropriate second source standard?	NA	
S2	O, I	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):**		
	I	Was the CCV analyzed at the method-required frequency?	NA	
	I	Were percent differences for each analyte within the method-required QC limits?	NA	
	I	Was the ICAL curve verified for each analyte?	NA	
	I	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	NA	
S3	O	**Mass spectral tuning:**		
	I	Was the appropriate compound for the method used for tuning?	NA	
	I	Were ion abundance data within the method-required QC limits?	NA	
S4	O	**Internal standards (IS):**		
	I	Were IS area counts and retention times within the method-required QC limits?	NA	
S5	O, I	**Raw data (NELAC section 1 appendix A glossary, and section 5.)**		
	I	Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Yes	
	I	Were data associated with manual integrations flagged on the raw data?	NA	

TDS Laboratory Review Checklist

Item[1]	Analytes[2]	Description	Result (Yes, No, NA, NR)[3]	Exception Report No.[4]
S6	O	**Dual column confirmation**		
	I	Did dual column confirmation results meet the method-required QC?	NA	
S7	O	**Tentatively identified compounds (TICs):**		
	I	If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?	NA	
S8	I	**Interference Check Sample (ICS) results:**		
	I	Were percent recoveries within method QC limits?	NA	
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**		
	I	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	NA	
S10	O, I	**Method detection limit (MDL) studies**		
	I	Was a MDL study performed for each reported analyte?	Yes	
	I	Is the MDL either adjusted or supported by the analysis of DCSs?	Yes	
S11	O, I	**Proficiency test reports:**		
	I	Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Yes	
S12	O, I	**Standards documentation**		
	I	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Yes	
S13	O, I	**Compound/analyte identification procedures**		
	I	Are the procedures for compound/analyte identification documented?	Yes	
S14	O, I	**Demonstration of analyst competency (DOC)**		
	I	Was DOC conducted consistent with NELAC Chapter 5C?	Yes	
	I	Is documentation of the analyst's competency up-to-date and on file?	Yes	
S15	O, I	**Verification/validation documentation for methods (NELAC Chap 5n 5)**		
	I	Are all the methods used to generate the data documented, verified, and validated, where applicable?	Yes	
S16	O, I	**Laboratory standard operating procedures (SOPs):**		
	I	Are laboratory SOPs current and on file for each method performed?	Yes	

Table 3. Exception Reports.

Laboratory Name: American Electric Power Dolan Chemical Laboratory

Project Name: Welsh Power Station

Reviewer Name: Sandra Williams

LRC Date: 9/22/2025

Laboratory Job Number: 252324

Prep Batch Number(s): QC2509060

Exception Report No.	Description
P1	The precision between duplicate results was above acceptance limits.

[1] Items identified by the letter "R" must be available as a hard copy or as a .pdf file. Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

[2] O - organic analyses; I - inorganic analyses (including general chemistry constituents, when applicable).

[3] NA - Not applicable; NR - Not reviewed.

[4] Exception Report identification number; an Exception Report should be completed for an item if the result is "No" or "NR."