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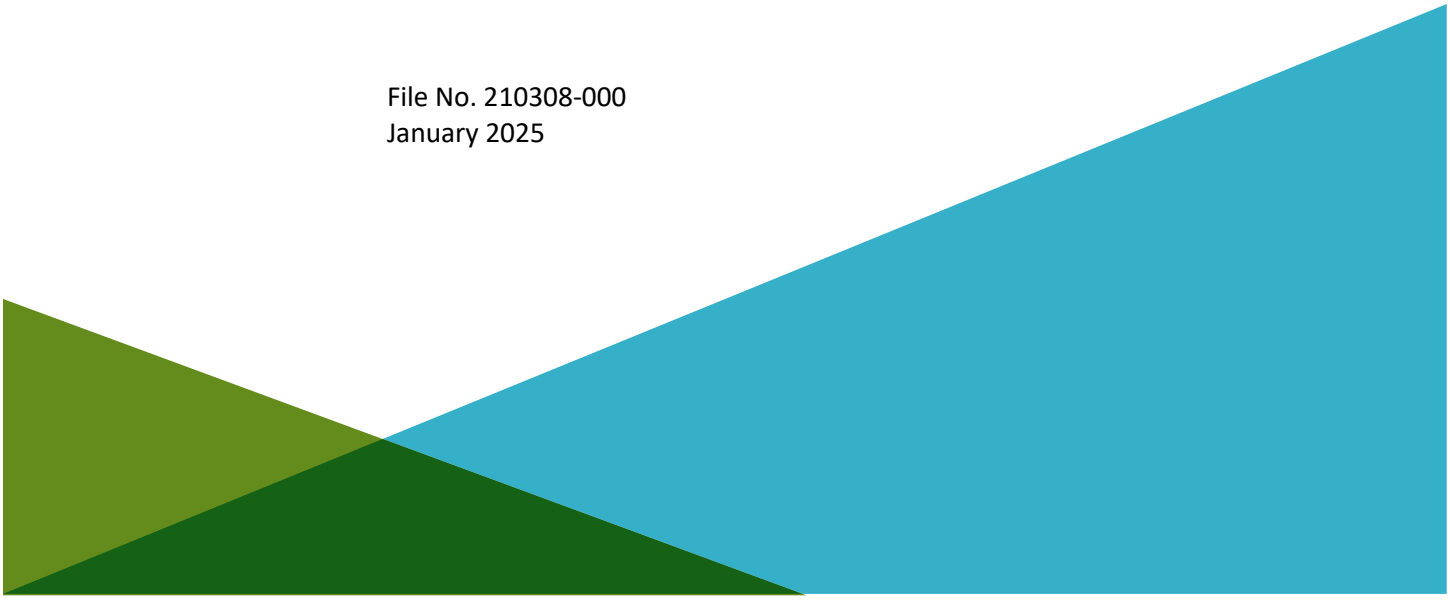
2024 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
FLY ASH LANDFILL
JEFFREY ENERGY CENTER
ST. MARYS, KANSAS

by
Haley & Aldrich, Inc.
Cleveland, Ohio

for
Evergy Kansas Central, Inc.
Topeka, Kansas

File No. 210308-000
January 2025



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This Annual Groundwater Monitoring and Corrective Action Report documents the groundwater monitoring program for the Jeffrey Energy Center Fly Ash Landfill (FAL) consistent with applicable sections of 257.90 through 257.98, and describes activities conducted in the prior calendar year (2024) and documents compliance with the U.S. Environmental Protection Agency Coal Combustion Residual Rule. I certify that the 2024 Annual Groundwater Monitoring and Corrective Action Report for the JEC FAL is, to the best of my knowledge, accurate and complete.

Signed: _____
Professional Geologist

Print Name:	Mark Nicholls
Kansas License No.:	Professional Geologist No. 881
Title:	Principal Consultant
Company:	Haley & Aldrich, Inc.

1. Introduction

This 2024 Annual Groundwater Monitoring and Corrective Action Report (Annual Report) addresses the Fly Ash Landfill (FAL) at the Jeffrey Energy Center (JEC), operated by Evergy Kansas Central, Inc. (Evergy). This Annual Report was developed in accordance with the U.S. Environmental Protection Agency Coal Combustion Residual (CCR) Rule (Rule) effective October 19, 2015, including subsequent revisions, specifically Title 40 Code of Federal Regulations (40 CFR), subsection 257.90(e). The Annual Report documents the groundwater monitoring system for the FAL consistent with applicable sections of 257.90 through 257.98, and describes activities conducted in the prior calendar year (2024) and document compliance with the Rule. The specific requirements for the Annual Report listed in § 257.90(e)(1)-(5) of the Rule are provided in Sections 1 and 2 of this Annual Report and are in bold italic font, followed by a short narrative describing how each Rule requirement has been met.

1.1 40 CFR § 257.90(E)(6) SUMMARY

A section at the beginning of the annual report that provides an overview of the current status of groundwater monitoring and corrective action programs for the CCR unit. At a minimum, the summary must specify all of the following:

1.1.1 40 CFR § 257.90(e)(6)(i) – Initial Monitoring Program

At the start of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in § 257.94 or the assessment monitoring program in § 257.95;

At the start of the current annual reporting period (January 1, 2024), the FAL was operating under an assessment monitoring program in compliance with 40 CFR § 257.95.

1.1.2 40 CFR § 257.90(e)(6)(ii) – Final Monitoring Program

At the end of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in § 257.94 or the assessment monitoring program in § 257.95;

At the end of the current annual reporting period (December 31, 2024), the FAL was operating under an assessment monitoring program in compliance with 40 CFR § 257.95.

1.1.3 40 CFR § 257.90(e)(6)(iii) – Statistically Significant Increases

If it was determined that there was a statistically significant increase over background for one or more constituents listed in Appendix III to this part pursuant to § 257.94(e):

1.1.3.1 40 CFR § 257.90(e)(6)(iii)(a) – Statistically Significant Increase Constituents

Identify those constituents listed in Appendix III to this part and the names of the monitoring wells associated with such an increase; and

The FAL is operating under an assessment monitoring program. Therefore, no statistical evaluations were completed on Appendix III constituents in 2024.

1.1.3.2 40 CFR § 257.90(e)(6)(iii)(b) – Initiation of Assessment Monitoring

Provide the date when the assessment monitoring program was initiated for the CCR unit.

An assessment monitoring program was initiated on July 17, 2018 for the FAL and notification of assessment monitoring was provided on August 15, 2018 to meet the requirements of 40 CFR § 257.95. The FAL remained in assessment monitoring during 2024.

1.1.4 40 CFR § 257.90(e)(6)(iv) – Statistically Significant Levels

If it was determined that there was a statistically significant level above the groundwater protection standard for one or more constituents listed in Appendix IV to this part pursuant to § 257.95(g) include all of the following:

1.1.4.1 40 CFR § 257.90(e)(6)(iv)(A) – Statistically Significant Level Constituents

Identify those constituents listed in Appendix IV to this part and the names of the monitoring wells associated with such an increase;

No statistically significant levels were identified above the groundwater protection standard for constituents listed in Appendix IV of the CCR Rule in 2024 for the FAL. The statistical evaluation reports for semiannual assessment monitoring events from September 2023 and March 2024 were completed in January 2024 and July 2024, respectively, and are included in Attachment 1.

1.1.4.2 40 CFR § 257.90(e)(6)(iv)(B) – Initiation of the Assessment of Corrective Measures

Provide the date when the assessment of corrective measures was initiated for the CCR unit;

No assessment of corrective measures was required to be initiated in 2024 for this unit. The FAL remained in assessment monitoring during 2024.

1.1.4.3 40 CFR § 257.90(e)(6)(iv)(C) – Assessment of Corrective Measures Public Meeting

Provide the date when the public meeting was held for the assessment of corrective measures for the CCR unit; and

An assessment of corrective measures was not required for the FAL in 2024. Therefore, a public meeting was not held.

1.1.4.4 40 CFR § 257.90(e)(6)(iv)(D) – Completion of the Assessment of Corrective Measures

Provide the date when the assessment of corrective measures was completed for the CCR unit.

No assessment of corrective measures was required to be initiated in 2024 for this unit. The FAL remained in assessment monitoring during 2024.

1.1.5 40 CFR § 257.90(e)(6)(v) – Selection of Remedy

Whether a remedy was selected pursuant to § 257.97 during the current annual reporting period, and if so, the date of remedy selection; and

The FAL remains in assessment monitoring, and no remedy was required to be selected.

1.1.6 40 CFR § 257.90(e)(6)(vi) – Remedial Activities

Whether remedial activities were initiated or are ongoing pursuant to § 257.98 during the current annual reporting period.

No remedial activities were required at the FAL in 2024.

2. 40 CFR § 257.90 Applicability

2.1 40 CFR § 257.90(a)

All CCR landfills, CCR surface impoundments, and lateral expansions of CCR units are subject to the groundwater monitoring and corrective action requirements under §§ 257.90 through 257.99, except as provided in paragraph (g) [Suspension of groundwater monitoring requirements] of this section.

Evergy has installed and certified a groundwater monitoring system at the JEC FAL. The FAL is subject to the groundwater monitoring and corrective action requirements described under 40 CFR §§ 257.90 through 257.98. This document addresses the requirement for the Owner/Operator to prepare an Annual Report per § 257.90(e).

2.2 40 CFR § 257.90(e) – SUMMARY

Annual groundwater monitoring and corrective action report. For existing CCR landfills and existing CCR surface impoundments, no later than January 31, 2018, and annually thereafter, the owner or operator must prepare an annual groundwater monitoring and corrective action report. For new CCR landfills, new CCR surface impoundments, and all lateral expansions of CCR units, the owner or operator must prepare the initial annual groundwater monitoring and corrective action report no later than January 31 of the year following the calendar year a groundwater monitoring system has been established for such CCR unit as required by this subpart, and annually thereafter. For the preceding calendar year, the annual report must document the status of the groundwater monitoring and corrective action program for the CCR unit, summarize key actions completed, describe any problems encountered, discuss actions to resolve the problems, and project key activities for the upcoming year. For purposes of this section, the owner or operator has prepared the annual report when the report is placed in the facility's operating record as required by § 257.105(h)(1).

This Annual Report describes monitoring completed and actions taken for the groundwater monitoring system at the JEC FAL as required by the Rule. Groundwater sampling and analysis was conducted in accordance with the requirements described in § 257.93, and the status of the groundwater monitoring program described in § 257.94 and § 257.95 is also provided in this report. This Annual Report documents applicable groundwater-related activities completed in the calendar year 2024.

2.2.1 Status of the Groundwater Monitoring Program

The FAL remained in the assessment monitoring program during 2024.

2.2.2 Key Actions Completed

The 2023 Annual Groundwater Monitoring and Corrective Action Report was completed in January 2024. Statistical evaluation was completed in January 2024 on analytical data from the September 2023 semiannual assessment monitoring sampling event.

A semiannual assessment monitoring sampling event was completed in March 2024 for detected Appendix IV constituents identified from the June 2023 annual assessment monitoring sampling event. An additional sample from monitoring well MW-FAA-6 was collected in May 2024 to confirm analyte concentrations collected in March 2024. Statistical evaluation was completed in August 2024 on analytical data from the March 2024 semiannual assessment monitoring sampling event.

An annual assessment monitoring sampling event was completed in June 2024 to identify detected Appendix IV constituents for subsequent semiannual sampling events in September 2024 and planned for March 2025. Semiannual assessment monitoring sampling was completed in September 2024 for detected Appendix IV constituents identified during the June 2024 annual monitoring event. An additional sample from monitoring well MW-FAA-6 was collected in October 2024 to confirm analyte concentrations from a sample collected in September 2024. Statistical evaluation of the results from the September 2024 semiannual assessment monitoring sampling event are due to be completed in January 2025 and will be reported in the next annual report.

2.2.3 Problems Encountered

Problems encountered during groundwater monitoring activities in 2024 consisted of laboratory analytical errors during the March 2024 and September 2024 semiannual assessment monitoring sampling events that necessitated collection of a verification sample from monitoring well MW-FAA-6 in May 2024 and October 2024, respectively. This was the only issue that needed to be addressed at the FAL in 2024.

2.2.4 Actions to Resolve Problems

The resolution to problems encountered in 2024 included collection of a confirmation groundwater sample from MW-FAA-6, as described above. The analytical results for the sampling events were revised accordingly. No other problems were encountered at the FAL in 2024; therefore, no additional actions to resolve problems were required.

2.2.5 Project Key Activities for Upcoming Year

Key activities planned for 2025 include the completion of the 2024 Annual Groundwater Monitoring and Corrective Action Report, statistical evaluation of semiannual assessment monitoring analytical data collected in September 2024, semiannual assessment monitoring and subsequent statistical evaluations, and annual assessment monitoring.

2.3 40 CFR § 257.90(e) – INFORMATION

At a minimum, the annual groundwater monitoring and corrective action report must contain the following information, to the extent available:

2.3.1 40 CFR § 257.90(e)(1)

A map, aerial image, or diagram showing the CCR unit and all background (or upgradient) and downgradient monitoring wells, to include the well identification numbers, that are part of the groundwater monitoring program for the CCR unit;

As required by § 257.90(e)(1), a map showing the locations of the CCR unit and associated upgradient and downgradient monitoring wells for the FAL is included in this report as Figure 1.

2.3.2 40 CFR § 257.90(e)(2) – Monitoring System Changes

Identification of any monitoring wells that were installed or decommissioned during the preceding year, along with a narrative description of why those actions were taken;

No monitoring wells were installed or decommissioned during 2024.

2.3.3 40 CFR § 257.90(e)(3) – Summary of Sampling Events

In addition to all the monitoring data obtained under § 257.90 through § 257.98, a summary including the number of groundwater samples that were collected for analysis for each background and downgradient well, the dates the samples were collected, and whether the sample was required by the detection monitoring or assessment monitoring programs;

In accordance with § 257.95(b) and § 257.95(d)(1), three independent assessment monitoring samples from each background and downgradient monitoring well were collected in 2024. A summary including sample names, dates of sample collection, field parameters, and monitoring data obtained for the groundwater monitoring program for the FAL is presented in Table I of this report, with corresponding laboratory analytical reports provided in Attachment 2. Groundwater potentiometric elevation contour maps which include calculated groundwater flow rates and directions, associated with each groundwater monitoring sampling event in 2024 are provided in Figures 2 through 4.

2.3.4 40 CFR § 257.90(e)(4) – Monitoring Transition Narrative

A narrative discussion of any transition between monitoring programs (e.g., the date and circumstances for transitioning from detection monitoring to assessment monitoring in addition to identifying the constituent(s) detected at a statistically significant increase over background levels); and

The assessment monitoring program was initiated on July 17, 2018 with a notification establishing assessment monitoring provided on August 15, 2018 to meet the requirements of 40 CFR § 257.95. The FAL remained in assessment monitoring during 2024.

2.3.5 40 CFR § 257.90(e)(5) – Other Requirements

Other information required to be included in the annual report as specified in § 257.90 through § 257.98.

This Annual Report documents activities conducted to comply with §§ 257.90 through 257.95 of the Rule. It is understood that there are supplemental references in §§ 257.90 through 257.98 that must be placed in the Annual Report. The following requirements include relevant and required information in the Annual Report for activities completed in calendar year 2024.

2.3.5.1 40 CFR § 257.94(d)(3) – Demonstration for Alternative Detection Monitoring Frequency

The owner or operator must obtain a certification from a qualified professional engineer or approval from the Participating State Director or approval from EPA where EPA is the permitting authority stating that the demonstration for an alternative groundwater sampling and analysis frequency meets the requirements of this section. The owner or operator must include the demonstration providing the basis for the alternative monitoring frequency and the certification by a qualified professional engineer or the approval from the Participating State Director or approval from EPA where EPA is the permitting authority in the annual groundwater monitoring and corrective action report required by § 257.90(e).

An alternative groundwater detection monitoring sampling and analysis frequency has not been established for this CCR unit. Therefore, no demonstration or certification is applicable.

2.3.5.2 40 CFR § 257.94(e)(2) – Detection Monitoring Alternate Source Demonstration

The owner or operator may demonstrate that a source other than the CCR unit caused the statistically significant increase over background levels for a constituent or that the statistically significant increase resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. The owner or operator must complete the written demonstration within 90 days of detecting a statistically significant increase over background levels to include obtaining a certification from a qualified professional engineer or approval from the Participating State Director or approval from EPA where EPA is the permitting authority verifying the accuracy of the information in the report. If a successful demonstration is completed within the 90-day period, the owner or operator of the CCR unit may continue with a detection monitoring program under this section. If a successful demonstration is not completed within the 90-day period, the owner or operator of the CCR unit must initiate an assessment monitoring program as required under § 257.95. The owner or operator must also include the demonstration in the annual groundwater monitoring and corrective action report required by § 257.90(e), in addition to the certification by a qualified professional engineer or approval from the Participating State Director or approval from EPA where EPA is the permitting authority.

This unit is in assessment monitoring. Therefore, no detection monitoring alternative source demonstration or certification is applicable.

2.3.5.3 40 CFR § 257.95(c)(3) – Demonstration for Alternative Assessment Monitoring Frequency

The owner or operator must obtain a certification from a qualified professional engineer or approval from the Participating State Director or approval from EPA where EPA is the permitting authority stating that the demonstration for an alternative groundwater sampling and analysis frequency meets the requirements of this section. The owner or operator must include the demonstration providing the basis for the alternative monitoring frequency and the certification by a qualified professional engineer or the approval from the Participating State Director or approval from EPA where EPA is the permitting authority in the annual groundwater monitoring and corrective action report required by § 257.90(e).

An alternative groundwater assessment monitoring sampling and analysis frequency has not been established for this CCR unit. Therefore, no demonstration or certification is applicable.

2.3.5.4 40 CFR § 257.95(d)(3) – Assessment Monitoring Concentrations and Groundwater Protection Standards

Include the recorded concentrations required by paragraph (d)(1) of this section, identify the background concentrations established under § 257.94(b), and identify the groundwater protection standards established under paragraph (d)(2) of this section in the annual groundwater monitoring and corrective action report required by § 257.90(e).

An assessment monitoring program has been implemented at the CCR unit since July 17, 2018. Three rounds of assessment monitoring sampling were completed in 2024. Analytical results for both downgradient and upgradient wells are provided in Table I. The background concentrations (upper tolerance limits) and groundwater protection standards (GWPS) established for detected Appendix IV constituents for the FAL are included in Tables II and III. The background concentrations and GWPS values provided in Table II and Table III were utilized for the statistical evaluations completed in 2024 for the September 2023 and March 2024 semiannual assessment monitoring events, respectively.

2.3.5.5 40 CFR § 257.95(g)(3)(ii) – Assessment Monitoring Alternate Source Demonstration

Demonstrate that a source other than the CCR unit caused the contamination, or that the statistically significant increase resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Any such demonstration must be supported by a report that includes the factual or evidentiary basis for any conclusions and must be certified to be accurate by a qualified professional engineer or approval from the Participating State Director or approval from EPA where EPA is the permitting authority. If a successful demonstration is made, the owner or operator must continue monitoring in accordance with the assessment monitoring program pursuant to this section, and may return to detection monitoring if the constituents in appendices III and IV to this part are at or below background as specified in paragraph (e) of this section. The owner or operator must also include the demonstration in the annual groundwater monitoring and corrective action report required by § 257.90(e), in addition to the certification by a qualified professional engineer or the approval from the Participating State Director or approval from EPA where EPA is the permitting authority.

No assessment monitoring alternative source demonstration or certification was required in 2024. The FAL remained in assessment monitoring during 2024.

2.3.5.6 40 CFR § 257.96(a) – Demonstration for Additional Time for Assessment of Corrective Measures

Within 90 days of finding that any constituent listed in Appendix IV to this part has been detected at a statistically significant level exceeding the groundwater protection standard defined under § 257.95(h), or immediately upon detection of a release from a CCR unit, the owner or operator must initiate an assessment of corrective measures to prevent further releases, to remediate any releases and to restore affected area to original conditions. The assessment of corrective measures must be completed within 90 days, unless the owner or operator demonstrates the need for additional time to complete the assessment of corrective measures due to site-specific conditions or circumstances. The owner or operator must obtain a certification from a qualified professional engineer or approval from the Participating State Director or approval from EPA where EPA is the permitting authority attesting that the demonstration is accurate. The 90-day deadline to complete the assessment of corrective measures may be extended for no longer than 60 days. The owner or operator must also include the demonstration in the annual groundwater monitoring and corrective action report required by § 257.90(e), in addition to the certification by a qualified professional engineer or the approval from the Participating State Director or approval from EPA where EPA is the permitting authority.

No assessment of corrective measures was required to be initiated in 2024. Therefore, no demonstration or certification is applicable for this unit.

TABLES

TABLE I

SUMMARY OF ANALYTICAL RESULTS - 2024 ASSESSMENT MONITORING

EVERGY KANSAS CENTRAL, INC.

JEFFREY ENERGY CENTER, FLY ASH LANDFILL

ST. MARYS, KANSAS

Location	Upgradient			Downgradient													
	MW-FAA-5[1]			MW-FAA-3			MW-FAA-4			MW-FAA-6							
Measure Point (TOC)	1250.80			1165.66			1213.81			1162.76							
Sample Name	FAA-5-031424	FAA-5-061924	FAA-5-090424	FAA-3-031424	FAA-3-061924	FAA-3-090424	FAA-4-031324	FAA-4-061924	FAA-4-090424	FAA-6-031424	JEC-FAA-DUP-031424	FAA-6	FAA-6-061924	JEC-FAA-DUP-061924	FAA-6-090424	JEC-FAA-DUP-090424	FAA-6-102324
Sample Date	3/13/2024	6/19/2024	9/4/2024	3/14/2024	6/19/2024	9/4/2024	3/13/2024	6/19/2024	9/4/2024	3/14/2024	3/14/2024	5/14/2024	6/19/2024	6/19/2024	9/4/2024	9/4/2024	10/23/2024
Final Lab Report Date	3/28/2024	7/5/2024	9/20/2024	3/28/2024	7/5/2024	9/20/2024	3/28/2024	7/5/2024	9/20/2024	3/28/2024	3/28/2024	6/2/2024	7/5/2024	7/5/2024	9/20/2024	9/20/2024	10/29/2024
Final Lab Report Revision Date	4/26/2024	8/1/2024	N/A	4/26/2024	8/1/2024	N/A	4/26/2024	8/1/2024	N/A	4/26/2024	4/26/2024	N/A	8/1/2024	8/1/2024	N/A	N/A	N/A
Final Radiation Lab Report Date	4/3/2024	7/19/2024	10/1/2024	4/10/2023	7/19/2024	N/A	4/10/2023	7/19/2024	N/A	4/10/2023	4/10/2023	N/A	7/19/2024	7/19/2024	N/A	N/A	N/A
Lab Data Reviewed and Validated	6/17/2024	9/10/2024	11/14/2024	6/17/2024	9/10/2024	11/14/2024	6/17/2024	9/10/2024	11/14/2024	6/17/2024	6/17/2024	6/17/2024	9/10/2024	9/10/2024	11/14/2024	11/14/2024	11/14/2024
Depth to Water (ft btoc)	86.85	87.06	86.84	17.93	12.55	12.75	56.46	55.09	56.34	13.85	13.85	13.94	13.72	13.72	13.60	13.60	14.63
Temperature (Deg C)	14.70	16.47	17.35	14.00	16.78	19.49	16.41	17.32	20.63	14.88	-	15.91	16.79	-	17.79	-	16.72
Conductivity (µS/cm)	3920	3490	3510	2600	2280	2230	1800	1640	1640	2990	-	2260	2760	-	3017	-	3780
Turbidity (NTU)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	-	0.0	0.0	-	0.0	-	0.0
Dissolved Oxygen, Field (mg/L)	0.82	1.49	0.00	0.00	0.62	0.00	0.43	0.00	1.24	0.00	-	0.51	3.92	-	0.00	-	0.00
ORP, Field (mV)	174	111	77	173	44	28	47	90	59	-140	-	-78	-178	-	-194	-	-214
pH, Field (su)	6.92	6.48	6.90	7.00	6.69	7.19	6.56	6.79	7.19	8.46	-	7.91	7.95	-	8.70	-	8.64
Boron, Total (mg/L)	**1.7**	< 0.0010	**1.7**	**0.51**	< 0.0010	**0.52**	**0.59**	< 0.0010	**0.51**	**3.6**	**3.4**	**-**	< 0.0010	< 0.0010	**3.8**	**4.0**	**-**
Calcium, Total (mg/L)	**525**	-	**518**	**307**	-	**320**	**190**	-	**189**	**84.1**	**76.7**	**-**	-	-	**94.5**	**97.8**	**-**
Chloride (mg/L)	**89.3**	-	**84.0**	**170**	-	**175**	**125**	-	**126**	**116**	**80.1**	**-**	-	-	**61.5**	**61.2**	**-**
Fluoride (mg/L)	**0.93**	-	**0.79**	< 0.20	-	**0.30**	< 0.20	-	**0.26**	**0.55**	**0.59**	-	-	-	**1.0**	**1.0**	-
Sulfate (mg/L)	**2230**	**-**	**2110**	**874**	-	**880**	**478**	-	**460**	**1260**	**1260**	**-**	-	-	**1520**	**1590**	**-**
pH (su)	**6.8**	-	**6.8**	**7.3**	-	**7.1**	**7.3**	-	**7.2**	**8.2**	**8.0**	**-**	-	-	**8.5**	**8.2**	**-**
TDS (mg/L)	**2940**	-	**3420**	**1390**	-	**1640**	**1100**	-	**1200**	**1750**	**1270**	**-**	-	-	**2450**	**2430**	**-**
Antimony, Total (mg/L)	-	< 0.0010	-	**-**	< 0.0010	-	-	< 0.0010	-	-	-	-	**0.0099**	**0.010**	-	-	-
Arsenic (mg/L)	0.0012	-	**0.0012**	**0.0011**	-	**0.0011**	< 0.0010	-	< 0.0010	**0.012**	**0.012**	**0.0084**	-	-	**0.011**	**0.011**	**0.010**
Barium, Total (mg/L)	< 0.0050	< 0.0050	< 0.0050	**0.027**	**0.025**	**0.028**	**0.050**	**0.044**	**0.049**	**0.019**	**0.018**	**-**	**0.019**	**0.018**	**0.021**	**0.022**	-
Beryllium, Total (mg/L)	-	< 0.0010	-	-	< 0.0010	**-**	-	< 0.0010	**-**	-	-	-	< 0.0010	< 0.0010	-	**-**	**-**
Cadmium, Total (mg/L)	-	< 0.00050	-	-	< 0.00050	**-**	-	< 0.00050	**-**	-	-	-	< 0.00050	< 0.00050	**-**	**-**	**-**
Chromium, Total (mg/L)	-	< 0.0050	-	-	< 0.0050	**-**	-	< 0.0050	**-**	-	-	-	< 0.0050	< 0.0050	**-**	**-**	**-**
Cobalt, Total (mg/L)	**0.0014**	**0.0022**	**0.0025**	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	**-**	< 0.0010	< 0.0010	< 0.0010	< 0.0010	**-**
Lead, Total (mg/L)	-	< 0.010	-	-	< 0.010	**-**	-	< 0.010	**-**	-	-	-	< 0.010	< 0.010	**-**	**-**	**-**
Fluoride (mg/L)	-	**1.3**	-	-	**0.63**	-	-	< 0.20	-	0.55	0.59	-	< 0.20	< 0.20	-	-	**-**
Lithium, Total (mg/L)	**0.14**	**0.15**	**0.14**	**0.015**	**0.020**	**0.015**	**0.024**	**0.026**	**0.023**	< 0.010	< 0.010	**-**	< 0.010	< 0.010	< 0.010	< 0.010	**-**
Molybdenum, Total (mg/L)	**0.017**	**0.022**	**0.021**	**0.0049**	**0.0039**	**0.0042**	**0.0073**	**0.0079**	**0.0060**	**0.35**	**0.35**	**-**	**0.36**	**0.37**	**0.60**	**0.61**	**0.55**
Selenium, Total (mg/L)	-	< 0.0010	-	-	< 0.0010	**-**	-	< 0.0010	**-**	-	-	-	< 0.0010	< 0.0010	**-**	**-**	**-**
Thallium, Total (mg/L)	-	< 0.0010	-	-	< 0.0010	**-**	-	< 0.0010	**-**	-	-	-	< 0.0010	< 0.0010	-	-	**-**
Mercury, Total (mg/L)	<0.00020	< 0.00020	< 0.00020	<0.00020	< 0.00020	< 0.00020	**0.0012**	**0.00091**	**0.0015**	<0.00020	<0.00020	-	< 0.00020	< 0.00020	< 0.00020	< 0.00020	**-**
Radium-226 & 228 Combined (pCi/L)	0.826 ± 0.813 (1.40)	0.492 ± 0.811 (1.52)	1.22 ± 1.27 (2.21)	0.759 ± 0.799 (1.49)	0.881 ± 0.804 (1.51)	-	0.488 ± 0.843 (1.72)	0.680 ± 0.798 (1.51)	-	0.684 ± 0.947 (1.99)	0.998 ± 0.887 (1.48)	-	0.954 ± 0.955 (1.71)	0.737 ± 0.884 (1.64)	-	-	-

Notes:

Bold value: *Detection above laboratory reporting limit or minimum detectable concentration (MDC) .*

Radiological results are presented as activity plus or minus uncertainty with MDC.

[1] *= Additional constituents provided in the laboratory report were utilized for analysis at other units and are not applicable to the current FAL groundwater monitoring program; therefore, those constituents are not provided in this table.*

µS/cm = micro Siemens per centimeter

Deg C = degrees Celsius

ft btoc = feet below top of casing

mg/L = milligrams per liter

mV = millivolt

N/A = Not Applicable

NTU = Nephelometric Turbidity Unit

ORP = oxidation reduction potential

pCi/L = picoCuries per liter

su = standard unit

TDS = total dissolved solids

TOC = top of casing

TABLE II
ASSESSMENT GROUNDWATER MONITORING - DETECTED APPENDIX IV GWPS
SEPTEMBER 2023 SAMPLING EVENT
JEFFREY ENERGY CENTER FLY ASH LANDFILL
ST. MARYS, KANSAS

Well Number	Background Value[1]	GWPS
CCR Appendix-IV Arsenic, Total (mg/L)		
MW-FAA-5 (upgradient)	0.005	NA
MW-FAA-3		0.010
MW-FAA-4		0.010
MW-FAA-6		0.010
CCR Appendix-IV Barium, Total (mg/L)		
MW-FAA-5 (upgradient)	0.013	NA
MW-FAA-3		2
MW-FAA-4		2
MW-FAA-6		2
CCR Appendix-IV Cobalt, Total (mg/L)		
MW-FAA-5 (upgradient)	0.0051	NA
MW-FAA-3		0.006
MW-FAA-4		0.006
MW-FAA-6		0.006
CCR Appendix-IV Lithium, Total (mg/L)		
MW-FAA-5 (upgradient)	0.171	NA
MW-FAA-3		0.171
MW-FAA-4		0.171
MW-FAA-6		0.171
CCR Appendix-IV Mercury, Total (mg/L)		
MW-FAA-5 (upgradient)	0.0002	NA
MW-FAA-3		0.002
MW-FAA-4		0.002
MW-FAA-6		0.002
CCR Appendix-IV Molybdenum, Total (mg/L)		
MW-FAA-5 (upgradient)	0.056	NA
MW-FAA-3		0.100
MW-FAA-4		0.100
MW-FAA-6	0.844[2]	0.844
CCR Appendix-IV Radium-226 & 228 Combined (pCi/L)		
MW-FAA-5 (upgradient)	2.187	NA
MW-FAA-3		5
MW-FAA-4		5
MW-FAA-6		5

Notes:

[1] Interwell background data collected from 08/19/2016 through 09/08/2022, unless otherwise noted.

[2] Intrawell background data collected from 08/19/2016 through 06/06/2023.

CCR = coal combustion residuals

GWPS = groundwater protection standard

MCL = maximum contaminant level

mg/L = milligrams per liter

NA = Not Applicable

pCi/L = picoCuries per liter

TABLE III
ASSESSMENT GROUNDWATER MONITORING - DETECTED APPENDIX IV GWPS
MARCH 2024 SAMPLING EVENT
JEFFREY ENERGY CENTER FLY ASH LANDFILL
ST. MARYS, KANSAS

Well Number	Background Value[1]	GWPS
CCR Appendix-IV Arsenic, Total (mg/L)		
MW-FAA-5 (upgradient)	0.0054	NA
MW-FAA-3		0.010
MW-FAA-4		0.010
MW-FAA-6		0.010
CCR Appendix-IV Barium, Total (mg/L)		
MW-FAA-5 (upgradient)	0.013	NA
MW-FAA-3		2
MW-FAA-4		2
MW-FAA-6		2
CCR Appendix-IV Cobalt, Total (mg/L)		
MW-FAA-5 (upgradient)	0.0049	NA
MW-FAA-3		0.006
MW-FAA-4		0.006
MW-FAA-6		0.006
CCR Appendix-IV Lithium, Total (mg/L)		
MW-FAA-5 (upgradient)	0.173	NA
MW-FAA-3		0.173
MW-FAA-4		0.173
MW-FAA-6		0.173
CCR Appendix-IV Mercury, Total (mg/L)		
MW-FAA-5 (upgradient)	0.0002	NA
MW-FAA-3		0.002
MW-FAA-4		0.002
MW-FAA-6		0.002
CCR Appendix-IV Molybdenum, Total (mg/L)		
MW-FAA-5 (upgradient)	0.067	NA
MW-FAA-3		0.100
MW-FAA-4		0.100
MW-FAA-6	0.844[2]	0.844
CCR Appendix-IV Radium-226 & 228 Combined (pCi/L)		
MW-FAA-5 (upgradient)	2.190	NA
MW-FAA-3		5
MW-FAA-4		5
MW-FAA-6		5

Notes:

[1] Interwell background data collected from 08/19/2016 through 03/14/2024, unless otherwise noted.

[2] Intrawell background data collected from 08/19/2016 through 06/06/2023.

CCR = coal combustion residuals

GWPS = groundwater protection standard

MCL = maximum contaminant level

mg/L = milligrams per liter

NA = Not Applicable

pCi/L = picoCuries per liter

FIGURES

LEGEND

- MONITORING WELL
- PIEZOMETER OBSERVATION ONLY
- FLY ASH LANDFILL BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. AERIAL IMAGERY SOURCE: ESRI, 17 NOVEMBER 2023

N

0 400 800

SCALE IN FEET

HALEY ALDRICH

EVERGY KANSAS CENTRAL, INC.
JEFFREY ENERGY CENTER
ST. MARYS, KANSAS

FLY ASH LANDFILL
MONITORING WELL LOCATION MAP

evergy

JANUARY 2025

FIGURE 1

G:\S:\haleyaldrich.com\share\phx_common\Projects\Westar\GIS\Jeffrey Energy Center\Maps\2024 011129778 054 0001 FAL MONITORING WELL LOCATION MAP.mxd - khensen - 1/20/2025 12:50:03 PM

LEGEND

- MONITORING WELL
- PIEZOMETER OBSERVATION ONLY
- ESTIMATED GROUNDWATER POTENTIOMETRIC OBSERVATION ELEVATION CONTOUR, IN FEET
- GROUNDWATER FLOW DIRECTION AND APPROXIMATE GROUNDWATER FLOW RATE (FEET/YEAR)
- FLY ASH LANDFILL BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.

2. GROUNDWATER POTENTIOMETRIC ELEVATIONS WERE MEASURED 13 - 14 MARCH 2024.

3. THE GROUNDWATER FLOW RATE WAS APPROXIMATED USING THE HYDRAULIC GRADIENT CALCULATED FROM GROUNDWATER POTENTIOMETRIC ELEVATIONS MEASURED 13 - 14 MARCH 2024 AND THE CONDUCTIVITY VALUES AND EFFECTIVE POROSITY VALUES OBTAINED FROM SLUG TESTS COMPLETED APRIL 2016.

4. GROUNDWATER ELEVATION IN **BOLD BLUE TEXT** AND IN FEET ABOVE MEAN SEA LEVEL (AMSL).

5. AERIAL IMAGERY SOURCE: ESRI, 17 NOVEMBER 2023

N

0 400 800

SCALE IN FEET

HALEY ALDRICH

EVERGY KANSAS CENTRAL, INC.
JEFFREY ENERGY CENTER
ST. MARYS, KANSAS

FLY ASH LANDFILL GROUNDWATER POTENTIOMETRIC ELEVATION CONTOUR MAP MARCH 13 - 14, 2024

evergy

JANUARY 2025

FIGURE 2

GIS: \\haleyaldrich.com\share\phx_common\Projects\Westar\GIS\Jeffrey Energy Center\Maps\2024 041129778 054 0001 FAL GDWTR CONTOUR MAP MARCH 2024.mxd - khensen - 1/20/2025 2:13:05 PM

LEGEND

- MONITORING WELL
- PIEZOMETER OBSERVATION ONLY
- ESTIMATED GROUNDWATER POTENTIOMETRIC OBSERVATION ELEVATION CONTOUR, IN FEET
- GROUNDWATER FLOW DIRECTION AND APPROXIMATE GROUNDWATER FLOW RATE (FEET/YEAR)
- FLY ASH LANDFILL BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.

2. GROUNDWATER POTENTIOMETRIC ELEVATIONS WERE MEASURED 19 JUNE, 2024.

3. THE GROUNDWATER FLOW RATE WAS APPROXIMATED USING THE HYDRAULIC GRADIENT CALCULATED FROM GROUNDWATER POTENTIOMETRIC ELEVATIONS MEASURED 19 JUNE, 2024 AND THE CONDUCTIVITY VALUES AND EFFECTIVE POROSITY VALUES OBTAINED FROM SLUG TESTS COMPLETED APRIL 2016.

4. GROUNDWATER ELEVATION IN **BOLD BLUE TEXT** AND IN FEET ABOVE MEAN SEA LEVEL (AMSL).

5. AERIAL IMAGERY SOURCE: ESRI, 17 NOVEMBER 2023

N

0 400 800
SCALE IN FEET

HALEY ALDRICH

EVERGY KANSAS CENTRAL, INC.
JEFFREY ENERGY CENTER
ST. MARYS, KANSAS

FLY ASH LANDFILL GROUNDWATER POTENTIOMETRIC ELEVATION CONTOUR MAP JUNE 19, 2024

evergy

JANUARY 2025

FIGURE 3

GIS: \\haleyaldrich.com\share\phx_common\Projects\Westar\GIS\Jeffrey Energy Center\Maps\2024 09\129778 054 0001 FAL GDWTR CONTOUR MAP JUNE 2024.mxd - khensen - 1/20/2025 2:33:06 PM

LEGEND

- MONITORING WELL
- PIEZOMETER OBSERVATION ONLY
- ESTIMATED GROUNDWATER POTENTIOMETRIC OBSERVAITON CONTOUR, IN FEET
- GROUNDWATER FLOW DIRECTION AND APPROXIMATE GROUNDWATER FLOW RATE (FEET/YEAR)
- FLY ASH LANDFILL BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.

2. GROUNDWATER POTENTIOMETRIC ELEVATIONS WERE MEASURED 4 SEPTEMBER 2024.

3. THE GROUNDWATER FLOW RATE WAS APPROXIMATED USING THE HYDRAULIC GRADIENT CALCULATED FROM GROUNDWATER POTENTIOMETRIC ELEVATIONS MEASURED 4 SEPTEMBER 2024 AND THE CONDUCTIVITY VALUES AND EFFECTIVE POROSITY VALUES OBTAINED FROM SLUG TESTS COMPLETED APRIL 2016.

4. GROUNDWATER ELEVATION IN **BOLD BLUE TEXT** AND IN FEET ABOVE MEAN SEA LEVEL (AMSL).

5. AERIAL IMAGERY SOURCE: ESRI, 17 NOVEMBER 2023

N

0 400 800
SCALE IN FEET

HALEY ALDRICH

EVERGY KANSAS CENTRAL, INC.
JEFFREY ENERGY CENTER
ST. MARYS, KANSAS

FLY ASH LANDFILL GROUNDWATER POTENTIOMETRIC ELEVATION CONTOUR MAP SEPTEMBER 4, 2024

evergy

JANUARY 2025

FIGURE 4

ATTACHMENT 1
Statistical Analyses

ATTACHMENT 1-1
September 2023 Semiannual Groundwater Assessment Monitoring Data Statistical Evaluation

HALEY & ALDRICH, INC.
6500 Rockside Road
Suite 200
Cleveland, OH 44131
216.739.0555

TECHNICAL MEMORANDUM

February 6, 2024
File No. 129778-050

TO: Evergy Kansas Central, Inc.
Jared Morrison – Director, Water and Waste Programs

FROM: Haley & Aldrich, Inc.
Steven F. Putrich, P.E., Principal Consultant – Engineering Principal
Mark Nicholls, P.G., Principal Consultant –Hydrogeologist

SUBJECT: September 2023 Semiannual Groundwater Assessment Monitoring Data Statistical Evaluation
Completed January 5, 2024
Jeffrey Energy Center
Fly Ash Landfill

Pursuant to Title 40 Code of Federal Regulations (40 CFR) §§ 257.93 and 257.95 (Rule), this memorandum summarizes the statistical evaluation of the analytical results for the **September 2023** semiannual assessment monitoring groundwater sampling event for the Jeffrey Energy Center (JEC) Fly Ash Landfill (FAL). This semiannual assessment monitoring groundwater sampling event was completed on **September 6, 2023**. All laboratory results were received and validated on **January 5, 2024**.

The statistical evaluation discussed in this memorandum was conducted to determine if Appendix IV groundwater monitoring constituents have been detected in downgradient wells at concentrations that represent a statistically significant increase (SSI) above background values and if one or more of the constituents have been detected at a statistically significant level (SSL) above the groundwater protection standard (GWPS) consistent with the requirements of the Rule. GWPS values for each of the Appendix IV constituents have been set equal to the highest value of the maximum contaminant level, levels provided in 40 CFR § 257.95(h)(2) (from regional screening levels), or background concentrations.

Statistical Evaluation of Appendix IV Constituents

The Rule provides four specific options for statistical evaluation of groundwater quality data collected at a coal combustion residual (CCR) unit (40 CFR § 257.93(f)(1-4)). The statistical method used for these evaluations (tolerance limit [TL]) was certified by Haley & Aldrich, Inc. on January 14, 2019. The TL method, as determined applicable for this sampling event, was used to evaluate potential SSLs above background. Background levels for each constituent listed in Appendix IV were computed as upper tolerance limits (UTL), and a minimum 95 percent confidence coefficient and 95 percent coverage. The

most recent groundwater sampling event from each compliance well was compared to the corresponding background UTL to determine if a SSL existed.

STATISTICAL EVALUATION

Interwell or intrawell evaluation methods were used to determine SSLs based on the documented groundwater quality variability at each well. Interwell evaluation compares the most recent values from downgradient compliance wells against a background dataset composed of upgradient well data, and the intrawell evaluation compares the most recent values from each compliance well against a background dataset composed of historical data from the subject well. Because the CCR unit has transitioned into assessment monitoring, no statistical evaluations were conducted on Appendix III (detection monitoring) semiannual assessment monitoring data.

The TL method was used to complete statistical evaluations of the referenced dataset. The TL procedure is one in which a concentration limit for each constituent is established from the distribution of the background data, with a minimum 95 percent confidence level. The upper endpoint of a tolerance interval is called the UTL. Depending on the data distribution, parametric or non-parametric TL procedures are used to evaluate groundwater monitoring data using this method. Parametric TLs utilize normally distributed data or normalized data via a transformation of the sample background data used to construct the limit. If the data are non-normal and a transformation is not indicated, non-parametric procedures (order statistics or bootstrap methods) are used to calculate the TL. If all the background data are non-detect, a maximum reporting limit may serve as an appropriate UTL.

These statistical evaluations were conducted using a background dataset for all Appendix IV constituents that were detected in the annual assessment monitoring sample event using parametric TLs. If an Appendix IV constituent concentration from the **September 2023** sampling event was above the GWPS, the lower confidence limit (LCL) for the downgradient well constituent will be used to evaluate if a SSI is present. The LCL is the lower end of the confidence interval range, which is an estimated concentration range intended to contain the true mean or median of the population from which the sample is drawn. The confidence interval range is designed to locate the true population mean or median with a high degree of statistical confidence, or conversely, with a low probability of error.

The UTLs were calculated from the background well dataset using Chemstat software after testing for outlier sample results that would warrant removal from the dataset based on likely error in sampling or measurement. Both visual and statistical outlier tests for the background data were performed using Chemstat and U.S. Environmental Protection Agency's ProUCL 5.1 software, and a visual inspection of the data was performed using box plots and distribution plots for the downgradient sample data. No sample data were identified as outliers that warranted removal from the dataset.

BACKGROUND DISTRIBUTIONS

The groundwater analytical results for each sampling event from the background sample location MW-FAA-5 (for interwell evaluation) were pooled to calculate the UTL for each detected Appendix IV constituent. The variability and distribution of the pooled dataset were evaluated to determine the method for UTL calculation. In accordance with the document titled *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance,* March 2009, background concentrations were updated based on statistical evaluation of analytical results collected through **September 2022** for **interwell evaluation**. Background concentrations were updated through **June 2023** for **intrawell evaluation**.

RESULTS OF APPENDIX IV DOWNGRADIENT STATISTICAL COMPARISONS

Sample concentrations from the downgradient wells for each of the detected Appendix IV constituents from the **September 2023** semiannual assessment monitoring event were compared to their respective background UTLs and GWPSs (Table I). A sample concentration greater than the background UTL is considered to represent a SSI. A sample concentration greater than the GWPS is considered to represent a SSL. Based on previous compliance sampling events, statistical evaluations, and associated alternative source demonstrations, an intrawell comparison is utilized for FAA-6 for molybdenum statistical evaluations. Supporting statistical software output is included in Attachment 2. Interwell comparisons are being utilized for all other well and constituent evaluations. The results of the groundwater assessment monitoring statistical evaluation are provided in Table I. **Based on this statistical evaluation of groundwater sampling data collected in September 2023, no SSLs above GWPS occurred at the JEC FAL.**

Attachments:

Table I – Summary of Semiannual Assessment Groundwater Monitoring Statistical Evaluation

TABLE

TABLE I

SUMMARY OF SEMIANNUAL ASSESSMENT GROUNDWATER MONITORING STATISTICAL EVALUATION

SEPTEMBER 2023 SAMPLING EVENT

JEFFREY ENERGY CENTER FLY ASH LANDFILL

ST. MARYS, KANSAS

										MCL Comparison							Interwell Analysis		Intrawell Analysis		Groundwater Protection Standard	
Location Id	Frequency of Detection	Percent Non-Detects	Range of Non-Detect	Maximum Detect	Variance	Standard Deviation	Coefficient of Variance	CCR MCL or CFR § 257.95(h)(2)*	Report Result Unit	Number of Detection Exceedances	Number of Non-Detection Exceedances	Outlier Presence	Outlier Removed	Trend	Distribution Well	September 2023 Concentration (mg/L)	Background Limits[1] (UTL) mg/L	SSI	Background Limits[2] (UTL) mg/L	SSI	GWPS (Higher of MCL/ 40 CFR § 257.95(h)(2) or UTL)	SSL
CCR Appendix-IV: Arsenic, Total (mg/L)																						
MW-FAA-5 (upgradient)	13/25	48%	0.001-0.005	0.0054	0.000001673	0.001293	0.7901	0.010	mg/L	0	0	Yes	No	Stable	Non-parametric	<0.0010	0.005				0.010	
MW-FAA-3	3/25	88%	0.001-0.001	0.0011	7.707E-10	0.00002776	0.02777	0.010	mg/L	0	0	Yes	No	NT	Non-parametric	<0.0010		No				No
MW-FAA-4	0/25	100%	0.0005-0.001		0.00000001	0.0001	0.102	0.010	mg/L	0	0	NA	NA	NA	NA	<0.0010		No				No
MW-FAA-6	25/25	0%	-	0.01	0.000003351	0.001831	0.2955	0.010	mg/L	0	0	No	No	Stable	Non-parametric	0.0085		Yes				No
CCR Appendix-IV: Barium, Total (mg/L)																						
MW-FAA-5 (upgradient)	5/25	80%	0.005-0.01	0.013	0.000006196	0.002489	0.3899	2	mg/L	0	0	No	No	NT	Non-parametric	<0.0050	0.013				2	
MW-FAA-3	25/25	0%	-	0.047	0.00002161	0.004649	0.1458	2	mg/L	0	0	Yes	No	Stable	Normal	0.033		Yes				No
MW-FAA-4	25/25	0%	-	0.053	0.00000694	0.002634	0.0535	2	mg/L	0	0	No	No	Stable	Normal	0.051		Yes				No
MW-FAA-6	25/25	0%	-	0.067	0.0002811	0.01677	0.3999	2	mg/L	0	0	No	No	Decrease	Non-parametric	0.027		Yes				No
CCR Appendix-IV: Cobalt, Total (mg/L)																						
MW-FAA-5 (upgradient)	20/25	20%	0.001-0.005	0.0056	0.000002043	0.001429	0.5784	0.006	mg/L	0	0	No	No	Increase	Normal	0.0017	0.0051				0.006	
MW-FAA-3	2/25	92%	0.001-0.001	0.00058	1.56E-08	0.0001249	0.1296	0.006	mg/L	0	0	No	No	NT	Non-parametric	<0.0010		No				No
MW-FAA-4	10/25	60%	0.0005-0.001	0.0027	2.414E-07	0.0004913	0.3827	0.006	mg/L	0	0	No	No	Increase	NA	<0.0010		No				No
MW-FAA-6	24/25	4%	0.001-0.001	0.0021	1.025E-07	0.0003201	0.2215	0.006	mg/L	0	0	No	No	Stable	Normal	0.0012		No				No
CCR Appendix-IV: Lithium, Total (mg/L)																						
MW-FAA-5 (upgradient)	25/25	0%	-	0.16	0.0007519	0.02742	0.2178	0.040	mg/L	25	0	No	No	Stable	Normal	0.14	0.171				0.171	
MW-FAA-3	21/25	16%	0.01-0.03	0.023	0.00001844	0.004295	0.2704	0.040	mg/L	0	0	Yes	No	Stable	Normal	0.014		No				No
MW-FAA-4	22/25	12%	0.01-0.03	0.024	0.00001924	0.004387	0.2426	0.040	mg/L	0	0	No	No	Increase	Normal	0.020		No				No
MW-FAA-6	18/25	28%	0.01-0.03	0.016	0.00001894	0.004352	0.3317	0.040	mg/L	0	0	Yes	No	Stable	Non-parametric	0.010		No				No
CCR Appendix-IV: Mercury, Total (mg/L)																						
MW-FAA-5 (upgradient)	0/21	100%	8.3E-05-0.0002		6.519E-10	0.00002553	0.1313	0.002	mg/L	0	0	NA	NA	NA	NA	<0.00020	0.0002				0.002	
MW-FAA-3	0/17	100%	2.4E-05-0.0002		1.822E-09	0.00004269	0.2251	0.002	mg/L	0	0	NA	NA	NA	NA	<0.00020		No				No
MW-FAA-4	3/17	82%	0.0002-0.0002	0.00046	4.347E-09	0.00006593	0.2957	0.002	mg/L	0	0	No	No	NT	Non-parametric	0.00046		Yes				No
MW-FAA-6	0/17	100%	0.0002-0.0002		0	0	0	0.002	mg/L	0	0	NA	NA	NA	NA	<0.00020		No				No
CCR Appendix-IV: Molybdenum, Total (mg/L)																						
MW-FAA-5 (upgradient)	25/25	0%	-	0.067	0.0001891	0.01375	0.464	0.100	mg/L	0	0	No	No	Decrease	Normal	0.019	0.056				0.100	
MW-FAA-3	25/25	0%	-	0.014	0.000006503	0.00255	0.2837	0.100	mg/L	0	0	No	No	Decrease	Normal	0.0064		No				No
MW-FAA-4	25/25	0%	-	0.011	0.00000703	0.002651	0.4593	0.100	mg/L	0	0	No	No	Increase	Increasing	0.0072		No				No
MW-FAA-6	25/25	0%	-	0.59	0.0188	0.1371	0.358	0.100	mg/L	25	0	No	No	Decrease	Normal	0.29		Yes	0.844	N	0.844	No
CCR Appendix-IV: Radium-226 & 228 (pCi/L)																						
MW-FAA-5 (upgradient)	21/25	16%	0.374-1.79	2.43	0.2742	0.5236	0.4027	5	pCi/L	0	0	No	No	Stable	Normal	1.29	2.187				5	
MW-FAA-3	17/25	32%	0.246-0.857	1.792	0.1909	0.437	0.6689	5	pCi/L	0	0	No	No	Stable	Normal	1.27		No				No
MW-FAA-4	16/25	36%	0.00551-1.07	1.54	0.1492	0.3862	0.5517	5	pCi/L	0	0	No	No	Stable	Normal	0.701		No				No
MW-FAA-6	16/25	36%	0.0926-0.58	1.43	0.1728	0.4157	0.7518	5	pCi/L	0	0	No	No	Stable	Normal	0.0705		No				No

Notes:

[1] Based on background data collected from 08/19/2016 through 09/08/2022, unless otherwise noted.

[2] Based on background data collected from 08/19/2016 through 06/06/2023.

** Values obtained from U.S. Environmental Protection Agency Federal CCR Rule Title 40 Code of Federal Regulations (CFR) § 257.95(h)(2)*

CCR = coal combustion residuals

GWPS = Groundwater Protection Standard

MCL = maximum contaminant level

mg/L = milligrams per Liter

NA = not analyzed

pCi/L = picoCuries per Liter

SSI = statistically significant increase

SSL = statistically significant level

UTL = upper tolerance limits

ATTACHMENT 1-2
March 2024 Semiannual Groundwater Assessment Monitoring Data Statistical Evaluation

HALEY & ALDRICH, INC.
6500 Rockside Road
Suite 200
Cleveland, OH 44131
216.739.0555

TECHNICAL MEMORANDUM

August 14, 2024
File No. 0210308-000

TO: Evergy Kansas Central, Inc.
Jared Morrison – Director, Water and Waste Programs

FROM: Haley & Aldrich, Inc.
Steven F. Putrich, P.E., Principal Consultant – Engineering Principal
Mark Nicholls, P.G., Principal Consultant –Hydrogeologist

SUBJECT: March 2024 Semiannual Groundwater Assessment Monitoring Data
Statistical Evaluation
Completed July 29, 2024
Jeffrey Energy Center
Fly Ash Landfill

Pursuant to Title 40 Code of Federal Regulations (40 CFR) §§ 257.93 and 257.95 (Rule), this memorandum summarizes the statistical evaluation of the analytical results for the **March 2024** semiannual assessment monitoring groundwater sampling event for the Jeffrey Energy Center (JEC) Fly Ash Landfill (FAL). This semiannual assessment monitoring groundwater sampling event was completed on **March 13 – 14, 2024**. All laboratory results were received and validated on **July 17, 2024**. Well MW-FAA-6 was resampled on **May 14, 2024** to confirm the arsenic concentration collected on March 14, 2024.

The statistical evaluation discussed in this memorandum was conducted to determine if Appendix IV groundwater monitoring constituents have been detected in downgradient wells at concentrations that represent a statistically significant increase (SSI) above background values and if one or more of the constituents have been detected at a statistically significant level (SSL) above the groundwater protection standard (GWPS) consistent with the requirements of the Rule. GWPS values for each of the Appendix IV constituents have been set equal to the highest value of the maximum contaminant level, levels provided in 40 CFR § 257.95(h)(2) (from regional screening levels), or background concentrations.

Statistical Evaluation of Appendix IV Constituents

The Rule provides four specific options for statistical evaluation of groundwater quality data collected at a coal combustion residual (CCR) unit (40 CFR § 257.93(f)(1-4)). The statistical method used for these evaluations (tolerance limit [TL]) was certified by Haley & Aldrich, Inc. on January 14, 2019. The TL method, as determined applicable for this sampling event, was used to evaluate potential SSLs above

background. Background levels for each constituent listed in Appendix IV were computed as upper tolerance limits (UTL), and a minimum 95 percent confidence coefficient and 95 percent coverage. The most recent groundwater sampling event from each compliance well was compared to the corresponding background UTL to determine if a SSL existed.

STATISTICAL EVALUATION

Interwell or intrawell evaluation methods were used to determine SSLs based on the documented groundwater quality variability at each well. Interwell evaluation compares the most recent values from downgradient compliance wells against a background dataset composed of upgradient well data, and the intrawell evaluation compares the most recent values from each compliance well against a background dataset composed of historical data from the subject well. Because the CCR unit has transitioned into assessment monitoring, no statistical evaluations were conducted on Appendix III (detection monitoring) semiannual assessment monitoring data.

The TL method was used to complete statistical evaluations of the referenced dataset. The TL procedure is one in which a concentration limit for each constituent is established from the distribution of the background data, with a minimum 95 percent confidence level. The upper endpoint of a tolerance interval is called the UTL. Depending on the data distribution, parametric or non-parametric TL procedures are used to evaluate groundwater monitoring data using this method. Parametric TLs utilize normally distributed data or normalized data via a transformation of the sample background data used to construct the limit. If the data are non-normal and a transformation is not indicated, non-parametric procedures (order statistics or bootstrap methods) are used to calculate the TL. If all the background data are non-detect, a maximum reporting limit may serve as an appropriate UTL.

These statistical evaluations were conducted using a background dataset for all Appendix IV constituents that were detected in the annual assessment monitoring sample event using parametric TLs. If an Appendix IV constituent concentration from the **March 2024** sampling event was above the GWPS, the lower confidence limit (LCL) for the downgradient well constituent will be used to evaluate if a SSI is present. The LCL is the lower end of the confidence interval range, which is an estimated concentration range intended to contain the true mean or median of the population from which the sample is drawn. The confidence interval range is designed to locate the true population mean or median with a high degree of statistical confidence, or conversely, with a low probability of error.

The UTLs were calculated from the background well dataset using Chemstat software after testing for outlier sample results that would warrant removal from the dataset based on likely error in sampling or measurement. Both visual and statistical outlier tests for the background data were performed using Chemstat and U.S. Environmental Protection Agency's ProUCL 5.1 software, and a visual inspection of the data was performed using box plots and distribution plots for the downgradient sample data. No sample data were identified as outliers that warranted removal from the dataset.

BACKGROUND DISTRIBUTIONS

The groundwater analytical results for each sampling event from the background sample location MW-FAA-5 (for interwell evaluation) were pooled to calculate the UTL for each detected Appendix IV constituent. The variability and distribution of the pooled dataset were evaluated to determine the method for UTL calculation. In accordance with the document titled *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance,* March 2009, background concentrations were updated based on statistical evaluation of analytical results collected through **March 2024** for **interwell evaluation**. Background concentrations were updated through **June 2023** for **intrawell evaluation**.

RESULTS OF APPENDIX IV DOWNGRADIENT STATISTICAL COMPARISONS

Sample concentrations from the downgradient wells for each of the detected Appendix IV constituents from the **March 2024** semiannual assessment monitoring event were compared to their respective background UTLs and GWPSs (Table I). A sample concentration greater than the background UTL is considered to represent a SSI. A sample concentration greater than the GWPS is considered to represent a SSL. Based on previous compliance sampling events, statistical evaluations, and associated alternative source demonstrations, an intrawell comparison is utilized for FAA-6 for molybdenum statistical evaluations. Supporting statistical software output is included in Attachment 2. Interwell comparisons are being utilized for all other well and constituent evaluations. The results of the groundwater assessment monitoring statistical evaluation are provided in Table I. **Based on this statistical evaluation of groundwater sampling data collected in March 2024, no SSLs above GWPS occurred at the JEC FAL.**

Attachments:

Table I – Summary of Semiannual Assessment Groundwater Monitoring Statistical Evaluation

TABLE

TABLE I
SUMMARY OF SEMIANNUAL ASSESSMENT GROUNDWATER MONITORING STATISTICAL EVALUATION
MARCH 2024 SAMPLING EVENT
JEFFREY ENERGY CENTER FLY ASH LANDFILL
ST. MARYS, KANSAS

										MCL Comparison							Interwell Analysis		Intrawell Analysis		Groundwater Protection Standard	
Location Id	Frequency of Detection	Percent Non-Detects	Range of Non-Detect	Maximum Detect	Variance	Standard Deviation	Coefficient of Variance	CCR MCL or CFR § 257.95(h)(2)*	Report Result Unit	Number of Detection Exceedances	Number of Non-Detection Exceedances	Outlier Presence	Outlier Removed	Trend	Distribution Well	March 2024 Concentration (mg/L)	Background Limits[1] (UTL) mg/L	SSI	Background Limits[2] (UTL) mg/L	SSI	GWPS (Higher of MCL/ 40 CFR § 257.95(h)(2) or UTL)	SSL
CCR Appendix-IV: Arsenic, Total (mg/L)																						
MW-FAA-5	14/26	46%	0.001-0.005	0.0054	1.613E-06	0.00127	0.784	0.01	mg/L	0	0	Yes	No	Stable	Non-parametric	0.0012	0.0054				0.010	
MW-FAA-3	4/26	85%	0.001-0.001	0.0011	1.128E-09	0.00003358	0.03346	0.01	mg/L	0	0	Yes	No	NT	Non-parametric	0.0011		No				No
MW-FAA-4	0/26	100%	0.0005-0.001		9.615E-09	0.00009806	0.09998	0.01	mg/L	0	0	NA	NA	NA	NA	< 0.0010		No				No
MW-FAA-6	26/26	0%	-	0.01	3.404E-06	0.001845	0.2938	0.01	mg/L	0	0	Yes	No	Stable	Non-parametric	0.0084		Yes				No
CCR Appendix-IV: Barium, Total (mg/L)																						
MW-FAA-5	5/26	81%	0.005-0.01	0.013	6.022E-06	0.002454	0.3876	2	mg/L	0	0	Yes	No	NT	Non-parametric	< 0.0050	0.013				2	
MW-FAA-3	26/26	0%	-	0.047	0.00002166	0.004654	0.1469	2	mg/L	0	0	Yes	No	Stable	Normal	0.027		Yes				No
MW-FAA-4	26/26	0%	-	0.053	6.685E-06	0.002585	0.05248	2	mg/L	0	0	No	No	Stable	Normal	0.050		Yes				No
MW-FAA-6	26/26	0%	-	0.067	0.00029	0.01703	0.415	2	mg/L	0	0	Yes	No	Decrease	Non-parametric	0.019		Yes				No
CCR Appendix-IV: Cobalt, Total (mg/L)																						
MW-FAA-5	21/26	19%	0.001-0.005	0.0056	2.005E-06	0.001416	0.5828	0.006	mg/L	0	0	No	No	Stable	Normal	0.0014	0.0049				0.006	
MW-FAA-3	2/26	92%	0.001-0.001	0.00058	1.503E-08	0.0001226	0.127	0.006	mg/L	0	0	Yes	No	NT	Non-parametric	< 0.0010		No				No
MW-FAA-4	10/26	62%	0.0005-0.001	0.0027	2.348E-07	0.0004846	0.3807	0.006	mg/L	0	0	Yes	No	Increase	NA	< 0.0010		No				No
MW-FAA-6	24/26	8%	0.001-0.001	0.0021	1.06E-07	0.0003256	0.2279	0.006	mg/L	0	0	No	No	Stable	Normal	< 0.0010		No				No
CCR Appendix-IV: Lithium, Total (mg/L)																						
MW-FAA-5	26/26	0%	-	0.16	0.0007295	0.02701	0.2136	0.04	mg/L	26	0	No	No	Stable	Normal	0.14	0.173				0.173	
MW-FAA-3	22/26	15%	0.01-0.03	0.023	0.00001774	0.004211	0.2658	0.04	mg/L	0	0	Yes	No	Stable	Normal	0.015		No				No
MW-FAA-4	23/26	12%	0.01-0.03	0.024	0.00001982	0.004452	0.2432	0.04	mg/L	0	0	No	No	Increase	Normal	0.024		No				No
MW-FAA-6	18/26	31%	0.01-0.03	0.016	0.00001856	0.004308	0.3314	0.04	mg/L	0	0	Yes	No	Stable	Non-parametric	< 0.010		No				No
CCR Appendix-IV: Mercury, Total (mg/L)																						
MW-FAA-5	0/22	100%	8.3E-05-0.0002		6.222E-10	0.00002494	0.1281	0.002	mg/L	0	0	NA	NA	NA	NA	< 0.00020	0.0002				0.002	
MW-FAA-3	0/18	100%	2.4E-05-0.0002		1.721E-09	0.00004148	0.2181	0.002	mg/L	0	0	NA	NA	NA	NA	< 0.00020		No				No
MW-FAA-4	4/18	78%	0.0002-0.0002	0.0012	5.713E-08	0.000239	0.8622	0.002	mg/L	0	0	No	No	NT	Non-parametric	0.0012		Yes				No
MW-FAA-6	0/18	100%	0.0002-0.0002		0	0	0	0.002	mg/L	0	0	NA	NA	NA	NA	< 0.00020		No				No
CCR Appendix-IV: Molybdenum, Total (mg/L)																						
MW-FAA-5	26/26	0%	-	0.067	0.0001877	0.0137	0.4699	0.1	mg/L	0	0	No	No	Decrease	Non-parametric	0.017	0.067				0.100	
MW-FAA-3	26/26	0%	-	0.014	6.885E-06	0.002624	0.2971	0.1	mg/L	0	0	No	No	Decrease	Normal	0.0049		No				No
MW-FAA-4	26/26	0%	-	0.011	6.838E-06	0.002615	0.4485	0.1	mg/L	0	0	No	No	Increase	Normal	0.0073		No				No
MW-FAA-6	26/26	0%	-	0.59	0.01809	0.1345	0.3523	0.1	mg/L	26	0	No	No	Decrease	Normal	0.35		Yes	0.844	No	0.844	No
CCR Appendix-IV: Radium-226 & 228 (pCi/L)																						
MW-FAA-5	20/26	23%	0.374-1.79	2.43	0.2719	0.5214	0.4067	5	pCi/L	0	0	No	No	Stable	Normal	0.826	2.190				5	
MW-FAA-3	14/26	46%	0.246-1.27	1.792	0.1837	0.4286	0.6521	5	pCi/L	0	0	No	No	Stable	Normal	0.759		No				No
MW-FAA-4	14/26	46%	0.00551-1.07	1.54	0.1449	0.3807	0.5502	5	pCi/L	0	0	No	No	Stable	Normal	0.488		No				No
MW-FAA-6	14/26	46%	0.0705-0.58	1.43	0.1665	0.4081	0.7314	5	pCi/L	0	0	No	No	Stable	Normal	0.684		No				No

Notes:

[1] Based on background data collected from 08/19/2016 through 03/13/2024, unless otherwise noted.

[2] Based on background data collected from 08/19/2016 through 06/06/2023.

** Values obtained from U.S. Environmental Protection Agency Federal CCR Rule Title 40 Code of Federal Regulations (CFR) § 257.95(h)(2)*

CCR = coal combustion residuals

GWPS = Groundwater Protection Standard

MCL = maximum contaminant level

mg/L = milligrams per Liter

NA = not analyzed

pCi/L = picoCuries per Liter

SSI = statistically significant increase

SSL = statistically significant level

UTL = upper tolerance limits

ATTACHMENT 2
Laboratory Analytical Reports

ATTACHMENT 2-1
March 2024 Semiannual Sampling Event
Laboratory Analytical Report

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

April 26, 2024

Jake Humphrey
Evergy, Inc.
818 S Kansas Avenue
Topeka, KS 66612

RE: Project: JEC FAL CCR-Revised Report
Pace Project No.: 60449052

Dear Jake Humphrey:

Enclosed are the analytical results for sample(s) received by the laboratory on March 14, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Kansas City

REVISED to include mercury data. Chloride data was corrected for sample 60449052003 to report appropriate dilution.

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

Sincerely,

Alice Spiller

Alice Spiller
alice.spiller@pacelabs.com
(913)599-5665
PM Lab Management

Enclosures

cc: Shelly Gomez, Evergy
Laura Hines, Evergy, Inc.
Shannon Hughes, Evergy
Adam Irvin, Evergy
Samantha Kaney, Haley & Aldrich
Andrew Watson, Haley & Aldrich

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

CERTIFICATIONS

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60449052

Pace Analytical Services Kansas

9608 Loiret Boulevard, Lenexa, KS 66219
Arkansas Inorganic Drinking Water Certification
Arkansas Certification #: 88-00679
Colorado Division of Oil and Public Safety
Illinois Certification #: 2000302023-6
Iowa Certification #: 118
Kansas Field Laboratory Certification #: E-92587
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Missouri Inorganic Drinking Water Certification
Nevada Certification #: KS000212024-1
Oklahoma Certification #: 2023-073
Texas Certification #: T104704407-23-17
Utah Certification #: KS000212022-13

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE SUMMARY

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60449052

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60449052001	**FAA-3-031424**	Water	03/14/24 09:20	03/14/24 17:30
60449052002	**FAA-4-031324**	Water	03/13/24 16:30	03/14/24 17:30
60449052003	**FAA-6-031424**	Water	03/14/24 10:05	03/14/24 17:30
60449052004	**JEC-FAA-DUP-031424**	Water	03/14/24 10:05	03/14/24 17:30

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE ANALYTE COUNT

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60449052

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60449052001	**FAA-3-031424**	EPA 200.7	JXD	3	PASI-K
		EPA 6010	JXD	1	PASI-K
		EPA 200.8	JGP	3	PASI-K
		EPA 245.1	ACLC	1	PASI-K
		SM 2540C	KVI	1	PASI-K
		SM 4500-H+B	SR1	1	PASI-K
		EPA 300.0	PL	3	PASI-K
60449052002	**FAA-4-031324**	EPA 200.7	JXD	3	PASI-K
		EPA 6010	JXD	1	PASI-K
		EPA 200.8	JGP	3	PASI-K
		EPA 245.1	ACLC	1	PASI-K
		SM 2540C	KVI	1	PASI-K
		SM 4500-H+B	SR1	1	PASI-K
		EPA 300.0	PL	3	PASI-K
60449052003	**FAA-6-031424**	EPA 200.7	JXD	3	PASI-K
		EPA 6010	JXD	1	PASI-K
		EPA 200.8	JGP	3	PASI-K
		EPA 245.1	ACLC	1	PASI-K
		SM 2540C	KVI	1	PASI-K
		SM 4500-H+B	SR1	1	PASI-K
		EPA 300.0	PL, RKA	3	PASI-K
60449052004	**JEC-FAA-DUP-031424**	EPA 200.7	JXD	3	PASI-K
		EPA 6010	JXD	1	PASI-K
		EPA 200.8	JGP	3	PASI-K
		EPA 245.1	ACLC	1	PASI-K
		SM 2540C	KVI	1	PASI-K
		SM 4500-H+B	SR1	1	PASI-K
		EPA 300.0	PL, RKA	3	PASI-K

PASI-K = Pace Analytical Services - Kansas City

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60449052

Method: **EPA 200.7**
Description: 200.7 Metals, Total
Client: Evergy Kansas Central, Inc.
Date: April 26, 2024

General Information:
4 samples were analyzed for EPA 200.7 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 200.7 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

QC Batch: 886918

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60448981001,60449055001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 3510970)
  - Calcium

Additional Comments:

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60449052

Method: **EPA 6010**
Description: 6010 MET ICP
Client: Evergy Kansas Central, Inc.
Date: April 26, 2024

General Information:
4 samples were analyzed for EPA 6010 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Additional Comments:

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60449052

Method: **EPA 200.8**
Description: 200.8 MET ICPMS
Client: Evergy Kansas Central, Inc.
Date: April 26, 2024

General Information:
4 samples were analyzed for EPA 200.8 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 200.8 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60449052

Method: **EPA 245.1**
Description: 245.1 Mercury
Client: Evergy Kansas Central, Inc.
Date: April 26, 2024

General Information:
4 samples were analyzed for EPA 245.1 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 245.1 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Additional Comments:

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
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PROJECT NARRATIVE

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60449052

Method: **SM 2540C**
Description: 2540C Total Dissolved Solids
Client: Evergy Kansas Central, Inc.
Date: April 26, 2024

General Information:
4 samples were analyzed for SM 2540C by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

QC Batch: 887323

D6: The precision between the sample and sample duplicate exceeded laboratory control limits.

- DUP (Lab ID: 3512246)
  - Total Dissolved Solids

Additional Comments:

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60449052

Method: **SM 4500-H+B**
Description: 4500H+ pH, Electrometric
Client: Evergy Kansas Central, Inc.
Date: April 26, 2024

General Information:
4 samples were analyzed for SM 4500-H+B by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

H6: Analysis initiated outside of the 15 minute EPA required holding time.
- FAA-3-031424 (Lab ID: 60449052001)
- FAA-4-031324 (Lab ID: 60449052002)
- FAA-6-031424 (Lab ID: 60449052003)
- JEC-FAA-DUP-031424 (Lab ID: 60449052004)

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60449052

Method: **EPA 300.0**
Description: 300.0 IC Anions 28 Days
Client: Evergy Kansas Central, Inc.
Date: April 26, 2024

General Information:
4 samples were analyzed for EPA 300.0 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

QC Batch: 887337

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60449052001,60449065002

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 3512317)
  - Sulfate

Additional Comments:

Analyte Comments:

QC Batch: 887337

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- MS (Lab ID: 3512317)
  - Sulfate
- MSD (Lab ID: 3512318)
  - Sulfate

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60449052

Sample: FAA-3-031424 **Lab ID: 60449052001** Collected: 03/14/24 09:20 Received: 03/14/24 17:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City							
Barium, Total Recoverable	**0.027**	mg/L	0.0050	1	03/18/24 09:53	03/21/24 15:57	7440-39-3	
Boron, Total Recoverable	**0.51**	mg/L	0.10	1	03/18/24 09:53	03/21/24 15:57	7440-42-8	
Calcium, Total Recoverable	**307**	mg/L	0.20	1	03/18/24 09:53	03/21/24 15:57	7440-70-2	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Kansas City							
Lithium, Total Recoverable	**0.015**	mg/L	0.010	1	03/18/24 09:53	03/21/24 17:04	7439-93-2	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City							
Arsenic, Total Recoverable	**0.0011**	mg/L	0.0010	1	03/18/24 09:53	03/27/24 13:24	7440-38-2	
Cobalt, Total Recoverable	**<0.0010**	mg/L	0.0010	1	03/18/24 09:53	03/27/24 13:24	7440-48-4	
Molybdenum, Total Recoverable	**0.0049**	mg/L	0.0010	1	03/18/24 09:53	03/27/24 13:24	7439-98-7	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Kansas City							
Mercury	**<0.20**	ug/L	0.20	1	04/05/24 10:03	04/08/24 14:59	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City							
Total Dissolved Solids	**1390**	mg/L	40.0	1		03/21/24 11:36		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Kansas City							
pH at 25 Degrees C	**7.3**	Std. Units	0.10	1		03/20/24 11:41		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City							
Chloride	**170**	mg/L	50.0	50		03/21/24 09:47	16887-00-6	
Fluoride	**<0.20**	mg/L	0.20	1		03/21/24 09:11	16984-48-8	
Sulfate	**874**	mg/L	50.0	50		03/21/24 09:47	14808-79-8	M1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60449052

Sample: FAA-4-031324 **Lab ID: 60449052002** Collected: 03/13/24 16:30 Received: 03/14/24 17:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City							
Barium, Total Recoverable	**0.050**	mg/L	0.0050	1	03/18/24 09:53	03/21/24 16:06	7440-39-3	
Boron, Total Recoverable	**0.59**	mg/L	0.10	1	03/18/24 09:53	03/21/24 16:06	7440-42-8	
Calcium, Total Recoverable	**190**	mg/L	0.20	1	03/18/24 09:53	03/21/24 16:06	7440-70-2	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Kansas City							
Lithium, Total Recoverable	**0.024**	mg/L	0.010	1	03/18/24 09:53	03/21/24 17:14	7439-93-2	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City							
Arsenic, Total Recoverable	**<0.0010**	mg/L	0.0010	1	03/18/24 09:53	03/27/24 13:27	7440-38-2	
Cobalt, Total Recoverable	**<0.0010**	mg/L	0.0010	1	03/18/24 09:53	03/27/24 13:27	7440-48-4	
Molybdenum, Total Recoverable	**0.0073**	mg/L	0.0010	1	03/18/24 09:53	03/27/24 13:27	7439-98-7	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Kansas City							
Mercury	**1.2**	ug/L	0.20	1	04/05/24 10:03	04/08/24 15:06	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City							
Total Dissolved Solids	**1100**	mg/L	20.0	1		03/20/24 10:35		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Kansas City							
pH at 25 Degrees C	**7.3**	Std. Units	0.10	1		03/19/24 10:28		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City							
Chloride	**125**	mg/L	50.0	50		03/21/24 10:37	16887-00-6	
Fluoride	**<0.20**	mg/L	0.20	1		03/21/24 10:24	16984-48-8	
Sulfate	**478**	mg/L	50.0	50		03/21/24 10:37	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60449052

Sample: FAA-6-031424 **Lab ID: 60449052003** Collected: 03/14/24 10:05 Received: 03/14/24 17:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City							
Barium, Total Recoverable	**0.019**	mg/L	0.0050	1	04/18/24 08:04	04/18/24 13:46	7440-39-3	
Boron, Total Recoverable	**3.6**	mg/L	0.10	1	04/18/24 08:04	04/18/24 13:46	7440-42-8	
Calcium, Total Recoverable	**84.1**	mg/L	0.20	1	04/18/24 08:04	04/18/24 13:46	7440-70-2	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Kansas City							
Lithium, Total Recoverable	**<0.010**	mg/L	0.010	1	03/18/24 09:53	03/21/24 17:16	7439-93-2	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City							
Arsenic, Total Recoverable	**0.012**	mg/L	0.0010	1	04/18/24 08:04	04/18/24 14:18	7440-38-2	
Cobalt, Total Recoverable	**<0.0010**	mg/L	0.0010	1	04/18/24 08:04	04/18/24 14:18	7440-48-4	
Molybdenum, Total Recoverable	**0.35**	mg/L	0.0010	1	04/18/24 08:04	04/18/24 14:18	7439-98-7	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Kansas City							
Mercury	**<0.20**	ug/L	0.20	1	04/05/24 10:03	04/08/24 15:08	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City							
Total Dissolved Solids	**1750**	mg/L	40.0	1		03/21/24 11:36		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Kansas City							
pH at 25 Degrees C	**8.2**	Std. Units	0.10	1		03/20/24 11:48		H6
pH at 25 Degrees C	**8.0**	Std. Units	0.10	1		04/23/24 13:07		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City							
Chloride	**116**	mg/L	100	100		03/22/24 18:17	16887-00-6	
Fluoride	**0.55**	mg/L	0.20	1		03/21/24 11:14	16984-48-8	
Sulfate	**1260**	mg/L	100	100		03/22/24 18:17	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60449052

Sample: JEC-FAA-DUP-031424 **Lab ID: 60449052004** Collected: 03/14/24 10:05 Received: 03/14/24 17:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City							
Barium, Total Recoverable	**0.018**	mg/L	0.0050	1	03/18/24 09:53	03/21/24 16:11	7440-39-3	
Boron, Total Recoverable	**3.4**	mg/L	0.10	1	03/18/24 09:53	03/21/24 16:11	7440-42-8	
Calcium, Total Recoverable	**76.7**	mg/L	0.20	1	03/18/24 09:53	03/21/24 16:11	7440-70-2	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Kansas City							
Lithium, Total Recoverable	**<0.010**	mg/L	0.010	1	03/18/24 09:53	03/21/24 17:18	7439-93-2	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City							
Arsenic, Total Recoverable	**0.012**	mg/L	0.0010	1	03/18/24 09:53	03/27/24 13:37	7440-38-2	
Cobalt, Total Recoverable	**<0.0010**	mg/L	0.0010	1	03/18/24 09:53	03/27/24 13:37	7440-48-4	
Molybdenum, Total Recoverable	**0.35**	mg/L	0.0010	1	03/18/24 09:53	03/27/24 13:37	7439-98-7	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Kansas City							
Mercury	**<0.20**	ug/L	0.20	1	04/05/24 10:03	04/08/24 15:11	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City							
Total Dissolved Solids	**1270**	mg/L	66.7	1		03/21/24 11:36		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Kansas City							
pH at 25 Degrees C	**8.0**	Std. Units	0.10	1		03/20/24 11:50		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City							
Chloride	**80.1**	mg/L	20.0	20		03/22/24 00:11	16887-00-6	
Fluoride	**0.59**	mg/L	0.20	1		03/23/24 00:43	16984-48-8	
Sulfate	**1260**	mg/L	200	200		03/23/24 00:55	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60449052

QC Batch: 889416
QC Batch Method: EPA 245.1
Analysis Method: EPA 245.1
Analysis Description: 245.1 Mercury
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60449052001, 60449052002, 60449052003, 60449052004

METHOD BLANK: 3520316 Matrix: Water
Associated Lab Samples: 60449052001, 60449052002, 60449052003, 60449052004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	<0.20	0.20	04/08/24 14:55	

LABORATORY CONTROL SAMPLE: 3520317

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.0	100	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3520318 3520319

Parameter	Units	60449052001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.20	5	5	4.8	4.6	97	92	70-130	5	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60449052

QC Batch: 886918
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 Metals, Total
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60449052001, 60449052002, 60449052004

METHOD BLANK: 3510966 Matrix: Water
Associated Lab Samples: 60449052001, 60449052002, 60449052004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Barium	mg/L	<0.0050	0.0050	03/21/24 15:39	
Boron	mg/L	<0.10	0.10	03/21/24 15:39	
Calcium	mg/L	<0.20	0.20	03/21/24 15:39	

LABORATORY CONTROL SAMPLE: 3510967

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium	mg/L	1	0.99	99	85-115	
Boron	mg/L	1	0.95	95	85-115	
Calcium	mg/L	10	9.9	99	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3510968 3510969

Parameter	Units	60448981001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.059	1	1	1.1	1.1	101	100	70-130	0	20	
Boron	mg/L	0.64	1	1	1.6	1.6	98	97	70-130	0	20	
Calcium	mg/L	122	10	10	131	130	91	83	70-130	1	20	

MATRIX SPIKE SAMPLE: 3510970

Parameter	Units	60449055001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Barium	mg/L	<0.0050	1	1.0	101	70-130	
Boron	mg/L	1.7	1	2.7	104	70-130	
Calcium	mg/L	525	10	556	308	70-130	M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60449052

QC Batch: 891020
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 Metals, Total
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60449052003

METHOD BLANK: 3526509 Matrix: Water
Associated Lab Samples: 60449052003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Barium	mg/L	<0.0050	0.0050	04/18/24 13:40	
Boron	mg/L	<0.10	0.10	04/18/24 13:40	
Calcium	mg/L	<0.20	0.20	04/18/24 13:40	

LABORATORY CONTROL SAMPLE: 3526510

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium	mg/L	1	1.0	103	85-115	
Boron	mg/L	1	1.0	100	85-115	
Calcium	mg/L	10	10.7	107	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3526511 3526512

Parameter	Units	60449052003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.019	1	1	1.0	1.0	100	99	70-130	1	20	
Boron	mg/L	3.6	1	1	4.6	4.6	102	96	70-130	1	20	
Calcium	mg/L	84.1	10	10	94.9	93.4	108	92	70-130	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60449052

QC Batch: 886920
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60449052001, 60449052002, 60449052004

METHOD BLANK: 3510975 Matrix: Water
Associated Lab Samples: 60449052001, 60449052002, 60449052004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	<0.0010	0.0010	03/26/24 16:05	
Cobalt	mg/L	<0.0010	0.0010	03/26/24 16:05	
Molybdenum	mg/L	<0.0010	0.0010	03/26/24 16:05	

LABORATORY CONTROL SAMPLE: 3510976

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.04	0.042	105	85-115	
Cobalt	mg/L	0.04	0.043	107	85-115	
Molybdenum	mg/L	0.04	0.041	102	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3510977 3510978

Parameter	Units	60448981002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	0.0047	0.04	0.04	0.047	0.047	105	106	70-130	1	20	
Cobalt	mg/L	0.0030	0.04	0.04	0.046	0.046	107	108	70-130	1	20	
Molybdenum	mg/L	0.041	0.04	0.04	0.081	0.083	102	105	70-130	2	20	

SAMPLE DUPLICATE: 3516370

Parameter	Units	60449064001 Result	Dup Result	RPD	Max RPD	Qualifiers
Arsenic	mg/L	<0.0010	<0.0010		20	
Cobalt	mg/L	<0.0010	<0.0010		20	
Molybdenum	mg/L	0.0034	0.0033	3	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60449052

QC Batch: 891017
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60449052003

METHOD BLANK: 3526505 Matrix: Water
Associated Lab Samples: 60449052003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	<0.0010	0.0010	04/18/24 13:43	
Cobalt	mg/L	<0.0010	0.0010	04/18/24 13:43	
Molybdenum	mg/L	<0.0010	0.0010	04/18/24 13:43	

LABORATORY CONTROL SAMPLE: 3526506

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.04	0.041	101	85-115	
Cobalt	mg/L	0.04	0.039	98	85-115	
Molybdenum	mg/L	0.04	0.040	99	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3526507 3526508

Parameter	Units	60449068003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	<1.0 ug/L	0.04	0.04	0.043	0.043	104	104	70-130	0	20	
Cobalt	mg/L	0.0012	0.04	0.04	0.041	0.041	100	99	70-130	1	20	
Molybdenum	mg/L	0.0023	0.04	0.04	0.043	0.043	101	101	70-130	0	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60449052

QC Batch: 886919
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60449052001, 60449052002, 60449052003, 60449052004

METHOD BLANK: 3510971 Matrix: Water
Associated Lab Samples: 60449052001, 60449052002, 60449052003, 60449052004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lithium	mg/L	<0.010	0.010	03/21/24 16:46	

LABORATORY CONTROL SAMPLE: 3510972

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lithium	mg/L	1	1.1	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3510973 3510974

Parameter	Units	60448981001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lithium	mg/L	0.033	1	1	1.1	1.1	105	103	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60449052

QC Batch: 887323
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60449052002

METHOD BLANK: 3512243 Matrix: Water
Associated Lab Samples: 60449052002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<5.0	5.0	03/20/24 10:34	

LABORATORY CONTROL SAMPLE: 3512244

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	2000	1860	93	80-120	

SAMPLE DUPLICATE: 3512245

Parameter	Units	60448961001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	ND	<5.0		10	

SAMPLE DUPLICATE: 3512246

Parameter	Units	60449062003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	3250	3670	12	10	D6

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60449052

QC Batch: 887513
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60449052001, 60449052003, 60449052004

METHOD BLANK: 3513109 Matrix: Water
Associated Lab Samples: 60449052001, 60449052003, 60449052004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<5.0	5.0	03/21/24 11:35	

LABORATORY CONTROL SAMPLE: 3513110

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	2000	1830	92	80-120	

SAMPLE DUPLICATE: 3513111

Parameter	Units	60449026001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	489	507	3	10	

SAMPLE DUPLICATE: 3513112

Parameter	Units	60449065006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	761	793	4	10	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60449052

QC Batch: 887127
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60449052002

SAMPLE DUPLICATE: 3511675

Parameter	Units	60449064001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.9	7.1	2	5	H6

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60449052

QC Batch: 887322
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60449052001, 60449052003, 60449052004

SAMPLE DUPLICATE: 3512242

Parameter	Units	60449215003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.9	9.0	1	5	H6

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60449052

QC Batch: 891664
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60449052003

SAMPLE DUPLICATE: 3529109

Parameter	Units	60449052003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.0	8.1	2	5	H6

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

REPORT OF LABORATORY ANALYSIS

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(913)599-5665

QUALITY CONTROL DATA

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60449052

QC Batch: 887337
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60449052001, 60449052002, 60449052003

METHOD BLANK: 3512315 Matrix: Water
Associated Lab Samples: 60449052001, 60449052002, 60449052003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<1.0	1.0	03/21/24 08:46	
Fluoride	mg/L	<0.20	0.20	03/21/24 08:46	
Sulfate	mg/L	<1.0	1.0	03/21/24 08:46	

LABORATORY CONTROL SAMPLE: 3512316

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5	4.7	94	90-110	
Fluoride	mg/L	2.5	2.4	97	90-110	
Sulfate	mg/L	5	4.9	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3512317 3512318

Parameter	Units	60449052001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	170	250	250	427	398	103	91	80-120	7	15	
Fluoride	mg/L	<0.20	2.5	2.5	2.6	2.6	101	100	80-120	1	15	
Sulfate	mg/L	874	250	250	1200	1120	129	100	80-120	6	15	E,M1

MATRIX SPIKE SAMPLE: 3512319

Parameter	Units	60449065002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	78.4	250	323	98	80-120	
Fluoride	mg/L	<0.20	2.5	2.1	82	80-120	
Sulfate	mg/L	332	250	601	107	80-120	

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

REPORT OF LABORATORY ANALYSIS

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(913)599-5665

QUALITY CONTROL DATA

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60449052

QC Batch: 887354
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60449052004

METHOD BLANK: 3512422 Matrix: Water
Associated Lab Samples: 60449052004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<1.0	1.0	03/21/24 20:24	
Fluoride	mg/L	<0.20	0.20	03/21/24 20:24	
Sulfate	mg/L	<1.0	1.0	03/21/24 20:24	

LABORATORY CONTROL SAMPLE: 3512423

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5	4.9	98	90-110	
Fluoride	mg/L	2.5	2.5	99	90-110	
Sulfate	mg/L	5	5.0	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3512424 3512425

Parameter	Units	60448568015 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	2350	2500	2500	4770	4550	97	88	80-120	5	15	
Fluoride	mg/L	ND	125	125	140	137	112	110	80-120	2	15	
Sulfate	mg/L	116	250	250	391	382	110	107	80-120	2	15	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALIFIERS

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60449052

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D6	The precision between the sample and sample duplicate exceeded laboratory control limits.
E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H6	Analysis initiated outside of the 15 minute EPA required holding time.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60449052

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60449052001	**FAA-3-031424**	EPA 200.7	886918	EPA 200.7	887028
60449052002	**FAA-4-031324**	EPA 200.7	886918	EPA 200.7	887028
60449052003	**FAA-6-031424**	EPA 200.7	891020	EPA 200.7	891034
60449052004	**JEC-FAA-DUP-031424**	EPA 200.7	886918	EPA 200.7	887028
60449052001	**FAA-3-031424**	EPA 3010	886919	EPA 6010	887027
60449052002	**FAA-4-031324**	EPA 3010	886919	EPA 6010	887027
60449052003	**FAA-6-031424**	EPA 3010	886919	EPA 6010	887027
60449052004	**JEC-FAA-DUP-031424**	EPA 3010	886919	EPA 6010	887027
60449052001	**FAA-3-031424**	EPA 200.8	886920	EPA 200.8	887029
60449052002	**FAA-4-031324**	EPA 200.8	886920	EPA 200.8	887029
60449052003	**FAA-6-031424**	EPA 200.8	891017	EPA 200.8	891033
60449052004	**JEC-FAA-DUP-031424**	EPA 200.8	886920	EPA 200.8	887029
60449052001	**FAA-3-031424**	EPA 245.1	889416	EPA 245.1	889448
60449052002	**FAA-4-031324**	EPA 245.1	889416	EPA 245.1	889448
60449052003	**FAA-6-031424**	EPA 245.1	889416	EPA 245.1	889448
60449052004	**JEC-FAA-DUP-031424**	EPA 245.1	889416	EPA 245.1	889448
60449052001	**FAA-3-031424**	SM 2540C	887513		
60449052002	**FAA-4-031324**	SM 2540C	887323		
60449052003	**FAA-6-031424**	SM 2540C	887513		
60449052004	**JEC-FAA-DUP-031424**	SM 2540C	887513		
60449052001	**FAA-3-031424**	SM 4500-H+B	887322		
60449052002	**FAA-4-031324**	SM 4500-H+B	887127		
60449052003	**FAA-6-031424**	SM 4500-H+B	887322		
60449052003	**FAA-6-031424**	SM 4500-H+B	891664		
60449052004	**JEC-FAA-DUP-031424**	SM 4500-H+B	887322		
60449052001	**FAA-3-031424**	EPA 300.0	887337		
60449052002	**FAA-4-031324**	EPA 300.0	887337		
60449052003	**FAA-6-031424**	EPA 300.0	887337		
60449052004	**JEC-FAA-DUP-031424**	EPA 300.0	887354		

WO# : 60449052

60449052

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-LENE-0009_Sample	
	Revision: 2	Effective Date: 01/12/2022

Client Name: Evergy

Courier: FedEx ☐ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☑ Other ☐

Tracking #: _____ Pace Shipping Label Used? Yes ☐ No ☑

Custody Seal on Cooler/Box Present: Yes ☑ No ☐ Seals intact: Yes ☑ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☐ None ☐ Other ☑ Zip lock

Thermometer Used: T298 **Type of Ice:** (Wet) Blue None

Cooler Temperature (°C): **As-read** 1.4 **Corr. Factor** 0.7 **Corrected** 1.1

Date and initials of person examining contents: 03.15.2024

Temperature should be above freezing to 6°C

Chain of Custody present:	☑Yes ☐No ☐N/A	
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	
Samples arrived within holding time:	☑Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☑No ☐N/A	
Rush Turn Around Time requested:	☐Yes ☑No ☐N/A	
Sufficient volume:	☑Yes ☐No ☐N/A	
Correct containers used:	☑Yes ☐No ☐N/A	
Pace containers used:	☑Yes ☐No ☐N/A	
Containers intact:	☑Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☑N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☑N/A	
Sample labels match COC: Date / time / ID / analyses	☑Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: WT	☐Yes ☑No ☐N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO) **LOT#:** 67187	☑Yes ☐No ☐N/A	List sample IDs, volumes, lot #'s of preservative and the date/time added.
Cyanide water sample checks: Lead acetate strip turns dark? (Record only)	☐Yes ☐No	
Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No	
Trip Blank present:	☐Yes ☐No ☑N/A	
Headspace in VOA vials (>6mm):	☐Yes ☐No ☑N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☑N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☑N/A	

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

Pace® Location Requested (City/State):
Pace Analytical Kansas
9608 Loiret Blvd., Lenexa, KS 66219

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

60419052

Scan QR Code for instructions

Company Name:	Evergy Kansas Central, Inc.	Contact/Report To:	Jake Humphrey
Street Address:	818 S Kansas Avenue, Topeka, KS 66612	Phone #:	(913)634-0605
		E-Mail:	jake.humphrey@evergy.com
		Cc E-Mail:	skaney@haleyaldrich.com
Customer Project #:			
Project Name:	JEC FAL CCR	Invoice To:	Jeffrey Center
		Invoice E-Mail:	evergyap@onlinecapturecenter.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	WSTR-2000095397
		Quote #:	

Time Zone Collected: [ ] AK [ ] PT [ ] MT [X] CT [ ] ET

County / State origin of sample(s): Kansas

Data Deliverables:
[ ] Level II [ ] Level III [ ] Level IV
[ ] EQUIS
[ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [X] No

Rush (Pre-approval required):
[ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested:

Field Filtered (if applicable): [ ] Yes [X] No
Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Specify Container Size **: 3 2 3

Identify Container Preservative Type***: 2 1 1

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	Analysis Requested: 200.7 B,Ca,Ba/ 200.8 As,Co,Mo 6010 Li	2540C Total Dissolved Solids	pH, 300.0 Cl,F,SO4	Sample Comment
FAA-3-031424	WT	Grab	-	-	3/14/2024	920	3	-	-	X	X	X	
FAA-4-031324	WT	Grab	-	-	3/13/2024	1630	3	-	-	X	X	X	
FAA-6-031424	WT	Grab	-	-	3/14/2024	1005	3	-	-	X	X	X	
JEC-FAA-DUP-031424	WT	Grab	-	-	3/14/2024	1005	3	-	-	X	X	X	

Lab Use Only
Proj. Mgr: Alice Spiller
AcctNum / Client ID:
Table #:
Profile / Template: 9655
Prelog / Bottle Ord. ID: EZ 3080036

Preservation non-conformance identified for sample.

Additional Instructions from Pace®:

Collected By: (Printed Name) Matt VanderPutten
Signature:

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
	T298	-0.3	1.4	1.1	

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
Matt VanderPutten / SCS Engineers	03/14/2024 / 1730	JA pale	3/14/24 1730	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In- Person [ ] Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	[ ] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 1 of 1

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

ENV-FRM-CORQ-0019_v02_110123 ©

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9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

April 26, 2024

Jake Humphrey
Evergy, Inc.
818 S Kansas Avenue
Topeka, KS 66612

RE: Project: MW-FAA-5-Revised Report
Pace Project No.: 60449055

Dear Jake Humphrey:

Enclosed are the analytical results for sample(s) received by the laboratory on March 14, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Kansas City

REVISED to report 200.8 metals at lower dilution.

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

Sincerely,

Alice Spiller

Alice Spiller
alice.spiller@pacelabs.com
(913)599-5665
PM Lab Management

Enclosures

cc: Shelly Gomez, Evergy
Laura Hines, Evergy, Inc.
Shannon Hughes, Evergy
Adam Irvin, Evergy
Samantha Kaney, Haley & Aldrich
Andrew Watson, Haley & Aldrich

Pace Analytical Services, LLC
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CERTIFICATIONS

Project: MW-FAA-5-Revised Report
Pace Project No.: 60449055

Pace Analytical Services Kansas

9608 Loiret Boulevard, Lenexa, KS 66219
Arkansas Inorganic Drinking Water Certification
Arkansas Certification #: 88-00679
Colorado Division of Oil and Public Safety
Illinois Certification #: 2000302023-6
Iowa Certification #: 118
Kansas Field Laboratory Certification #: E-92587
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Missouri Inorganic Drinking Water Certification
Nevada Certification #: KS000212024-1
Oklahoma Certification #: 2023-073
Texas Certification #: T104704407-23-17
Utah Certification #: KS000212022-13

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE SUMMARY

Project: MW-FAA-5-Revised Report
Pace Project No.: 60449055

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60449055001	**FAA-5-031424**	Water	03/13/24 10:10	03/14/24 17:30

Pace Analytical Services, LLC
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SAMPLE ANALYTE COUNT

Project: MW-FAA-5-Revised Report
Pace Project No.: 60449055

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60449055001	**FAA-5-031424**	EPA 200.7	JXD	6	PASI-K
		EPA 6010	JXD	1	PASI-K
		EPA 200.8	JGP	7	PASI-K
		EPA 245.1	ACLC	1	PASI-K
		SM 2540C	KVI	1	PASI-K
		SM 4500-H+B	SR1	1	PASI-K
		EPA 300.0	PL, RKA	3	PASI-K

PASI-K = Pace Analytical Services - Kansas City

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(913)599-5665

PROJECT NARRATIVE

Project: MW-FAA-5-Revised Report
Pace Project No.: 60449055

Method: **EPA 200.7**
Description: 200.7 Metals, Total
Client: Evergy Kansas Central, Inc.
Date: April 26, 2024

General Information:
1 sample was analyzed for EPA 200.7 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 200.7 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

QC Batch: 886918

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60448981001,60449055001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 3510970)
  - Calcium

Additional Comments:

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: MW-FAA-5-Revised Report
Pace Project No.: 60449055

Method: **EPA 6010**
Description: 6010 MET ICP
Client: Evergy Kansas Central, Inc.
Date: April 26, 2024

General Information:
1 sample was analyzed for EPA 6010 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Additional Comments:

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PROJECT NARRATIVE

Project: MW-FAA-5-Revised Report
Pace Project No.: 60449055

Method: **EPA 200.8**
Description: 200.8 MET ICPMS
Client: Evergy Kansas Central, Inc.
Date: April 26, 2024

General Information:
1 sample was analyzed for EPA 200.8 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 200.8 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Additional Comments:

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PROJECT NARRATIVE

Project: MW-FAA-5-Revised Report
Pace Project No.: 60449055

Method: **EPA 245.1**
Description: 245.1 Mercury
Client: Evergy Kansas Central, Inc.
Date: April 26, 2024

General Information:
1 sample was analyzed for EPA 245.1 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 245.1 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Additional Comments:

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PROJECT NARRATIVE

Project: MW-FAA-5-Revised Report
Pace Project No.: 60449055

Method: **SM 2540C**
Description: 2540C Total Dissolved Solids
Client: Evergy Kansas Central, Inc.
Date: April 26, 2024

General Information:
1 sample was analyzed for SM 2540C by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

QC Batch: 887323

D6: The precision between the sample and sample duplicate exceeded laboratory control limits.

- DUP (Lab ID: 3512246)
  - Total Dissolved Solids

Additional Comments:

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PROJECT NARRATIVE

Project: MW-FAA-5-Revised Report
Pace Project No.: 60449055

Method: **SM 4500-H+B**
Description: 4500H+ pH, Electrometric
Client: Evergy Kansas Central, Inc.
Date: April 26, 2024

General Information:
1 sample was analyzed for SM 4500-H+B by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

H6: Analysis initiated outside of the 15 minute EPA required holding time.
- FAA-5-031424 (Lab ID: 60449055001)

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: MW-FAA-5-Revised Report
Pace Project No.: 60449055

Method: **EPA 300.0**
Description: 300.0 IC Anions 28 Days
Client: Evergy Kansas Central, Inc.
Date: April 26, 2024

General Information:
1 sample was analyzed for EPA 300.0 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Additional Comments:

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

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ANALYTICAL RESULTS

Project: MW-FAA-5-Revised Report
Pace Project No.: 60449055

Sample: FAA-5-031424 **Lab ID: 60449055001** Collected: 03/13/24 10:10 Received: 03/14/24 17:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City							
Barium, Total Recoverable	**<0.0050**	mg/L	0.0050	1	03/18/24 09:53	03/21/24 16:16	7440-39-3	
Beryllium, Total Recoverable	**<0.0010**	mg/L	0.0010	1	03/18/24 09:53	03/21/24 16:16	7440-41-7	
Boron, Total Recoverable	**1.7**	mg/L	0.10	1	03/18/24 09:53	03/21/24 16:16	7440-42-8	
Calcium, Total Recoverable	**525**	mg/L	0.20	1	03/18/24 09:53	03/21/24 16:16	7440-70-2	M1
Chromium, Total Recoverable	**<0.0050**	mg/L	0.0050	1	03/18/24 09:53	03/21/24 16:16	7440-47-3	
Lead, Total Recoverable	**<0.010**	mg/L	0.010	1	03/18/24 09:53	03/21/24 16:16	7439-92-1	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Kansas City							
Lithium, Total Recoverable	**0.14**	mg/L	0.010	1	03/18/24 09:53	03/21/24 17:23	7439-93-2	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City							
Antimony, Total Recoverable	**<0.0010**	mg/L	0.0010	1	04/18/24 08:04	04/18/24 13:57	7440-36-0	
Arsenic, Total Recoverable	**0.0012**	mg/L	0.0010	1	04/18/24 08:04	04/18/24 13:57	7440-38-2	
Cadmium, Total Recoverable	**<0.00050**	mg/L	0.00050	1	04/18/24 08:04	04/18/24 13:57	7440-43-9	
Cobalt, Total Recoverable	**0.0014**	mg/L	0.0010	1	04/18/24 08:04	04/18/24 13:57	7440-48-4	
Molybdenum, Total Recoverable	**0.017**	mg/L	0.0010	1	04/18/24 08:04	04/18/24 13:57	7439-98-7	
Selenium, Total Recoverable	**<0.0010**	mg/L	0.0010	1	04/18/24 08:04	04/18/24 13:57	7782-49-2	
Thallium, Total Recoverable	**<0.0010**	mg/L	0.0010	1	04/18/24 08:04	04/18/24 13:57	7440-28-0	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Kansas City							
Mercury	**<0.20**	ug/L	0.20	1	03/26/24 10:19	03/26/24 15:15	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City							
Total Dissolved Solids	**2940**	mg/L	66.7	1		03/20/24 10:35		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Kansas City							
pH at 25 Degrees C	**6.8**	Std. Units	0.10	1		03/18/24 12:43		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City							
Chloride	**89.3**	mg/L	20.0	20		03/22/24 00:51	16887-00-6	
Fluoride	**0.93**	mg/L	0.20	1		03/23/24 01:34	16984-48-8	
Sulfate	**2230**	mg/L	200	200		03/23/24 01:47	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MW-FAA-5-Revised Report
Pace Project No.: 60449055

QC Batch: 887800
QC Batch Method: EPA 245.1
Analysis Method: EPA 245.1
Analysis Description: 245.1 Mercury
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60449055001

METHOD BLANK: 3514268 Matrix: Water
Associated Lab Samples: 60449055001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	<0.20	0.20	03/26/24 14:56	

LABORATORY CONTROL SAMPLE: 3514269

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.9	98	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3514270 3514271

Parameter	Units	60448879001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	0.60	5	5	5.6	5.5	99	99	70-130	0	20	

MATRIX SPIKE SAMPLE: 3514272

Parameter	Units	60449064005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	<0.20	5	6.4	127	70-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MW-FAA-5-Revised Report
Pace Project No.: 60449055

QC Batch: 886918
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 Metals, Total
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60449055001

METHOD BLANK: 3510966 Matrix: Water
Associated Lab Samples: 60449055001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Barium	mg/L	<0.0050	0.0050	03/21/24 15:39	
Beryllium	mg/L	<0.0010	0.0010	03/21/24 15:39	
Boron	mg/L	<0.10	0.10	03/21/24 15:39	
Calcium	mg/L	<0.20	0.20	03/21/24 15:39	
Chromium	mg/L	<0.0050	0.0050	03/21/24 15:39	
Lead	mg/L	<0.010	0.010	03/21/24 15:39	

LABORATORY CONTROL SAMPLE: 3510967

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium	mg/L	1	0.99	99	85-115	
Beryllium	mg/L	1	1.0	104	85-115	
Boron	mg/L	1	0.95	95	85-115	
Calcium	mg/L	10	9.9	99	85-115	
Chromium	mg/L	1	1.1	105	85-115	
Lead	mg/L	1	1.0	104	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3510968 3510969

Parameter	Units	60448981001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.059	1	1	1.1	1.1	101	100	70-130	0	20	
Beryllium	mg/L	<0.0010	1	1	1.1	1.1	107	105	70-130	1	20	
Boron	mg/L	0.64	1	1	1.6	1.6	98	97	70-130	0	20	
Calcium	mg/L	122	10	10	131	130	91	83	70-130	1	20	
Chromium	mg/L	<0.0050	1	1	1.0	1.0	104	102	70-130	2	20	
Lead	mg/L	<0.010	1	1	1.0	1.0	100	100	70-130	1	20	

MATRIX SPIKE SAMPLE: 3510970

Parameter	Units	60449055001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Barium	mg/L	<0.0050	1	1.0	101	70-130	
Beryllium	mg/L	<0.0010	1	1.0	105	70-130	
Boron	mg/L	1.7	1	2.7	104	70-130	
Calcium	mg/L	525	10	556	308	70-130	M1
Chromium	mg/L	<0.0050	1	1.0	104	70-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MW-FAA-5-Revised Report
Pace Project No.: 60449055

MATRIX SPIKE SAMPLE: 3510970

Parameter	Units	60449055001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Lead	mg/L	<0.010	1	0.97	97	70-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MW-FAA-5-Revised Report
Pace Project No.: 60449055

QC Batch: 891017
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60449055001

METHOD BLANK: 3526505 Matrix: Water
Associated Lab Samples: 60449055001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	mg/L	<0.0010	0.0010	04/18/24 13:43	
Arsenic	mg/L	<0.0010	0.0010	04/18/24 13:43	
Cadmium	mg/L	<0.00050	0.00050	04/18/24 13:43	
Cobalt	mg/L	<0.0010	0.0010	04/18/24 13:43	
Molybdenum	mg/L	<0.0010	0.0010	04/18/24 13:43	
Selenium	mg/L	<0.0010	0.0010	04/18/24 13:43	
Thallium	mg/L	<0.0010	0.0010	04/18/24 13:43	

LABORATORY CONTROL SAMPLE: 3526506

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.04	0.039	98	85-115	
Arsenic	mg/L	0.04	0.041	101	85-115	
Cadmium	mg/L	0.04	0.041	102	85-115	
Cobalt	mg/L	0.04	0.039	98	85-115	
Molybdenum	mg/L	0.04	0.040	99	85-115	
Selenium	mg/L	0.04	0.041	102	85-115	
Thallium	mg/L	0.04	0.038	96	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3526507 3526508

Parameter	Units	60449068003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	<1.0 ug/L	0.04	0.04	0.039	0.038	96	95	70-130	1	20	
Arsenic	mg/L	<1.0 ug/L	0.04	0.04	0.043	0.043	104	104	70-130	0	20	
Cadmium	mg/L	<0.50 ug/L	0.04	0.04	0.037	0.037	93	92	70-130	1	20	
Cobalt	mg/L	0.0012	0.04	0.04	0.041	0.041	100	99	70-130	1	20	
Molybdenum	mg/L	0.0023	0.04	0.04	0.043	0.043	101	101	70-130	0	20	
Selenium	mg/L	<1.0 ug/L	0.04	0.04	0.043	0.043	106	106	70-130	0	20	
Thallium	mg/L	<1.0 ug/L	0.04	0.04	0.035	0.035	86	86	70-130	0	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MW-FAA-5-Revised Report
Pace Project No.: 60449055

QC Batch: 886919
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60449055001

METHOD BLANK: 3510971 Matrix: Water
Associated Lab Samples: 60449055001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lithium	mg/L	<0.010	0.010	03/21/24 16:46	

LABORATORY CONTROL SAMPLE: 3510972

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lithium	mg/L	1	1.1	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3510973 3510974

Parameter	Units	60448981001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lithium	mg/L	0.033	1	1	1.1	1.1	105	103	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MW-FAA-5-Revised Report
Pace Project No.: 60449055

QC Batch: 887323
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60449055001

METHOD BLANK: 3512243 Matrix: Water
Associated Lab Samples: 60449055001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<5.0	5.0	03/20/24 10:34	

LABORATORY CONTROL SAMPLE: 3512244

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	2000	1860	93	80-120	

SAMPLE DUPLICATE: 3512245

Parameter	Units	60448961001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	ND	<5.0		10	

SAMPLE DUPLICATE: 3512246

Parameter	Units	60449062003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	3250	3670	12	10	D6

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MW-FAA-5-Revised Report
Pace Project No.: 60449055

QC Batch: 886942
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60449055001

SAMPLE DUPLICATE: 3511036

Parameter	Units	60449101001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.5	8.6	1	5	H6

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MW-FAA-5-Revised Report
Pace Project No.: 60449055

QC Batch: 887354
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60449055001

METHOD BLANK: 3512422 Matrix: Water
Associated Lab Samples: 60449055001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<1.0	1.0	03/21/24 20:24	
Fluoride	mg/L	<0.20	0.20	03/21/24 20:24	
Sulfate	mg/L	<1.0	1.0	03/21/24 20:24	

LABORATORY CONTROL SAMPLE: 3512423

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5	4.9	98	90-110	
Fluoride	mg/L	2.5	2.5	99	90-110	
Sulfate	mg/L	5	5.0	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3512424 3512425

Parameter	Units	60448568015 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	2350	2500	2500	4770	4550	97	88	80-120	5	15	
Fluoride	mg/L	ND	125	125	140	137	112	110	80-120	2	15	
Sulfate	mg/L	116	250	250	391	382	110	107	80-120	2	15	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: MW-FAA-5-Revised Report
Pace Project No.: 60449055

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D6	The precision between the sample and sample duplicate exceeded laboratory control limits.
H6	Analysis initiated outside of the 15 minute EPA required holding time.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MW-FAA-5-Revised Report
Pace Project No.: 60449055

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60449055001	**FAA-5-031424**	EPA 200.7	886918	EPA 200.7	887028
60449055001	**FAA-5-031424**	EPA 3010	886919	EPA 6010	887027
60449055001	**FAA-5-031424**	EPA 200.8	891017	EPA 200.8	891033
60449055001	**FAA-5-031424**	EPA 245.1	887800	EPA 245.1	888147
60449055001	**FAA-5-031424**	SM 2540C	887323		
60449055001	**FAA-5-031424**	SM 4500-H+B	886942		
60449055001	**FAA-5-031424**	EPA 300.0	887354		

WO# : 60449055

60449055

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-LENE-0009_Sam	
	Revision: 2	Effective Date: 01/12/2022

Client Name: Evergy 43.1524

Courier: FedEx ☐ UPS ☐ VIA ☒ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☑ Other ☐

Tracking #: _____ Pace Shipping Label Used? Yes ☐ No ☑

Custody Seal on Cooler/Box Present: Yes ☑ No ☐ Seals intact: Yes ☑ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☐ None ☐ Other ☑ Zip

Thermometer Used: T498 **Type of Ice:** Wet Blue None

Cooler Temperature (°C): **As-read** 2.6 **Corr. Factor** -0.3 **Corrected** 2.3

Date and initials of person examining contents: 03-15-2024

Temperature should be above freezing to 6°C

Chain of Custody present:	☑Yes ☐No ☐N/A	
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	
Samples arrived within holding time:	☑Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☑No ☐N/A	
Rush Turn Around Time requested:	☐Yes ☑No ☐N/A	
Sufficient volume:	☑Yes ☐No ☐N/A	
Correct containers used:	☑Yes ☐No ☐N/A	
Pace containers used:	☑Yes ☐No ☐N/A	
Containers intact:	☑Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☑N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☑N/A	
Sample labels match COC: Date / time / ID / analyses	☑Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: WW	☐Yes ☑No ☐N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO) **LOT#:** 67187	☑Yes ☐No ☐N/A	List sample IDs, volumes, lot #'s of preservative and the date/time added.
Cyanide water sample checks: Lead acetate strip turns dark? (Record only)	☐Yes ☐No	
Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No	
Trip Blank present:	☐Yes ☐No ☑N/A	
Headspace in VOA vials (>6mm):	☐Yes ☐No ☑N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☑N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☑N/A	

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

Pace® Location Requested (City/State):
Pace Analytical Kansas
9608 Loiret Blvd., Lenexa, KS 66219

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

60449055

Scan QR Code for instructions

Company Name:	Evergy Kansas Central, Inc.	Contact/Report To:	Jake Humphrey
Street Address:	818 S Kansas Avenue, Topeka, KS 66612	Phone #:	(913)634-0605
		E-Mail:	jake.humphrey@evergy.com
		Cc E-Mail:	skaney@haleyaldrich.com
Customer Project #:			
Project Name:	MW-FAA-5	Invoice To:	Jeffrey Center
		Invoice E-Mail:	evergyap@onlinecapturecenter.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	WSTR-2000095397
		Quote #:	

Time Zone Collected: [ ] AK [ ] PT [ ] MT [X] CT [ ] ET

County / State origin of sample(s): Kansas

Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [X] No

Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested:

Field Filtered (if applicable): [ ] Yes [X] No

Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Specify Container Size **: 3 2 3

Identify Container Preservative Type***: 2 1 1

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	Analysis Requested: 200.7 /200.8 / 6010/ 245.1**see lists	2540C Total Dissolved Solids	pH, 300.0 Cl,F,SO4	Lab Use Only: Proj. Mgr.	Lab Use Only: AcctNum / Client ID	Lab Use Only: Table #	Lab Use Only: Profile / Template	Lab Use Only: Prelog / Bottle Ord. ID	Sample Comment	Preservation non-conformance identified for sample.
													Alice Spiller			9655	EZ 3080040		
FAA-5-031324	WT	Grab	-	-	3/13/2024	1010	3	-	-	X	X	X							

Additional Instructions from Pace®:
200.7 B,Ca,Ba,Be,Cr,Pb
200.8 Sb,As,Co,Mo,Se,Tl
6010 Li / 245.1 Hg

Collected By: (Printed Name) Matt VanderPutten

Signature:

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp (°C)	Corrected Temp. (°C)	On Ice:
	T248	-0.3	2.6	2.3	

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
Matt VanderPutten / SCS Engineers	03/14/2024 / 1730	SA Pace	3/14/24 1736	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In- Person [ ] Courier [ ] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 1 of 1

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

ENV-FRM-CORQ-0019_v02_110123 ©

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April 10, 2024

Jake Humphrey
Evergy, Inc.
818 S Kansas Avenue
Topeka, KS 66612

RE: Project: JEC FAL CCR RADCHEM
Pace Project No.: 60449057

Dear Jake Humphrey:

Enclosed are the analytical results for sample(s) received by the laboratory on March 14, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Greensburg

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

Sincerely,

Alice Spiller

Alice Spiller
alice.spiller@pacelabs.com
(913)599-5665
PM Lab Management

Enclosures

cc: Shelly Gomez, Evergy
Laura Hines, Evergy, Inc.
Shannon Hughes, Evergy
Adam Irvin, Evergy
Samantha Kaney, Haley & Aldrich
Andrew Watson, Haley & Aldrich

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CERTIFICATIONS

Project: JEC FAL CCR RADCHEM
Pace Project No.: 60449057

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

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SAMPLE SUMMARY

Project: JEC FAL CCR RADCHEM
Pace Project No.: 60449057

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60449057001	**FAA-3-031424**	Water	03/14/24 09:20	03/14/24 17:30
60449057002	**FAA-4-031324**	Water	03/13/24 16:30	03/14/24 17:30
60449057003	**FAA-6-031424**	Water	03/14/24 10:05	03/14/24 17:30
60449057004	**JEC-FAA-DUP-031424**	Water	03/14/24 10:05	03/14/24 17:30

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SAMPLE ANALYTE COUNT

Project: JEC FAL CCR RADCHEM
Pace Project No.: 60449057

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60449057001	**FAA-3-031424**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
60449057002	**FAA-4-031324**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
60449057003	**FAA-6-031424**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
60449057004	**JEC-FAA-DUP-031424**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

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PROJECT NARRATIVE

Project: JEC FAL CCR RADCHEM
Pace Project No.: 60449057

Method: **EPA 903.1**
Description: 903.1 Radium 226
Client: Evergy Kansas Central, Inc.
Date: April 10, 2024

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

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

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Additional Comments:

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PROJECT NARRATIVE

Project: JEC FAL CCR RADCHEM
Pace Project No.: 60449057

Method: **EPA 904.0**
Description: 904.0 Radium 228
Client: Evergy Kansas Central, Inc.
Date: April 10, 2024

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

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

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Additional Comments:

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PROJECT NARRATIVE

Project: JEC FAL CCR RADCHEM
Pace Project No.: 60449057

Method: **Total Radium Calculation**
Description: Total Radium 228+226
Client: Evergy Kansas Central, Inc.
Date: April 10, 2024

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

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

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Additional Comments:

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

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: JEC FAL CCR RADCHEM
Pace Project No.: 60449057

Sample: FAA-3-031424 **Lab ID: 60449057001** Collected: 03/14/24 09:20 Received: 03/14/24 17:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.233 ± 0.396 (0.699) C:NA T:85%**	pCi/L	03/29/24 14:46	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.526 ± 0.403 (0.792) C:83% T:75%**	pCi/L	03/29/24 11:35	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.759 ± 0.799 (1.49)**	pCi/L	04/04/24 11:19	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: JEC FAL CCR RADCHEM
Pace Project No.: 60449057

Sample: FAA-4-031324 **Lab ID: 60449057002** Collected: 03/13/24 16:30 Received: 03/14/24 17:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.000 ± 0.400 (0.819) C:NA T:90%**	pCi/L	03/29/24 14:46	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.488 ± 0.443 (0.904) C:84% T:76%**	pCi/L	03/29/24 11:35	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.488 ± 0.843 (1.72)**	pCi/L	04/04/24 11:19	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: JEC FAL CCR RADCHEM
Pace Project No.: 60449057

Sample: FAA-6-031424 **Lab ID: 60449057003** Collected: 03/14/24 10:05 Received: 03/14/24 17:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.759 ± 0.579 (1.34) C:NA T:85%**	pCi/L	03/29/24 14:46	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.684 ± 0.368 (0.647) C:87% T:81%**	pCi/L	03/29/24 11:35	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.684 ± 0.947 (1.99)**	pCi/L	04/04/24 11:19	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: JEC FAL CCR RADCHEM
Pace Project No.: 60449057

Sample: JEC-FAA-DUP-031424 **Lab ID: 60449057004** Collected: 03/14/24 10:05 Received: 03/14/24 17:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.616 ± 0.524 (0.736) C:NA T:82%**	pCi/L	03/29/24 14:46	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.382 ± 0.363 (0.740) C:83% T:80%**	pCi/L	03/29/24 11:35	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.998 ± 0.887 (1.48)**	pCi/L	04/04/24 11:19	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: JEC FAL CCR RADCHEM
Pace Project No.: 60449057

QC Batch: 656418
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 60449057001, 60449057002, 60449057003, 60449057004

METHOD BLANK: 3197469 Matrix: Water
Associated Lab Samples: 60449057001, 60449057002, 60449057003, 60449057004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.000 ± 0.222 (0.498) C:NA T:83%	pCi/L	03/29/24 14:46	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: JEC FAL CCR RADCHEM
Pace Project No.: 60449057

QC Batch: 656421
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 60449057001, 60449057002, 60449057003, 60449057004

METHOD BLANK: 3197475 Matrix: Water
Associated Lab Samples: 60449057001, 60449057002, 60449057003, 60449057004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.246 ± 0.352 (0.756) C:87% T:68%	pCi/L	03/29/24 11:35	

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

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: JEC FAL CCR RADCHEM
Pace Project No.: 60449057

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: JEC FAL CCR RADCHEM
Pace Project No.: 60449057

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60449057001	**FAA-3-031424**	EPA 903.1	656418		
60449057002	**FAA-4-031324**	EPA 903.1	656418		
60449057003	**FAA-6-031424**	EPA 903.1	656418		
60449057004	**JEC-FAA-DUP-031424**	EPA 903.1	656418		
60449057001	**FAA-3-031424**	EPA 904.0	656421		
60449057002	**FAA-4-031324**	EPA 904.0	656421		
60449057003	**FAA-6-031424**	EPA 904.0	656421		
60449057004	**JEC-FAA-DUP-031424**	EPA 904.0	656421		
60449057001	**FAA-3-031424**	Total Radium Calculation	659757		
60449057002	**FAA-4-031324**	Total Radium Calculation	659757		
60449057003	**FAA-6-031424**	Total Radium Calculation	659757		
60449057004	**JEC-FAA-DUP-031424**	Total Radium Calculation	659757		

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-LENE-0009_Sample	WO# : 60449057
	Revision: 2	Effective Date: 01/12/2022

Client Name: Evergy

Courier: FedEx ☐ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☑ Other ☐

Tracking #: _____ Pace Shipping Label Used? Yes ☐ No ☑

Custody Seal on Cooler/Box Present: Yes ☑ No ☐ Seals intact: Yes ☑ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☐ None ☐ Other ☑ Ziplock

Thermometer Used: T298 **Type of Ice:** Wet Blue (None)

Cooler Temperature (°C): **As-read** 19.5 **Corr. Factor** -0.7 **Corrected** 19.2

Date and initials of person examining contents: 03-15-2024

Temperature should be above freezing to 6°C

Chain of Custody present:	☑Yes ☐No ☐N/A	
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	
Samples arrived within holding time:	☑Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☑No ☐N/A	
Rush Turn Around Time requested:	☐Yes ☑No ☐N/A	
Sufficient volume:	☑Yes ☐No ☐N/A	
Correct containers used:	☑Yes ☐No ☐N/A	
Pace containers used:	☑Yes ☐No ☐N/A	
Containers intact:	☑Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☑N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☑N/A	
Sample labels match COC: Date / time / ID / analyses	☑Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: WT	☐Yes ☑No ☐N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO) **LOT#:**	☐Yes ☐No ☑N/A	List sample IDs, volumes, lot #'s of preservative and the date/time added.
Cyanide water sample checks: Lead acetate strip turns dark? (Record only)	☐Yes ☐No	
Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No	
Trip Blank present:	☐Yes ☐No ☑N/A	
Headspace in VOA vials (>6mm):	☐Yes ☐No ☑N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☑N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☑N/A	

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

Pace® Location Requested (City/State):
Pace Analytical Kansas
9608 Loiret Blvd., Lenexa, KS 66219

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

60449057

Scan QR Code for instructions

Company Name:	Evergy Kansas Central, Inc.	Contact/Report To:	Jake Humphrey
Street Address:	818 S Kansas Avenue, Topeka, KS 66612	Phone #:	(913)634-0605
		E-Mail:	jake.humphrey@evergy.com
		Cc E-Mail:	skaney@haleyaldrich.com
Customer Project #:			
Project Name:	JEC FAL CCR RADCHEM	Invoice To:	Jeffrey Center
		Invoice E-Mail:	evergyap@onlinecapturecenter.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	WSTR-2000095397
		Quote #:	

Time Zone Collected: [ ] AK [ ] PT [ ] MT [X] CT [ ] ET

County / State origin of sample(s): Kansas

Data Deliverables:
[ ] Level II [ ] Level III [ ] Level IV
[ ] EQUIS
[ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [X] No

Rush (Pre-approval required):
[ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested:

Field Filtered (if applicable): [ ] Yes [X] No
Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	Radium 226	Radium 228, combined, QC Sheets	Sample Comment
FAA-3-031424	WT	Grab	-	-	3/14/2024	920	2	-	-	X	X	
FAA-4-031324	WT	Grab	-	-	3/13/2024	1630	2	-	-	X	X	
FAA-6-031424	WT	Grab	-	-	3/14/2024	1005	2	-	-	X	X	
JEC-FAA-DUP-031424	WT	Grab	-	-	3/14/2024	1005	2	-	-	X	X	

Specify Container Size **: 1 1
Identify Container Preservative Type***: 2 2
Analysis Requested

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only
Proj. Mgr: Alice Spiller
AcctNum / Client ID:
Table #:
Profile / Template: 9655
Prelog / Bottle Ord. ID: EZ 3080037

Preservation non-conformance identified for sample.

Additional Instructions from Pace®:

Collected By: (Printed Name) Matt VanderPutten
Signature:

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
	T298	-0.3	19.5	19.2	

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
SCS Engineers	03/14/2024 / 1730	DAPAC	3/14/24 1730	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In- Person [ ] Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	[ ] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 1 of 1

Internal Transfer Chain of Custody

☐ Rush Multiplier____X
☒ Samples Pre-Logged into eCOC

State Of Origin: KS
Cert. Needed: ☒ Yes ☐ No
Owner Received Date: 3/14/2024 Results Requested By: 4/12/2024

Workorder: 60449057 **Workorder Name:** JEC FAL CCR RADCHEM

Report To	Subcontract To
Alice Spiller Pace Analytical Kansas 9608 Loiret Blvd. Lenexa, KS 66219 Phone (913)599-5665	Pace Analytical Pittsburgh 1638 Roseytown Road Suites 2,3, & 4 Greensburg, PA 15601 Phone (724)850-5600

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers HNO3	QC Sheets	Radium 226	Radium 228 and combined	LAB USE ONLY
1	FAA-3-031424	PS	3/14/2024 09:20	60449057001	Water	2	X	X	X	001
2	FAA-4-031324	PS	3/13/2024 16:30	60449057002	Water	2	X	X	X	002
3	FAA-6-031424	PS	3/14/2024 10:05	60449057003	Water	2	X	X	X	003
4	JEC-FAA-DUP-031424	PS	3/14/2024 10:05	60449057004	Water	2	X	X	X	004
5										

Transfers	Released By	Date/Time	Received By	Date/Time
1	[signature]	3-18-24 1700	Jessie Scott - Pace	3/19/24 0430
2				
3				

Comments: KS sample location: RECEIVING

Cooler Temperature on Receipt ___ °C | **Custody Seal** Y or (N) | **Received on Ice** Y or (N) | **Samples Intact** (Y) or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.*

WO# : 30669543

ENV-FRM-GBUR-0088 v07_Sample Condition Upon Receipt-Greensburg

Effective Date: 01/04/2024

WO# : 30669543

PM: MAR Due Date: 04/09/24

CLIENT: PACE_60_LEKS

Client Name: Pace KS

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other

Tracking Number: 7146 2376 2228

Initial / Date

Examined By: JS 3/19/24

Labeled By: JS 3/19/24

Temped By: —

Custody Seal on Cooler/Box Present: ☐ Yes ☑ No Seals Intact: ☐ Yes ☑ No

Thermometer Used: — Type of Ice: Wet Blue (None)

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

Temp should be above freezing to 6°C

Comments:	Yes	No	NA	pH paper Lot# 10022931 / D.P.D. Residual Chlorine Lot #
Chain of Custody Present	✓			1.
Chain of Custody Filled Out:	✓			2.
-Were client corrections present on COC		✓		
Chain of Custody Relinquished	✓			3.
Sampler Name & Signature on COC:		✓		4.
Sample Labels match COC:	✓			5.
-Includes date/time/ID Matrix:	WT			
Samples Arrived within Hold Time:	✓			6.
Short Hold Time Analysis (<72hr remaining):		✓		7.
Rush Turn Around Time Requested:		✓		8.
Sufficient Volume:	✓			9.
Correct Containers Used:	✓			10.
-Pace Containers Used	✓			
Containers Intact:	✓			11.
Orthophosphate field filtered:			✓	12.
Hex Cr Aqueous samples field filtered:			✓	13.
Organic Samples checked for dechlorination			✓	14:
Filtered volume received for dissolved tests:			✓	15:
All containers checked for preservation:	✓			16.
exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, non-aqueous matrix				PH<2
All containers meet method preservation requirements:	✓			Initial when completed JS / Date/Time of Preservation / Lot# of added Preservative
8260C/D: Headspace in VOA Vials (> 6mm)			✓	17.
624.1: Headspace in VOA Vials (0mm)			✓	18.
Radon: Headspace in RAD Vials (0mm)			✓	19.
Trip Blank Present:		✓		Trip blank custody seal present? YES or NO
Rad Samples Screened <.05 mrem/hr.	✓			Initial when completed JS / Date: 3/19/24 / Survey Meter SN: 2501/380

Comments:

Note: For NC compliance samples with discrepancies, a copy of this form must be sent to the DEHNR Certification office.
PM Review is documented electronically in LIMS through the SRF Review schedule in the Workorder Edit Screen.

Quality Control Sample Performance Assessment

Pace Analytical™
www.pacelabs.com

Test:	Ra-226
Analyst:	CLM
Date:	3/21/2024
Batch ID:	78253
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	3197469
MB concentration:	0.000
M/B Counting Uncertainty:	0.222
MB MDC:	0.498
MB Numerical Performance Indicator:	0.00
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS78253	LCSD78253
Count Date:	3/29/2024	3/29/2024
Spike I.D.:	23-063	23-063
Spike Concentration (pCi/mL):	32.302	32.302
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.652	0.652
Target Conc. (pCi/L, g, F):	4.957	4.951
Uncertainty (Calculated):	0.233	0.233
Result (pCi/L, g, F):	5.769	6.204
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	1.230	1.222
Numerical Performance Indicator:	1.27	1.98
Percent Recovery:	116.36%	125.32%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	133%	133%
Lower % Recovery Limits:	73%	73%

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:		
Sample I.D.		
Sample MS I.D.		
Sample MSD I.D.		
Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		
Spike Volume Used in MS (mL):		
Spike Volume Used in MSD (mL):		
MS Aliquot (L, g, F):		
MS Target Conc.(pCi/L, g, F):		
MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):		
MS Spike Uncertainty (calculated):		
MSD Spike Uncertainty (calculated):		
Sample Result:		
Sample Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Result:		
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):		
MS Numerical Performance Indicator:		
MSD Numerical Performance Indicator:		
MS Percent Recovery:		
MSD Percent Recovery:		
MS Status vs Numerical Indicator:		
MSD Status vs Numerical Indicator:		
MS Status vs Recovery:		
MSD Status vs Recovery:		
MS/MSD Upper % Recovery Limits:		
MS/MSD Lower % Recovery Limits:		

Duplicate Sample Assessment		
Sample I.D.:	LCS78253	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD78253	
Sample Result (pCi/L, g, F):	5.769	
Sample Result Counting Uncertainty (pCi/L, g, F):	1.230	
Sample Duplicate Result (pCi/L, g, F):	6.204	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	1.222	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	-0.492	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	7.41%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	32%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment		
Sample I.D.		
Sample MS I.D.		
Sample MSD I.D.		
Sample Matrix Spike Result:		
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):		
Duplicate Numerical Performance Indicator:		
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:		
MS/ MSD Duplicate Status vs Numerical Indicator:		
MS/ MSD Duplicate Status vs RPD:		
% RPD Limit:		

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the RL.

Comments:

CLM 4/3/24

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-228
Analyst:	ZPC
Date:	4/1/2024
Worklist:	78254
Matrix:	WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	3197475
MB concentration:	0.246
M/B 2 Sigma CSU:	0.352
MB MDC:	0.756
MB Numerical Performance Indicator:	1.37
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS78254	LCSD78254
Count Date:	4/3/2024	4/3/2024
Spike I.D.:	23-043	23-043
Decay Corrected Spike Concentration (pCi/mL):	37.259	37.259
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.817	0.815
Target Conc. (pCi/L, g, F):	4.562	4.570
Uncertainty (Calculated):	0.224	0.224
Result (pCi/L, g, F):	5.377	6.776
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.254	1.469
Numerical Performance Indicator:	1.25	2.91
Percent Recovery:	117.86%	148.29%
Status vs Numerical Indicator:	N/A	Warning
Status vs Recovery:	Pass	Fail High**
Upper % Recovery Limits:	135%	135%
Lower % Recovery Limits:	60%	60%

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:		
Sample I.D.		
Sample MS I.D.		
Sample MSD I.D.		
Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		
Spike Volume Used in MS (mL):		
Spike Volume Used in MSD (mL):		
MS Aliquot (L, g, F):		
MS Target Conc.(pCi/L, g, F):		
MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):		
MS Spike Uncertainty (calculated):		
MSD Spike Uncertainty (calculated):		
Sample Result:		
Sample Result 2 Sigma CSU (pCi/L, g, F):		
Sample Matrix Spike Result:		
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):		
MS Numerical Performance Indicator:		
MSD Numerical Performance Indicator:		
MS Percent Recovery:		
MSD Percent Recovery:		
MS Status vs Numerical Indicator:		
MSD Status vs Numerical Indicator:		
MS Status vs Recovery:		
MSD Status vs Recovery:		
MS/MSD Upper % Recovery Limits:		
MS/MSD Lower % Recovery Limits:		

Duplicate Sample Assessment		Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:	LCS78254	
Duplicate Sample I.D.	LCSD78254	
Sample Result (pCi/L, g, F):	5.377	
Sample Result 2 Sigma CSU (pCi/L, g, F):	1.254	
Sample Duplicate Result (pCi/L, g, F):	6.776	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.469	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	-1.420	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	22.87%	
Duplicate Status vs Numerical Indicator:	Pass	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	36%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment		
Sample I.D.		
Sample MS I.D.		
Sample MSD I.D.		
Sample Matrix Spike Result:		
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):		
Duplicate Numerical Performance Indicator:		
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:		
MS/ MSD Duplicate Status vs Numerical Indicator:		
MS/ MSD Duplicate Status vs RPD:		
% RPD Limit:		

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

**If all sample results are below MDC, the batch is acceptable, otherwise this batch must be reprepped due to LCSD failure.

only hit is legitimate, confirmed by Re Ingrowth

ZPC

VAL
4/4/24

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

August 02, 2024

Jake Humphrey
Evergy, Inc.
818 S Kansas Avenue
Topeka, KS 66612

RE: Project: MW-FAA-5 RADCHEM-Revised Report
Pace Project No.: 60449058

Dear Jake Humphrey:

Enclosed are the analytical results for sample(s) received by the laboratory on March 14, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Greensburg

REVISED to append QC sheets

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

Sincerely,

Alice Spiller

Alice Spiller
alice.spiller@pacelabs.com
(913)599-5665
PM Lab Management

Enclosures

cc: Shelly Gomez, Evergy
Laura Hines, Evergy, Inc.
Shannon Hughes, Evergy
Adam Irvin, Evergy
Samantha Kaney, Haley & Aldrich
Nick Williams, Haley Aldrich

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

CERTIFICATIONS

Project: MW-FAA-5 RADCHEM-Revised Report
Pace Project No.: 60449058

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE SUMMARY

Project: MW-FAA-5 RADCHEM-Revised Report
Pace Project No.: 60449058

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60449058001	**FAA-5-031324**	Water	03/13/24 10:10	03/14/24 17:30

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Lenexa, KS 66219
(913)599-5665

SAMPLE ANALYTE COUNT

Project: MW-FAA-5 RADCHEM-Revised Report
Pace Project No.: 60449058

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60449058001	**FAA-5-031324**	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

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PROJECT NARRATIVE

Project: MW-FAA-5 RADCHEM-Revised Report
Pace Project No.: 60449058

Method: **EPA 903.1**
Description: 903.1 Radium 226
Client: Evergy Kansas Central, Inc.
Date: August 02, 2024

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

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

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Additional Comments:

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PROJECT NARRATIVE

Project: MW-FAA-5 RADCHEM-Revised Report
Pace Project No.: 60449058

Method: **EPA 904.0**
Description: 904.0 Radium 228
Client: Evergy Kansas Central, Inc.
Date: August 02, 2024

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

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

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Additional Comments:

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PROJECT NARRATIVE

Project: MW-FAA-5 RADCHEM-Revised Report
Pace Project No.: 60449058

Method: **Total Radium Calculation**
Description: Total Radium 228+226
Client: Evergy Kansas Central, Inc.
Date: August 02, 2024

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

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

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Additional Comments:

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

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MW-FAA-5 RADCHEM-Revised Report
Pace Project No.: 60449058

Sample: FAA-5-031324 **Lab ID: 60449058001** Collected: 03/13/24 10:10 Received: 03/14/24 17:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.525 ± 0.447 (0.628) C:NA T:89%**	pCi/L	03/28/24 15:34	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.301 ± 0.366 (0.774) C:81% T:84%**	pCi/L	03/28/24 16:00	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.826 ± 0.813 (1.40)**	pCi/L	04/01/24 16:28	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL - RADIOCHEMISTRY

Project: MW-FAA-5 RADCHEM-Revised Report
Pace Project No.: 60449058

QC Batch: 656262
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 60449058001

METHOD BLANK: 3196770 Matrix: Water
Associated Lab Samples: 60449058001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0481 ± 0.249 (0.517) C:NA T:86%	pCi/L	03/28/24 15:08	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: MW-FAA-5 RADCHEM-Revised Report
Pace Project No.: 60449058

QC Batch: 656265
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 60449058001

METHOD BLANK: 3196781 Matrix: Water
Associated Lab Samples: 60449058001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.312 ± 0.388 (0.821) C:82% T:79%	pCi/L	03/28/24 15:58	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALIFIERS

Project: MW-FAA-5 RADCHEM-Revised Report
Pace Project No.: 60449058

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MW-FAA-5 RADCHEM-Revised Report
Pace Project No.: 60449058

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60449058001	**FAA-5-031324**	EPA 903.1	656262		
60449058001	**FAA-5-031324**	EPA 904.0	656265		
60449058001	**FAA-5-031324**	Total Radium Calculation	658975		

WO# : 60449058

60449058

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-LENE-0009_Sample C		
	Revision: 2	Effective Date: 01/12/2022	Issued By: Lenexa

Client Name: Evergy

Courier: FedEx ☐ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☑ Other ☐

Tracking #: _____ Pace Shipping Label Used? Yes ☐ No ☑

Custody Seal on Cooler/Box Present: Yes ☑ No ☐ Seals intact: Yes ☑ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☐ None ☐ Other ☑ Ziplc

Thermometer Used: T498 **Type of Ice:** Wet Blue (None)

Cooler Temperature (°C): As-read 18.0 Corr. Factor -0.3 Corrected 17.7

Date and initials of person examining contents: 03-15-2024

Temperature should be above freezing to 6°C

Chain of Custody present:	☑Yes ☐No ☐N/A	
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	
Samples arrived within holding time:	☑Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☑No ☐N/A	
Rush Turn Around Time requested:	☐Yes ☑No ☐N/A	
Sufficient volume:	☑Yes ☐No ☐N/A	
Correct containers used:	☑Yes ☐No ☐N/A	
Pace containers used:	☑Yes ☐No ☐N/A	
Containers intact:	☑Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☑N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☑N/A	
Sample labels match COC: Date / time / ID / analyses	☑Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: WT	☐Yes ☑No ☐N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO) **LOT#:**	☐Yes ☐No ☑N/A	List sample IDs, volumes, lot #'s of preservative and the date/time added.
Cyanide water sample checks: Lead acetate strip turns dark? (Record only)	☐Yes ☐No	
Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No	
Trip Blank present:	☐Yes ☐No ☑N/A	
Headspace in VOA vials (>6mm):	☐Yes ☐No ☑N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☑N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☑N/A	

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

Pace® Location Requested (City/State):
Pace Analytical Kansas
9608 Loiret Blvd., Lenexa, KS 66219

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

60449058

Scan QR Code for instructions

Company Name:	Evergy Kansas Central, Inc.	Contact/Report To:	Jake Humphrey
Street Address:	818 S Kansas Avenue, Topeka, KS 66612	Phone #:	(913)634-0605
		E-Mail:	jake.humphrey@evergy.com
		Cc E-Mail:	skaney@haleyaldrich.com
Customer Project #:			
Project Name:	MW-FAA-5 RADCHEM	Invoice To:	Jeffrey Center
		Invoice E-Mail:	evergyap@onlinecapturecenter.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	WSTR-2000095397
		Quote #:	

Time Zone Collected: [ ] AK [ ] PT [ ] MT [X] CT [ ] ET

County / State origin of sample(s): Kansas

Data Deliverables:
[ ] Level II [ ] Level III [ ] Level IV
[ ] EQUIS
[ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [X] No

Rush (Pre-approval required):
[ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested:

Field Filtered (if applicable): [ ] Yes [X] No

Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Specify Container Size **: 1 1

Identify Container Preservative Type***: 2 2

Analysis Requested

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	Radium 226	Radium 228, combined, QC Sheets	Sample Comment
FAA-5-031324	WT	Grab	-	-	3/13/2024	1010	2	-	-	X	X	

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only
Proj. Mgr: Alice Spiller
AcctNum / Client ID:
Table #:
Profile / Template: 9655
Prelog / Bottle Ord. ID: EZ 3080041

Preservation non-conformance identified for sample.

Additional Instructions from Pace®:

Collected By: (Printed Name) Matt VanderPutten

Signature:

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
	T298	-0.3	18.6	18.3	

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
SCS Engineers	03/14/2024 / 1730	JAPaCo	3/14/24 1730	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In- Person [ ] Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	[ ] FedEx [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 1 of 1

Page 4 of 8

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

ENV-FRM-CORQ-0019_v02_110123 ©

Internal Transfer Chain of Custody

☐ Rush Multiplier____X
☒ Samples Pre-Logged into eCOC

State Of Origin: KS
Cert. Needed: ☒ Yes ☐ No

Workorder: 60449058 **Workorder Name:** MW-FAA-5 RADCHEM

Owner Received Date: 3/14/2024 Results Requested By: 4/12/2024

Report To	Subcontract To
Alice Spiller Pace Analytical Kansas 9608 Loiret Blvd. Lenexa, KS 66219 Phone (913)599-5665	Pace Analytical Pittsburgh 1638 Roseytown Road Suites 2,3, & 4 Greensburg, PA 15601 Phone (724)850-5600

						Preserved Containers						Requested Analysis												
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	HNO3						QC Sheets	Radium 226	Radium 228 and combined										LAB USE ONLY
1	FAA-5-031324	PS	3/13/2024 10:10	60449058001	Water	2						X	X	X										001
2																								
3																								
4																								
5																								

Transfers	Released By	Date/Time	Received By	Date/Time
1	[signature]	3.18.24 1700	Jessie Smith-Pace	3/19/24 930
2				
3				

Comments: KS sample location: RECEIVING

Cooler Temperature on Receipt ____ °C | **Custody Seal** Y or (N) | **Received on Ice** Y or (N) | **Samples Intact** (Y) or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.*

WO# : 30669540

WO#: 30669540
PM: MAR Due Date: 04/09/24
CLIENT: PACE_60_LEKS

Client Name: Pace KS Pro

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other
Tracking Number: 7146 2376 2228

Initial / Date
Examined By: JS 3/19/24
Labeled By: JS 3/19/24
Temped By: —

Custody Seal on Cooler/Box Present: ☐ Yes ☑ No Seals Intact: ☐ Yes ☑ No
Thermometer Used: — Type of Ice: Wet Blue (None)
Cooler Temperature: Observed Temp — °C Correction Factor: — °C Final Temp: — °C
Temp should be above freezing to 6°C

Comments:	Yes	No	NA	pH paper Lot# 10D2G31 / D.P.D. Residual Chlorine Lot # —
Chain of Custody Present	✓			1.
Chain of Custody Filled Out:	✓			2.
-Were client corrections present on COC		✓		
Chain of Custody Relinquished	✓			3.
Sampler Name & Signature on COC:		✓		4.
Sample Labels match COC:	✓			5.
-Includes date/time/ID Matrix:	Wt			
Samples Arrived within Hold Time:	✓			6.
Short Hold Time Analysis (<72hr remaining):		✓		7.
Rush Turn Around Time Requested:		✓		8.
Sufficient Volume:	✓			9.
Correct Containers Used:	✓			10.
-Pace Containers Used	✓			
Containers Intact:	✓			11.
Orthophosphate field filtered:			✓	12.
Hex Cr Aqueous samples field filtered:			✓	13.
Organic Samples checked for dechlorination			✓	14:
Filtered volume received for dissolved tests:			✓	15:
All containers checked for preservation:	✓			16.
exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, non-aqueous matrix				pH<2
All containers meet method preservation requirements:	✓			Initial when completed JS / Date/Time of Preservation / Lot# of added Preservative
8260C/D: Headspace in VOA Vials (> 6mm)			✓	17.
624.1: Headspace in VOA Vials (0mm)			✓	18.
Radon: Headspace in RAD Vials (0mm)			✓	19.
Trip Blank Present:		✓		Trip blank custody seal present? YES or NO
Rad Samples Screened <.05 mrem/hr.	✓			Initial when completed JS / Date: 3/19/24 / Survey Meter SN: 25014380

Comments:

Note: For NC compliance samples with discrepancies, a copy of this form must be sent to the DEHNR Certification office.
PM Review is documented electronically in LIMS through the SRF Review schedule in the Workorder Edit Screen.

Quality Control Sample Performance Assessment

Pace Analytical™
www.pacelabs.com

Test:	Ra-226
Analyst:	LL1
Date:	3/20/2024
Batch ID:	78240
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	3196770
MB concentration:	0.048
M/B Counting Uncertainty:	0.249
MB MDC:	0.517
MB Numerical Performance Indicator:	0.38
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS78240	LCSD78240
Count Date:	3/28/2024	3/28/2024
Spike I.D.:	23-063	23-063
Spike Concentration (pCi/mL):	32.302	32.302
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.654	0.651
Target Conc. (pCi/L, g, F):	4.943	4.964
Uncertainty (Calculated):	0.232	0.233
Result (pCi/L, g, F):	5.705	5.044
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	1.057	0.989
Numerical Performance Indicator:	1.38	0.15
Percent Recovery:	115.42%	101.60%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	133%	133%
Lower % Recovery Limits:	73%	73%

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:		
Sample I.D.		
Sample MS I.D.		
Sample MSD I.D.		
Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		
Spike Volume Used in MS (mL):		
Spike Volume Used in MSD (mL):		
MS Aliquot (L, g, F):		
MS Target Conc.(pCi/L, g, F):		
MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):		
MS Spike Uncertainty (calculated):		
MSD Spike Uncertainty (calculated):		
Sample Result:		
Sample Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Result:		
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):		
MS Numerical Performance Indicator:		
MSD Numerical Performance Indicator:		
MS Percent Recovery:		
MSD Percent Recovery:		
MS Status vs Numerical Indicator:		
MSD Status vs Numerical Indicator:		
MS Status vs Recovery:		
MSD Status vs Recovery:		
MS/MSD Upper % Recovery Limits:		
MS/MSD Lower % Recovery Limits:		

Duplicate Sample Assessment		
Sample I.D.:	LCS78240	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD78240	
Sample Result (pCi/L, g, F):	5.705	
Sample Result Counting Uncertainty (pCi/L, g, F):	1.057	
Sample Duplicate Result (pCi/L, g, F):	5.044	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.989	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	0.895	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	12.74%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	32%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment		
Sample I.D.		
Sample MS I.D.		
Sample MSD I.D.		
Sample Matrix Spike Result:		
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):		
Duplicate Numerical Performance Indicator:		
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:		
MS/ MSD Duplicate Status vs Numerical Indicator:		
MS/ MSD Duplicate Status vs RPD:		
% RPD Limit:		

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the RL.

Comments:

CLM 3/28/24

CLM 3/28/24

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-228
Analyst:	ZPC
Date:	3/26/2024
Worklist:	78241
Matrix:	WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	3196781
MB concentration:	0.312
M/B 2 Sigma CSU:	0.388
MB MDC:	0.821
MB Numerical Performance Indicator:	1.58
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS78241	LCSD78241
Count Date:	4/1/2024	3/28/2024
Spike I.D.:	23-043	23-043
Decay Corrected Spike Concentration (pCi/mL):	37.283	37.331
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.818	0.817
Target Conc. (pCi/L, g, F):	4.556	4.568
Uncertainty (Calculated):	0.223	0.224
Result (pCi/L, g, F):	3.417	3.046
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.835	0.764
Numerical Performance Indicator:	-2.58	-3.75
Percent Recovery:	74.98%	66.67%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	135%	135%
Lower % Recovery Limits:	60%	60%

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:		
Sample I.D.		
Sample MS I.D.		
Sample MSD I.D.		
Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		
Spike Volume Used in MS (mL):		
Spike Volume Used in MSD (mL):		
MS Aliquot (L, g, F):		
MS Target Conc.(pCi/L, g, F):		
MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):		
MS Spike Uncertainty (calculated):		
MSD Spike Uncertainty (calculated):		
Sample Result:		
Sample Result 2 Sigma CSU (pCi/L, g, F):		
Sample Matrix Spike Result:		
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):		
MS Numerical Performance Indicator:		
MSD Numerical Performance Indicator:		
MS Percent Recovery:		
MSD Percent Recovery:		
MS Status vs Numerical Indicator:		
MSD Status vs Numerical Indicator:		
MS Status vs Recovery:		
MSD Status vs Recovery:		
MS/MSD Upper % Recovery Limits:		
MS/MSD Lower % Recovery Limits:		

Duplicate Sample Assessment		
Sample I.D.:	LCS78241	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD78241	
Sample Result (pCi/L, g, F):	3.417	
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.835	
Sample Duplicate Result (pCi/L, g, F):	3.046	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.764	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	0.643	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	11.74%	
Duplicate Status vs Numerical Indicator:	Pass	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	36%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment		
Sample I.D.		
Sample MS I.D.		
Sample MSD I.D.		
Sample Matrix Spike Result:		
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):		
Duplicate Numerical Performance Indicator:		
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:		
MS/ MSD Duplicate Status vs Numerical Indicator:		
MS/ MSD Duplicate Status vs RPD:		
% RPD Limit:		

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

4/1/24

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

June 02, 2024

Jake Humphrey
Evergy, Inc.
818 S Kansas Avenue
Topeka, KS 66612

RE: Project: JEC FAL CCR
Pace Project No.: 60453066

Dear Jake Humphrey:

Enclosed are the analytical results for sample(s) received by the laboratory on May 16, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Kansas City

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

Sincerely,

Alice Spiller

Alice Spiller
alice.spiller@pacelabs.com
(913)599-5665
PM Lab Management

Enclosures

cc: Shelly Gomez, Evergy
Laura Hines, Evergy, Inc.
Shannon Hughes, Evergy
Adam Irvin, Evergy
Samantha Kaney, Haley & Aldrich
Andrew Watson, Haley & Aldrich

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

CERTIFICATIONS

Project: JEC FAL CCR
Pace Project No.: 60453066

Pace Analytical Services Kansas

9608 Loiret Boulevard, Lenexa, KS 66219
Arkansas Inorganic Drinking Water Certification
Arkansas Certification #: 88-00679
Illinois Certification #: 2000302023-6
Colorado Division of Oil and Public Safety
Iowa Certification #: 118
Kansas Field Laboratory Certification #: E-92587
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Missouri Inorganic Drinking Water Certification
Nevada Certification #: KS000212024-1
Oklahoma Certification #: 2023-073
Texas Certification #: T104704407-23-17
Utah Certification #: KS000212022-13

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE SUMMARY

Project: JEC FAL CCR
Pace Project No.: 60453066

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60453066001	**FAA-6**	Water	05/14/24 10:05	05/16/24 10:15

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE ANALYTE COUNT

Project: JEC FAL CCR
Pace Project No.: 60453066

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60453066001	**FAA-6**	EPA 200.8	JGP	1	PASI-K

PASI-K = Pace Analytical Services - Kansas City

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: JEC FAL CCR
Pace Project No.: 60453066

Method: **EPA 200.8**
Description: 200.8 MET ICPMS
Client: Evergy Kansas Central, Inc.
Date: June 02, 2024

General Information:
1 sample was analyzed for EPA 200.8 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 200.8 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Additional Comments:

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

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: JEC FAL CCR
Pace Project No.: 60453066

Sample: FAA-6 **Lab ID: 60453066001** Collected: 05/14/24 10:05 Received: 05/16/24 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City							
Arsenic, Total Recoverable	**0.0084**	mg/L	0.0010	1	05/22/24 11:07	05/30/24 11:39	7440-38-2	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: JEC FAL CCR
Pace Project No.: 60453066

QC Batch: 895372
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60453066001

METHOD BLANK: 3543596 Matrix: Water
Associated Lab Samples: 60453066001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	<0.0010	0.0010	05/30/24 11:18	

LABORATORY CONTROL SAMPLE: 3543597

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.04	0.039	98	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3543598 3543599

Parameter	Units	60452951001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	6.0 ug/L	0.04	0.04	0.044	0.045	96	98	70-130	2	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALIFIERS

Project: JEC FAL CCR
Pace Project No.: 60453066

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

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

TNI - The NELAC Institute.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: JEC FAL CCR
Pace Project No.: 60453066

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60453066001	**FAA-6**	EPA 200.8	895372	EPA 200.8	895477

WO# : 60453066

60453066

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-LENE-0009_Sample Co		
	Revision: 2	Effective Date: 01/12/2022	Issued By: Lenexa

Client Name: Evergy Kansas Central

Courier: FedEx ☐ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☑ Other ☐

Tracking #: _____ Pace Shipping Label Used? Yes ☐ No ☑

Custody Seal on Cooler/Box Present: Yes ☑ No ☐ Seals intact: Yes ☑ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☐ None ☑ Other ☐

Thermometer Used: T299 **Type of Ice:** (Wet) Blue None

Cooler Temperature (°C): **As-read** 0.5 **Corr. Factor** 0.0 **Corrected** 0.5

Date and initials of person examining contents: AF 5/16

Temperature should be above freezing to 6°C

Chain of Custody present:	☑Yes ☐No ☐N/A	
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	
Samples arrived within holding time:	☑Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☑No ☐N/A	
Rush Turn Around Time requested:	☐Yes ☑No ☐N/A	
Sufficient volume:	☑Yes ☐No ☐N/A	
Correct containers used:	☑Yes ☐No ☐N/A	
Pace containers used:	☑Yes ☐No ☐N/A	
Containers intact:	☑Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☑N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☑N/A	
Sample labels match COC: Date / time / ID / analyses	☑Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: WT	☐Yes ☑No ☐N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO) **LOT#:** 6308010	☑Yes ☐No ☐N/A	List sample IDs, volumes, lot #'s of preservative and the date/time added.
Cyanide water sample checks: Lead acetate strip turns dark? (Record only)	☐Yes ☐No	
Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No	
Trip Blank present:	☐Yes ☐No ☑N/A	
Headspace in VOA vials (>6mm):	☐Yes ☐No ☑N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☑N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☑N/A	

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

Pace® Location Requested (City/State):
Pace Analytical Kansas
9608 Loiret Blvd., Lenexa, KS 66219

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

Scan QR Code for instructions

Company Name:	Evergy Kansas Central, Inc.	Contact/Report To:	Jake Humphrey
Street Address:	818 S Kansas Avenue, Topeka, KS 66612	Phone #:	(913)634-0605
		E-Mail:	jake.humphrey@evergy.com
		Cc E-Mail:	
Customer Project #:			
Project Name:	JEC FAL CCR	Invoice To:	Lawrence Center
		Invoice E-Mail:	evergyap@onlinecapturecenter.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	WSTR-2000095397
		Quote #:	

Time Zone Collected: [ ] AK [ ] PT [ ] MT [X] CT [ ] ET

County / State origin of sample(s): Kansas

Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [X] No

Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [X] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested: Std

Field Filtered (if applicable): [ ] Yes [X] No

Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	200.8 As	Sample Comment
FAA-6	WT	Grab	-	-	5/14/24	1005	1	-	-	X	60453066

Specify Container Size **: 3

Identify Container Preservative Type***: 2

Analysis Requested

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only

Proj. Mgr: Alice Spiller

AcctNum / Client ID:

Table #:

Profile / Template: 9655

Prelog / Bottle Ord. ID: EZ 3107180

Preservation non-conformance identified for sample.

Additional Instructions from Pace®:

Collected By: (Printed Name) Matt VanderPutten

Signature:

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
	T299	0.0	0-5	0-5	

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
/ SCS	5/16/24 1012	JAPAC	5/16/24 1015	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In- Person [ ] Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	[ ] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 1 of 1

ATTACHMENT 2-2
June 2024 Annual Assessment Sampling Event
Laboratory Analytical Report

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

August 01, 2024

Jake Humphrey
Evergy, Inc.
818 S Kansas Avenue
Topeka, KS 66612

RE: Project: JEC FAL CCR-Revised Report
Pace Project No.: 60455244

Dear Jake Humphrey:

Enclosed are the analytical results for sample(s) received by the laboratory on June 19, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Kansas City

REVISED to correct 200.7 metals list to match request on coc.

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

Sincerely,

Alice Spiller

Alice Spiller
alice.spiller@pacelabs.com
(913)599-5665
PM Lab Management

Enclosures

cc: Shelly Gomez, Evergy
Laura Hines, Evergy, Inc.
Shannon Hughes, Evergy
Adam Irvin, Evergy
Samantha Kaney, Haley & Aldrich
Nick Williams, Haley Aldrich

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

CERTIFICATIONS

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60455244

Pace Analytical Services Kansas
9608 Loiret Boulevard, Lenexa, KS 66219
Arkansas Certification #: 88-00679
Illinois Certification #: 2000302023-6
Colorado Division of Oil and Public Safety
Iowa Certification #: 118
Kansas Field Laboratory Certification #: E-92587
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Missouri Inorganic Drinking Water Certification
Nevada Certification #: KS000212024-1
Oklahoma Certification #: 2023-073
Texas Certification #: T104704407-23-17
Utah Certification #: KS000212022-13

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE SUMMARY

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60455244

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60455244001	**FAA-3-061924**	Water	06/19/24 10:35	06/19/24 16:00
60455244002	**FAA-4-061924**	Water	06/19/24 11:20	06/19/24 16:00
60455244003	**FAA-5-061924**	Water	06/19/24 12:10	06/19/24 16:00
60455244004	**FAA-6-061924**	Water	06/19/24 09:35	06/19/24 16:00
60455244005	**JEC-FAA-DUP-061924**	Water	06/19/24 09:35	06/19/24 16:00

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE ANALYTE COUNT

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60455244

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60455244001	**FAA-3-061924**	EPA 200.7	ARMN	4	PASI-K
		EPA 6010	ARMN	1	PASI-K
		EPA 200.8	JXD	7	PASI-K
		EPA 245.1	MLD	1	PASI-K
		EPA 300.0	PL	1	PASI-K
60455244002	**FAA-4-061924**	EPA 200.7	ARMN	4	PASI-K
		EPA 6010	ARMN	1	PASI-K
		EPA 200.8	JXD	7	PASI-K
		EPA 245.1	MLD	1	PASI-K
		EPA 300.0	PL	1	PASI-K
60455244003	**FAA-5-061924**	EPA 200.7	ARMN	4	PASI-K
		EPA 6010	ARMN	1	PASI-K
		EPA 200.8	JXD	7	PASI-K
		EPA 245.1	MLD	1	PASI-K
		EPA 300.0	PL	1	PASI-K
60455244004	**FAA-6-061924**	EPA 200.7	ARMN	4	PASI-K
		EPA 6010	ARMN	1	PASI-K
		EPA 200.8	JXD	7	PASI-K
		EPA 245.1	MLD	1	PASI-K
		EPA 300.0	PL	1	PASI-K
60455244005	**JEC-FAA-DUP-061924**	EPA 200.7	ARMN	4	PASI-K
		EPA 6010	ARMN	1	PASI-K
		EPA 200.8	JXD	7	PASI-K
		EPA 245.1	MLD	1	PASI-K
		EPA 300.0	PL	1	PASI-K

PASI-K = Pace Analytical Services - Kansas City

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60455244

Method: **EPA 200.7**
Description: 200.7 Metals, Total
Client: Evergy Kansas Central, Inc.
Date: August 01, 2024

General Information:
5 samples were analyzed for EPA 200.7 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 200.7 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Additional Comments:

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60455244

Method: **EPA 6010**
Description: 6010 MET ICP
Client: Evergy Kansas Central, Inc.
Date: August 01, 2024

General Information:
5 samples were analyzed for EPA 6010 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Additional Comments:

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60455244

Method: **EPA 200.8**
Description: 200.8 MET ICPMS
Client: Evergy Kansas Central, Inc.
Date: August 01, 2024

General Information:
5 samples were analyzed for EPA 200.8 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 200.8 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Additional Comments:

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60455244

Method: **EPA 245.1**
Description: 245.1 Mercury
Client: Evergy Kansas Central, Inc.
Date: August 01, 2024

General Information:
5 samples were analyzed for EPA 245.1 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 245.1 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Additional Comments:

Pace Analytical Services, LLC
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Lenexa, KS 66219
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PROJECT NARRATIVE

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60455244

Method: **EPA 300.0**
Description: 300.0 IC Anions 28 Days
Client: Evergy Kansas Central, Inc.
Date: August 01, 2024

General Information:
5 samples were analyzed for EPA 300.0 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Additional Comments:

Analyte Comments:

QC Batch: 899592

N2: The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

- BLANK (Lab ID: 3560933)
  - Fluoride
- BLANK (Lab ID: 3563283)
  - Fluoride
- FAA-3-061924 (Lab ID: 60455244001)
  - Fluoride
- FAA-4-061924 (Lab ID: 60455244002)
  - Fluoride
- FAA-5-061924 (Lab ID: 60455244003)
  - Fluoride
- FAA-6-061924 (Lab ID: 60455244004)
  - Fluoride
- JEC-FAA-DUP-061924 (Lab ID: 60455244005)
  - Fluoride
- LCS (Lab ID: 3560934)
  - Fluoride
- LCS (Lab ID: 3563284)
  - Fluoride
- MS (Lab ID: 3560935)
  - Fluoride
- MS (Lab ID: 3560937)
  - Fluoride

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PROJECT NARRATIVE

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60455244

Method: **EPA 300.0**
Description: 300.0 IC Anions 28 Days
Client: Evergy Kansas Central, Inc.
Date: August 01, 2024

Analyte Comments:

QC Batch: 899592

N2: The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

- MSD (Lab ID: 3560936)
  - Fluoride

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

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ANALYTICAL RESULTS

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60455244

Sample: FAA-3-061924 **Lab ID: 60455244001** Collected: 06/19/24 10:35 Received: 06/19/24 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City							
Barium, Total Recoverable	**0.025**	mg/L	0.0050	1	06/21/24 09:48	06/24/24 11:30	7440-39-3	
Beryllium, Total Recoverable	**<0.0010**	mg/L	0.0010	1	06/21/24 09:48	06/24/24 11:30	7440-41-7	
Chromium, Total Recoverable	**<0.0050**	mg/L	0.0050	1	06/21/24 09:48	06/24/24 11:30	7440-47-3	
Lead, Total Recoverable	**<0.010**	mg/L	0.010	1	06/21/24 09:48	06/24/24 11:30	7439-92-1	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Kansas City							
Lithium, Total Recoverable	**0.020**	mg/L	0.010	1	06/24/24 08:50	07/03/24 12:14	7439-93-2	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City							
Antimony, Total Recoverable	**<0.0010**	mg/L	0.0010	1	06/21/24 12:08	06/28/24 13:25	7440-36-0	
Arsenic, Total Recoverable	**<0.0010**	mg/L	0.0010	1	06/21/24 12:08	06/28/24 13:25	7440-38-2	
Cadmium, Total Recoverable	**<0.00050**	mg/L	0.00050	1	06/21/24 12:08	06/28/24 13:25	7440-43-9	
Cobalt, Total Recoverable	**<0.0010**	mg/L	0.0010	1	06/21/24 12:08	06/28/24 13:25	7440-48-4	
Molybdenum, Total Recoverable	**0.0039**	mg/L	0.0010	1	06/21/24 12:08	06/28/24 13:25	7439-98-7	
Selenium, Total Recoverable	**<0.0010**	mg/L	0.0010	1	06/21/24 12:08	06/28/24 13:25	7782-49-2	
Thallium, Total Recoverable	**<0.0010**	mg/L	0.0010	1	06/21/24 12:08	06/28/24 13:25	7440-28-0	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Kansas City							
Mercury	**<0.20**	ug/L	0.20	1	06/27/24 13:39	06/28/24 14:11	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City							
Fluoride	**0.63**	mg/L	0.20	1		06/26/24 21:03	16984-48-8	N2

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60455244

Sample: FAA-4-061924 **Lab ID: 60455244002** Collected: 06/19/24 11:20 Received: 06/19/24 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City							
Barium, Total Recoverable	**0.044**	mg/L	0.0050	1	06/21/24 09:48	06/24/24 11:32	7440-39-3	
Beryllium, Total Recoverable	**<0.0010**	mg/L	0.0010	1	06/21/24 09:48	06/24/24 11:32	7440-41-7	
Chromium, Total Recoverable	**<0.0050**	mg/L	0.0050	1	06/21/24 09:48	06/24/24 11:32	7440-47-3	
Lead, Total Recoverable	**<0.010**	mg/L	0.010	1	06/21/24 09:48	06/24/24 11:32	7439-92-1	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Kansas City							
Lithium, Total Recoverable	**0.026**	mg/L	0.010	1	06/24/24 08:50	07/03/24 12:19	7439-93-2	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City							
Antimony, Total Recoverable	**<0.0010**	mg/L	0.0010	1	06/21/24 12:08	06/28/24 13:34	7440-36-0	
Arsenic, Total Recoverable	**<0.0010**	mg/L	0.0010	1	06/21/24 12:08	06/28/24 13:34	7440-38-2	
Cadmium, Total Recoverable	**<0.00050**	mg/L	0.00050	1	06/21/24 12:08	06/28/24 13:34	7440-43-9	
Cobalt, Total Recoverable	**<0.0010**	mg/L	0.0010	1	06/21/24 12:08	06/28/24 13:34	7440-48-4	
Molybdenum, Total Recoverable	**0.0079**	mg/L	0.0010	1	06/21/24 12:08	06/28/24 13:34	7439-98-7	
Selenium, Total Recoverable	**<0.0010**	mg/L	0.0010	1	06/21/24 12:08	06/28/24 13:34	7782-49-2	
Thallium, Total Recoverable	**<0.0010**	mg/L	0.0010	1	06/21/24 12:08	06/28/24 13:34	7440-28-0	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Kansas City							
Mercury	**0.91**	ug/L	0.20	1	06/27/24 13:39	06/28/24 14:13	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City							
Fluoride	**<0.20**	mg/L	0.20	1		06/26/24 21:21	16984-48-8	N2

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60455244

Sample: FAA-5-061924 **Lab ID: 60455244003** Collected: 06/19/24 12:10 Received: 06/19/24 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City							
Barium, Total Recoverable	**<0.0050**	mg/L	0.0050	1	06/21/24 09:48	06/24/24 11:35	7440-39-3	
Beryllium, Total Recoverable	**<0.0010**	mg/L	0.0010	1	06/21/24 09:48	06/24/24 11:35	7440-41-7	
Chromium, Total Recoverable	**<0.0050**	mg/L	0.0050	1	06/21/24 09:48	06/24/24 11:35	7440-47-3	
Lead, Total Recoverable	**<0.010**	mg/L	0.010	1	06/21/24 09:48	06/24/24 11:35	7439-92-1	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Kansas City							
Lithium, Total Recoverable	**0.15**	mg/L	0.010	1	06/24/24 08:50	07/03/24 12:21	7439-93-2	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City							
Antimony, Total Recoverable	**<0.0010**	mg/L	0.0010	1	06/21/24 12:08	06/28/24 13:38	7440-36-0	
Arsenic, Total Recoverable	**<0.0010**	mg/L	0.0010	1	06/21/24 12:08	06/28/24 13:38	7440-38-2	
Cadmium, Total Recoverable	**<0.00050**	mg/L	0.00050	1	06/21/24 12:08	06/28/24 13:38	7440-43-9	
Cobalt, Total Recoverable	**0.0022**	mg/L	0.0010	1	06/21/24 12:08	06/28/24 13:38	7440-48-4	
Molybdenum, Total Recoverable	**0.022**	mg/L	0.0010	1	06/21/24 12:08	06/28/24 13:38	7439-98-7	
Selenium, Total Recoverable	**<0.0010**	mg/L	0.0010	1	06/21/24 12:08	06/28/24 13:38	7782-49-2	
Thallium, Total Recoverable	**<0.0010**	mg/L	0.0010	1	06/21/24 12:08	06/28/24 13:38	7440-28-0	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Kansas City							
Mercury	**<0.20**	ug/L	0.20	1	06/27/24 13:39	06/28/24 14:15	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City							
Fluoride	**1.3**	mg/L	0.20	1		06/26/24 22:17	16984-48-8	N2

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60455244

Sample: FAA-6-061924 **Lab ID: 60455244004** Collected: 06/19/24 09:35 Received: 06/19/24 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City							
Barium, Total Recoverable	**0.019**	mg/L	0.0050	1	06/21/24 09:48	06/24/24 11:37	7440-39-3	
Beryllium, Total Recoverable	**<0.0010**	mg/L	0.0010	1	06/21/24 09:48	06/24/24 11:37	7440-41-7	
Chromium, Total Recoverable	**<0.0050**	mg/L	0.0050	1	06/21/24 09:48	06/24/24 11:37	7440-47-3	
Lead, Total Recoverable	**<0.010**	mg/L	0.010	1	06/21/24 09:48	06/24/24 11:37	7439-92-1	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Kansas City							
Lithium, Total Recoverable	**<0.010**	mg/L	0.010	1	06/24/24 08:50	07/03/24 12:23	7439-93-2	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City							
Antimony, Total Recoverable	**<0.0010**	mg/L	0.0010	1	06/21/24 12:08	06/28/24 13:44	7440-36-0	
Arsenic, Total Recoverable	**0.0099**	mg/L	0.0010	1	06/21/24 12:08	06/28/24 13:44	7440-38-2	
Cadmium, Total Recoverable	**<0.00050**	mg/L	0.00050	1	06/21/24 12:08	06/28/24 13:44	7440-43-9	
Cobalt, Total Recoverable	**<0.0010**	mg/L	0.0010	1	06/21/24 12:08	06/28/24 13:44	7440-48-4	
Molybdenum, Total Recoverable	**0.36**	mg/L	0.0010	1	06/21/24 12:08	06/28/24 13:44	7439-98-7	
Selenium, Total Recoverable	**<0.0010**	mg/L	0.0010	1	06/21/24 12:08	06/28/24 13:44	7782-49-2	
Thallium, Total Recoverable	**<0.0010**	mg/L	0.0010	1	06/21/24 12:08	06/28/24 13:44	7440-28-0	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Kansas City							
Mercury	**<0.20**	ug/L	0.20	1	06/27/24 13:39	06/28/24 14:20	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City							
Fluoride	**<0.20**	mg/L	0.20	1		06/26/24 22:35	16984-48-8	N2

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60455244

Sample: JEC-FAA-DUP-061924 **Lab ID: 60455244005** Collected: 06/19/24 09:35 Received: 06/19/24 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City							
Barium, Total Recoverable	**0.018**	mg/L	0.0050	1	06/21/24 09:48	06/24/24 11:38	7440-39-3	
Beryllium, Total Recoverable	**<0.0010**	mg/L	0.0010	1	06/21/24 09:48	06/24/24 11:38	7440-41-7	
Chromium, Total Recoverable	**<0.0050**	mg/L	0.0050	1	06/21/24 09:48	06/24/24 11:38	7440-47-3	
Lead, Total Recoverable	**<0.010**	mg/L	0.010	1	06/21/24 09:48	06/24/24 11:38	7439-92-1	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Kansas City							
Lithium, Total Recoverable	**<0.010**	mg/L	0.010	1	06/24/24 08:50	07/03/24 12:24	7439-93-2	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City							
Antimony, Total Recoverable	**<0.0010**	mg/L	0.0010	1	06/21/24 12:08	06/28/24 13:47	7440-36-0	
Arsenic, Total Recoverable	**0.010**	mg/L	0.0010	1	06/21/24 12:08	06/28/24 13:47	7440-38-2	
Cadmium, Total Recoverable	**<0.00050**	mg/L	0.00050	1	06/21/24 12:08	06/28/24 13:47	7440-43-9	
Cobalt, Total Recoverable	**<0.0010**	mg/L	0.0010	1	06/21/24 12:08	06/28/24 13:47	7440-48-4	
Molybdenum, Total Recoverable	**0.37**	mg/L	0.0010	1	06/21/24 12:08	06/28/24 13:47	7439-98-7	
Selenium, Total Recoverable	**<0.0010**	mg/L	0.0010	1	06/21/24 12:08	06/28/24 13:47	7782-49-2	
Thallium, Total Recoverable	**<0.0010**	mg/L	0.0010	1	06/21/24 12:08	06/28/24 13:47	7440-28-0	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Kansas City							
Mercury	**<0.20**	ug/L	0.20	1	06/27/24 13:39	06/28/24 14:22	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City							
Fluoride	**<0.20**	mg/L	0.20	1		06/26/24 22:53	16984-48-8	N2

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60455244

QC Batch: 899929
QC Batch Method: EPA 245.1
Analysis Method: EPA 245.1
Analysis Description: 245.1 Mercury
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60455244001, 60455244002, 60455244003, 60455244004, 60455244005

METHOD BLANK: 3562080 Matrix: Water
Associated Lab Samples: 60455244001, 60455244002, 60455244003, 60455244004, 60455244005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	<0.20	0.20	06/28/24 13:41	

LABORATORY CONTROL SAMPLE: 3562081

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.3	86	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3562082 3562083

Parameter	Units	60455226001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.20	5	5	4.4	4.3	88	86	70-130	2	20	

MATRIX SPIKE SAMPLE: 3562084

Parameter	Units	60455244003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	<0.20	5	4.4	87	70-130	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60455244

QC Batch: 899115
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 Metals, Total
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60455244001, 60455244002, 60455244003, 60455244004, 60455244005

METHOD BLANK: 3558880 Matrix: Water
Associated Lab Samples: 60455244001, 60455244002, 60455244003, 60455244004, 60455244005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Barium	mg/L	<0.0050	0.0050	06/24/24 11:04	
Beryllium	mg/L	<0.0010	0.0010	06/24/24 11:04	
Chromium	mg/L	<0.0050	0.0050	06/24/24 11:04	
Lead	mg/L	<0.010	0.010	06/24/24 11:04	

LABORATORY CONTROL SAMPLE: 3558881

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium	mg/L	1	0.95	95	85-115	
Beryllium	mg/L	1	0.97	97	85-115	
Chromium	mg/L	1	0.95	95	85-115	
Lead	mg/L	1	1.0	100	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3558882 3558883

Parameter	Units	60455258001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	11.6 ug/L	1	1	0.97	0.94	96	93	70-130	3	20	
Beryllium	mg/L	ND	1	1	0.95	0.96	95	96	70-130	0	20	
Chromium	mg/L	28.0 ug/L	1	1	0.94	0.95	92	92	70-130	1	20	
Lead	mg/L	ND	1	1	0.91	0.90	91	90	70-130	1	20	

MATRIX SPIKE SAMPLE: 3558884

Parameter	Units	60455244002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Barium	mg/L	0.044	1	0.98	93	70-130	
Beryllium	mg/L	<0.0010	1	0.95	95	70-130	
Chromium	mg/L	<0.0050	1	0.94	94	70-130	
Lead	mg/L	<0.010	1	0.95	95	70-130	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60455244

QC Batch: 899159
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60455244001, 60455244002, 60455244003, 60455244004, 60455244005

METHOD BLANK: 3559112 Matrix: Water
Associated Lab Samples: 60455244001, 60455244002, 60455244003, 60455244004, 60455244005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	mg/L	<0.0010	0.0010	06/28/24 13:19	
Arsenic	mg/L	<0.0010	0.0010	06/28/24 13:19	
Cadmium	mg/L	<0.00050	0.00050	06/28/24 13:19	
Cobalt	mg/L	<0.0010	0.0010	06/28/24 13:19	
Molybdenum	mg/L	<0.0010	0.0010	06/28/24 13:19	
Selenium	mg/L	<0.0010	0.0010	06/28/24 13:19	
Thallium	mg/L	<0.0010	0.0010	06/28/24 13:19	

LABORATORY CONTROL SAMPLE: 3559113

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.04	0.040	99	85-115	
Arsenic	mg/L	0.04	0.039	97	85-115	
Cadmium	mg/L	0.04	0.040	100	85-115	
Cobalt	mg/L	0.04	0.039	98	85-115	
Molybdenum	mg/L	0.04	0.040	99	85-115	
Selenium	mg/L	0.04	0.040	100	85-115	
Thallium	mg/L	0.04	0.041	103	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3559114 3559115

Parameter	Units	60455244001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	<0.0010	0.04	0.04	0.037	0.038	93	95	70-130	2	20	
Arsenic	mg/L	<0.0010	0.04	0.04	0.039	0.040	96	98	70-130	2	20	
Cadmium	mg/L	<0.00050	0.04	0.04	0.036	0.036	89	91	70-130	2	20	
Cobalt	mg/L	<0.0010	0.04	0.04	0.037	0.038	91	93	70-130	2	20	
Molybdenum	mg/L	0.0039	0.04	0.04	0.045	0.046	103	106	70-130	3	20	
Selenium	mg/L	<0.0010	0.04	0.04	0.039	0.039	97	98	70-130	1	20	
Thallium	mg/L	<0.0010	0.04	0.04	0.039	0.040	96	99	70-130	3	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60455244

QC Batch: 899281
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60455244001, 60455244002, 60455244003, 60455244004, 60455244005

METHOD BLANK: 3559716 Matrix: Water
Associated Lab Samples: 60455244001, 60455244002, 60455244003, 60455244004, 60455244005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lithium	mg/L	<0.010	0.010	07/03/24 12:11	

LABORATORY CONTROL SAMPLE: 3559717

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lithium	mg/L	1	1.0	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3559718 3559719

Parameter	Units	60455244005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lithium	mg/L	<0.010	1	1	1.1	1.1	106	107	75-125	0	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60455244

QC Batch: 899592 — Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 — Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60455244001, 60455244002, 60455244003, 60455244004, 60455244005

METHOD BLANK: 3560933 — Matrix: Water
Associated Lab Samples: 60455244001, 60455244002, 60455244003, 60455244004, 60455244005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Fluoride	mg/L	<0.20	0.20	06/26/24 14:56	N2

METHOD BLANK: 3563283 — Matrix: Water
Associated Lab Samples: 60455244001, 60455244002, 60455244003, 60455244004, 60455244005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Fluoride	mg/L	<0.20	0.20	06/27/24 08:49	N2

LABORATORY CONTROL SAMPLE: 3560934

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	2.5	2.4	97	90-110	N2

LABORATORY CONTROL SAMPLE: 3563284

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	2.5	2.5	102	90-110	N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3560935 3560936

Parameter	Units	60455334001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	2.2	2.5	2.5	4.8	4.6	104	98	80-120	3	15	N2

MATRIX SPIKE SAMPLE: 3560937

Parameter	Units	60455199003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	ND	2.5	2.6	106	80-120	N2

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALIFIERS

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60455244

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: JEC FAL CCR-Revised Report
Pace Project No.: 60455244

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60455244001	**FAA-3-061924**	EPA 200.7	899115	EPA 200.7	899144
60455244002	**FAA-4-061924**	EPA 200.7	899115	EPA 200.7	899144
60455244003	**FAA-5-061924**	EPA 200.7	899115	EPA 200.7	899144
60455244004	**FAA-6-061924**	EPA 200.7	899115	EPA 200.7	899144
60455244005	**JEC-FAA-DUP-061924**	EPA 200.7	899115	EPA 200.7	899144
60455244001	**FAA-3-061924**	EPA 3010	899281	EPA 6010	899338
60455244002	**FAA-4-061924**	EPA 3010	899281	EPA 6010	899338
60455244003	**FAA-5-061924**	EPA 3010	899281	EPA 6010	899338
60455244004	**FAA-6-061924**	EPA 3010	899281	EPA 6010	899338
60455244005	**JEC-FAA-DUP-061924**	EPA 3010	899281	EPA 6010	899338
60455244001	**FAA-3-061924**	EPA 200.8	899159	EPA 200.8	899179
60455244002	**FAA-4-061924**	EPA 200.8	899159	EPA 200.8	899179
60455244003	**FAA-5-061924**	EPA 200.8	899159	EPA 200.8	899179
60455244004	**FAA-6-061924**	EPA 200.8	899159	EPA 200.8	899179
60455244005	**JEC-FAA-DUP-061924**	EPA 200.8	899159	EPA 200.8	899179
60455244001	**FAA-3-061924**	EPA 245.1	899929	EPA 245.1	900010
60455244002	**FAA-4-061924**	EPA 245.1	899929	EPA 245.1	900010
60455244003	**FAA-5-061924**	EPA 245.1	899929	EPA 245.1	900010
60455244004	**FAA-6-061924**	EPA 245.1	899929	EPA 245.1	900010
60455244005	**JEC-FAA-DUP-061924**	EPA 245.1	899929	EPA 245.1	900010
60455244001	**FAA-3-061924**	EPA 300.0	899592		
60455244002	**FAA-4-061924**	EPA 300.0	899592		
60455244003	**FAA-5-061924**	EPA 300.0	899592		
60455244004	**FAA-6-061924**	EPA 300.0	899592		
60455244005	**JEC-FAA-DUP-061924**	EPA 300.0	899592		

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-LENE-0009_Sample Con	
	Revision: 2	Effective Date: 01/12/2022

WO# : 60455244

60455244

Client Name: Evergy Kansas Central, Inc.

Courier: FedEx ☐ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☒ Other ☐

Tracking #: _____ Pace Shipping Label Used? Yes ☐ No ☑

Custody Seal on Cooler/Box Present: Yes ☐ No ☐ Seals intact: Yes ☐ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☐ None ☒ Other ☐

Thermometer Used: T-299 **Type of Ice:** Wet Blue None

Cooler Temperature (°C): **As-read** 1.8 **Corr. Factor** -0.0 **Corrected** 1.8

Date and initials of person examining contents: 6/20/24 KL

Temperature should be above freezing to 6°C

Chain of Custody present:	☒Yes ☐No ☐N/A	
Chain of Custody relinquished:	☐Yes ☒No ☐N/A	
Samples arrived within holding time:	☒Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☐No ☒N/A	
Rush Turn Around Time requested:	☐Yes ☒No ☐N/A	
Sufficient volume:	☒Yes ☐No ☐N/A	
Correct containers used:	☒Yes ☐No ☐N/A	
Pace containers used:	☒Yes ☐No ☐N/A	
Containers intact:	☒Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☒N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☒N/A	
Sample labels match COC: Date / time / ID / analyses	☒Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: WT	☐Yes ☒No ☐N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO) LOT#:	☐Yes ☐No ☑N/A	List sample IDs, volumes, lot #'s of preservative and the date/time added.
Cyanide water sample checks: Lead acetate strip turns dark? (Record only)	☐Yes ☒No	
Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No	
Trip Blank present:	KL ~~☒Yes~~ ☐No ☒N/A	
Headspace in VOA vials (>6mm):	☐Yes ☐No ☒N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☒N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☒N/A	

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

Qualtrax Document ID: 30468

Pace® Location Requested (City/State):
Pace Analytical Kansas
9608 Loiret Blvd., Lenexa, KS 66219

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

WO# : 60455244

PM: AS **Due Date: 07/05/24**

CLIENT: WESTAR ENRGY

Company Name: **Evergy Kansas Central, Inc.**
Street Address: **818 S Kansas Avenue, Topeka, KS 66612**

Customer Project #:
Project Name: **JEC FAL CCR**
Site Collection Info/Facility ID (as applicable):

Contact/Report To: **Jake Humphrey**
Phone #: **(913)634-0605**
E-Mail: **jake.humphrey@evergy.com**
Cc E-Mail: **skaney@haleyaldrich.com**

Invoice To: **Jeffrey Center**
Invoice E-Mail: **evergyap@onlinecapturecenter.com**
Purchase Order # (if applicable): **WSTR-2000095397**
Quote #:

Time Zone Collected: [ ] AK [ ] PT [ ] MT [X] CT [ ] ET
County / State origin of sample(s): **Kansas**

Data Deliverables:
[ ] Level II [ ] Level III [ ] Level IV
[ ] EQUIS
[ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [X] No

Rush (Pre-approval required):
[ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested:

Field Filtered (if applicable): [ ] Yes [X] No
Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	200.7/200.8/245.1/6010 **see lists	300.0 IC Fluoride
FAA-3-0619 24	WT	Grab	-	-	6/19/24	1035	2	-	-	X	X
FAA-4-0619 24	WT	Grab	-	-	6/19/24	1120	2	-	-	X	X
FAA-5-0619 24	WT	Grab	-	-	6/19/24	1210	2	-	-	X	X
FAA-6-0619 24	WT	Grab	-	-	6/19/24	935	2	-	-	X	X
JEC-FAA-DUP-0619 24	WT	Grab	-	-	6/19/24	935	2	-	-	X	X

Specify Container Size **: 3 3
Identify Container Preservative Type***: 2 1
Analysis Requested

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only
Proj. Mgr: **Alice Spiller**
AcctNum / Client ID:
Table #:
Profile / Template: **9655**
Prelog / Bottle Ord. ID: **EZ 3118421**
Sample Comment

Preservation non-conformance identified for sample.

Additional Instructions from Pace®:
200.8 Sb,As,Cd,Co,Mo,Se,Tl
200.7 Ba, Be, Cr, Pb
6010 Li
245.1 Hg

Collected By: (Printed Name) **Matt VanderPutten**
Signature: *Matt VanderPutten*

Customer Remarks / Special Conditions / Possible Hazards:

Coolers: Thermometer ID: Correction Factor (°C): Obs. Temp. (°C) Corrected Temp. (°C) On Ice:
1.8

Tracking Number:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Matt VanderPutten / SCS	06/19/24 ~~06/20/24~~ / 16:00		6/19 1600
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:		

Delivered by: [ ] In- Person [ ] Courier [ ] FedEX [ ] UPS [ ] Other

Page: 1 of 1

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

ENV-FRM-CORQ-0019_v02_110123 ©

DC#_Title: ENV-FRM-LENE-0001_Sample Container Count
Revision: 3 | Effective Date: 12/22/2021 | Issued by: Lenexa

Client: Evergy Kansas Central, Inc.

Profile/EZ # 3118421

Site: JEC FAL CCR

Notes

OC line em	Matrix	VG9H	DG9H	DG9Q	VG9U	DG9U	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	BP3U	BP1N	BP3N	BP3F	BP3S	BP3C	BP3Z	WPDU	ZPLC	Other		
1	WT																				1		1									
2	WT																				1		1									
3	WT																				1		1									
4	WT																				1		1									
5	WT																															
6																																
7																																
8																																
9																																
10																																
11																																
12																																

tainer Codes

Glass

DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass
		AG5U	100mL unpres amber glass

Plastic

BP1C	1L NAOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn Acetate
BP2C	500mL NAOH plastic
BP2N	500mL HNO3 plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Acetate
BP3C	250mL NaOH plastic
BP3F	250mL HNO3 plastic - field filtered
BP3N	250mL HNO3 plastic
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, Zn Acetate
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic
WPDU	16oz unpresserved plstic

Misc.

I	Wipe/Swab
SP5T	120mL Coliform Na Thiosulfate
ZPLC	Ziploc Bag
AF	Air Filter
C	Air Cassettes
R	Terracore Kit
U	Summa Can

Matrix

WT	Water
SL	Solid
NAL	Non-aqueous Liquid
OL	OIL
WP	Wipe
DW	Drinking Water

Work Order Number: 60455244

60455244

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

July 19, 2024

Jake Humphrey
Evergy, Inc.
818 S Kansas Avenue
Topeka, KS 66612

RE: Project: JEC FAL CCR RADCHEM
Pace Project No.: 60455263

Dear Jake Humphrey:

Enclosed are the analytical results for sample(s) received by the laboratory on June 19, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Greensburg

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

Sincerely,

Alice Spiller

Alice Spiller
alice.spiller@pacelabs.com
(913)599-5665
PM Lab Management

Enclosures

cc: Shelly Gomez, Evergy
Laura Hines, Evergy, Inc.
Shannon Hughes, Evergy
Adam Irvin, Evergy
Samantha Kaney, Haley & Aldrich
Nick Williams, Haley Aldrich

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

CERTIFICATIONS

Project: JEC FAL CCR RADCHEM
Pace Project No.: 60455263

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE SUMMARY

Project: JEC FAL CCR RADCHEM
Pace Project No.: 60455263

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60455263001	**FAA-3-061924**	Water	06/19/24 10:35	06/19/24 16:00
60455263002	**FAA-4-061924**	Water	06/19/24 11:20	06/19/24 16:00
60455263003	**FAA-5-061924**	Water	06/19/24 12:10	06/19/24 16:00
60455263004	**FAA-6-061924**	Water	06/19/24 09:35	06/19/24 16:00
60455263005	**JEC-FAA-DUP-061924**	Water	06/19/24 09:35	06/19/24 16:00

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE ANALYTE COUNT

Project: JEC FAL CCR RADCHEM
Pace Project No.: 60455263

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60455263001	**FAA-3-061924**	EPA 903.1	DMC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
60455263002	**FAA-4-061924**	EPA 903.1	DMC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
60455263003	**FAA-5-061924**	EPA 903.1	DMC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
60455263004	**FAA-6-061924**	EPA 903.1	DMC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
60455263005	**JEC-FAA-DUP-061924**	EPA 903.1	DMC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

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PROJECT NARRATIVE

Project: JEC FAL CCR RADCHEM
Pace Project No.: 60455263

Method: **EPA 903.1**
Description: 903.1 Radium 226
Client: Evergy Kansas Central, Inc.
Date: July 19, 2024

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

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

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Additional Comments:

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PROJECT NARRATIVE

Project: JEC FAL CCR RADCHEM
Pace Project No.: 60455263

Method: **EPA 904.0**
Description: 904.0 Radium 228
Client: Evergy Kansas Central, Inc.
Date: July 19, 2024

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

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

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Additional Comments:

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PROJECT NARRATIVE

Project: JEC FAL CCR RADCHEM
Pace Project No.: 60455263

Method: **Total Radium Calculation**
Description: Total Radium 228+226
Client: Evergy Kansas Central, Inc.
Date: July 19, 2024

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

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

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Additional Comments:

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

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: JEC FAL CCR RADCHEM
Pace Project No.: 60455263

Sample: FAA-3-061924 **Lab ID: 60455263001** Collected: 06/19/24 10:35 Received: 06/19/24 16:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0567 ± 0.369 (0.744) C:NA T:92%**	pCi/L	07/11/24 12:42	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.824 ± 0.435 (0.762) C:74% T:86%**	pCi/L	07/11/24 15:17	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.881 ± 0.804 (1.51)**	pCi/L	07/12/24 16:07	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: JEC FAL CCR RADCHEM
Pace Project No.: 60455263

Sample: FAA-4-061924 **Lab ID: 60455263002** Collected: 06/19/24 11:20 Received: 06/19/24 16:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.219 ± 0.402 (0.717) C:NA T:88%**	pCi/L	07/11/24 12:42	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.461 ± 0.396 (0.789) C:76% T:79%**	pCi/L	07/11/24 15:17	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.680 ± 0.798 (1.51)**	pCi/L	07/12/24 16:07	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: JEC FAL CCR RADCHEM
Pace Project No.: 60455263

Sample: FAA-5-061924 **Lab ID: 60455263003** Collected: 06/19/24 12:10 Received: 06/19/24 16:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.492 ± 0.445 (0.656) C:NA T:88%**	pCi/L	07/11/24 12:42	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**-0.0137 ± 0.366 (0.866) C:68% T:83%**	pCi/L	07/11/24 15:17	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.492 ± 0.811 (1.52)**	pCi/L	07/12/24 16:07	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: JEC FAL CCR RADCHEM
Pace Project No.: 60455263

Sample: FAA-6-061924 **Lab ID: 60455263004** Collected: 06/19/24 09:35 Received: 06/19/24 16:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.389 ± 0.568 (0.968) C:NA T:93%**	pCi/L	07/11/24 12:42	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.565 ± 0.387 (0.739) C:79% T:82%**	pCi/L	07/11/24 15:17	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.954 ± 0.955 (1.71)**	pCi/L	07/12/24 16:07	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: JEC FAL CCR RADCHEM
Pace Project No.: 60455263

Sample: JEC-FAA-DUP-061924 **Lab ID: 60455263005** Collected: 06/19/24 09:35 Received: 06/19/24 16:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.187 ± 0.534 (0.991) C:NA T:82%**	pCi/L	07/11/24 12:42	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.550 ± 0.350 (0.651) C:79% T:90%**	pCi/L	07/11/24 15:17	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.737 ± 0.884 (1.64)**	pCi/L	07/12/24 16:07	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: JEC FAL CCR RADCHEM
Pace Project No.: 60455263

QC Batch: 678399
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 60455263001, 60455263002, 60455263003, 60455263004, 60455263005

METHOD BLANK: 3303058 Matrix: Water
Associated Lab Samples: 60455263001, 60455263002, 60455263003, 60455263004, 60455263005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0395 ± 0.180 (0.425) C:NA T:91%	pCi/L	07/11/24 12:42	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: JEC FAL CCR RADCHEM
Pace Project No.: 60455263

QC Batch: 678401
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 60455263001, 60455263002, 60455263003, 60455263004, 60455263005

METHOD BLANK: 3303059 Matrix: Water
Associated Lab Samples: 60455263001, 60455263002, 60455263003, 60455263004, 60455263005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.312 ± 0.410 (0.871) C:70% T:75%	pCi/L	07/11/24 15:18	

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

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: JEC FAL CCR RADCHEM
Pace Project No.: 60455263

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: JEC FAL CCR RADCHEM
Pace Project No.: 60455263

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60455263001	**FAA-3-061924**	EPA 903.1	678399		
60455263002	**FAA-4-061924**	EPA 903.1	678399		
60455263003	**FAA-5-061924**	EPA 903.1	678399		
60455263004	**FAA-6-061924**	EPA 903.1	678399		
60455263005	**JEC-FAA-DUP-061924**	EPA 903.1	678399		
60455263001	**FAA-3-061924**	EPA 904.0	678401		
60455263002	**FAA-4-061924**	EPA 904.0	678401		
60455263003	**FAA-5-061924**	EPA 904.0	678401		
60455263004	**FAA-6-061924**	EPA 904.0	678401		
60455263005	**JEC-FAA-DUP-061924**	EPA 904.0	678401		
60455263001	**FAA-3-061924**	Total Radium Calculation	682190		
60455263002	**FAA-4-061924**	Total Radium Calculation	682190		
60455263003	**FAA-5-061924**	Total Radium Calculation	682190		
60455263004	**FAA-6-061924**	Total Radium Calculation	682190		
60455263005	**JEC-FAA-DUP-061924**	Total Radium Calculation	682190		

WO# : 60455263

60455263

Pace	DC#_Title: ENV-FRM-LENE-0009_Sample C		
	Revision: 2	Effective Date: 01/12/2022	Issued By: Lenexa

Client Name: Evergy Kansas Central, Inc.

Courier: FedEx ☐ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☒ Other ☐

Tracking #: _____ Pace Shipping Label Used? Yes ☐ No ☑

Custody Seal on Cooler/Box Present: Yes ☐ No ☐ Seals intact: Yes ☐ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☐ None ☒ Other ☐

Thermometer Used: T-299 **Type of Ice:** Wet Blue (None)

Cooler Temperature (°C): **As-read** 11.8 **Corr. Factor** -0.0 **Corrected** 11.8

Date and initials of person examining contents: 6/20/24 KL

Temperature should be above freezing to 6°C

Chain of Custody present:	☒Yes ☐No ☐N/A	
Chain of Custody relinquished:	☐Yes ☒No ☐N/A	
Samples arrived within holding time:	☒Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☐No ☒N/A	
Rush Turn Around Time requested:	☐Yes ☒No ☐N/A	
Sufficient volume:	☒Yes ☐No ☐N/A	
Correct containers used:	☒Yes ☐No ☐N/A	
Pace containers used:	☒Yes ☐No ☐N/A	
Containers intact:	☒Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☒N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☒N/A	
Sample labels match COC: Date / time / ID / analyses	☒Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: WT	☐Yes ☒No ☐N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO) **LOT#:**	☐Yes ☐No ☑N/A	List sample IDs, volumes, lot #'s of preservative and the date/time added.
Cyanide water sample checks: Lead acetate strip turns dark? (Record only)	☐Yes ☒No	
Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No	
Trip Blank present: KL ~~☒Yes~~	☐No ☒N/A	
Headspace in VOA vials (>6mm):	☐Yes ☐No ☒N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☒N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☒N/A	

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

Qualtrax Document ID: 30468

Page 1 of 1

Pace® Location Requested (City/State):
Pace Analytical Kansas
9608 Loiret Blvd., Lenexa, KS 66219

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

60455263

Scan QR Code for instructions

Company Name:	Evergy Kansas Central, Inc.	Contact/Report To:	Jake Humphrey
Street Address:	818 S Kansas Avenue, Topeka, KS 66612	Phone #:	(913)634-0605
		E-Mail:	jake.humphrey@evergy.com
		Cc E-Mail:	skaney@haleyaldrich.com
Customer Project #:			
Project Name:	JEC FAL CCR RADCHEM	Invoice To:	Jeffrey Center
		Invoice E-Mail:	evergyap@onlinecapturecenter.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	WSTR-2000095397
		Quote #:	

Time Zone Collected: [ ] AK [ ] PT [ ] MT [X] CT [ ] ET

County / State origin of sample(s): Kansas

Data Deliverables:
[ ] Level II [ ] Level III [ ] Level IV
[ ] EQUIS
[ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [X] No

Rush (Pre-approval required):
[ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested:

Field Filtered (if applicable): [ ] Yes [X] No
Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	Radium 226	Radium 228, combined, QC Sheets
FAA-3-061924	WT	Grab	-	-	6/19/24	1035	2	-	-	X	X
FAA-4-061924	WT	Grab	-	-	6/19/24	1120	2	-	-	X	X
FAA-5-061924	WT	Grab	-	-	6/19/24	1210	2	-	-	X	X
FAA-6-061924	WT	Grab	-	-	6/19/24	935	2	-	-	X	X
JEC-FAA-DUP-061924	WT	Grab	-	-	6/19/24	935	2	-	-	X	X

Specify Container Size **: 1 1
Identify Container Preservative Type***: 2 2
Analysis Requested

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only
Proj. Mgr: Alice Spiller
AcctNum / Client ID:
Table #:
Profile / Template: 9655
Prelog / Bottle Ord. ID: EZ 3118435
Sample Comment

Preservation non-conformance identified for sample.

Additional Instructions from Pace®:

Collected By: (Printed Name) Matt VanderPutten
Signature: Matt VanderPutten

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
				11.8	

Relinquished by/Company: (Signature) Matt VanderPutten / SCS	Date/Time: 06/19/24 ~~06/20/24~~ /16:00	Received by/Company: (Signature)	Date/Time: 06/19 1600	Tracking Number:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In- Person [ ] Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	[ ] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 1 of 1

Client: Evergy Kansas Central, Inc. Profile/EZ # 3118435

Site: JEC FAL CCR RADCHEM Notes

OC ine em	Matrix	VG9H	DG9H	DG9Q	VG9U	DG9U	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	BP3U	BP1N	BP3N	BP3F	BP3S	BP3C	BP3Z	WPDU	ZPLC	Other	BP1N
1	WT																														2
2	WT																														2
3	WT																														2
4	WT																														2
5	WT																														2
6																															2
7																															
8																															
9																															
10																															
11																															
12																															

tainer Codes

Glass			
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass
		AG5U	100mL unpres amber glass

Plastic	
BP1C	1L NAOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn Acetate
BP2C	500mL NAOH plastic
BP2N	500mL HNO3 plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Acetate
BP3C	250mL NaOH plastic
BP3F	250mL HNO3 plastic - field filtered
BP3N	250mL HNO3 plastic
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, Zn Acetate
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic
WPDU	16oz unpresserved plstic

Misc.	
I	Wipe/Swab
SP5T	120mL Coliform Na Thiosulfate
ZPLC	Ziploc Bag
AF	Air Filter
C	Air Cassettes
R	Terracore Kit
U	Summa Can

Matrix	
WT	Water
SL	Solid
NAL	Non-aqueous Liquid
OL	OIL
WP	Wipe
DW	Drinking Water

Work Order Number: 60455263

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test:	Ra-226
Analyst:	DMC
Date:	6/27/2024
Batch ID:	79985
Matrix:	DW

Method Blank Assessment	
MB Sample ID	3303058
MB concentration:	-0.039
M/B Counting Uncertainty:	0.173
MB MDC:	0.425
MB Numerical Performance Indicator:	-0.45
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS79985	**LCSD79985**
Count Date:	7/11/2024	7/11/2024
Spike I.D.:	23-063	23-063
Spike Concentration (pCi/mL):	32.298	32.298
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.655	0.654
Target Conc. (pCi/L, g, F):	4.935	4.939
Uncertainty (Calculated):	0.232	0.232
Result (pCi/L, g, F):	5.412	4.745
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	1.053	0.958
Numerical Performance Indicator:	0.87	-0.39
Percent Recovery:	109.67%	96.05%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	133%	133%
Lower % Recovery Limits:	73%	73%

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:		
Sample I.D.		
Sample MS I.D.		
Sample MSD I.D.		
Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		
Spike Volume Used in MS (mL):		
Spike Volume Used in MSD (mL):		
MS Aliquot (L, g, F):		
MS Target Conc.(pCi/L, g, F):		
MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):		
MS Spike Uncertainty (calculated):		
MSD Spike Uncertainty (calculated):		
Sample Result:		
Sample Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Result:		
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):		
MS Numerical Performance Indicator:		
MSD Numerical Performance Indicator:		
MS Percent Recovery:		
MSD Percent Recovery:		
MS Status vs Numerical Indicator:		
MSD Status vs Numerical Indicator:		
MS Status vs Recovery:		
MSD Status vs Recovery:		
MS/MSD Upper % Recovery Limits:		
MS/MSD Lower % Recovery Limits:		

Duplicate Sample Assessment		
Sample I.D.:	LCS79985	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD79985	
Sample Result (pCi/L, g, F):	5.412	
Sample Result Counting Uncertainty (pCi/L, g, F):	1.053	
Sample Duplicate Result (pCi/L, g, F):	4.745	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.958	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	0.919	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	13.24%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	32%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment		
Sample I.D.		
Sample MS I.D.		
Sample MSD I.D.		
Sample Matrix Spike Result:		
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):		
Duplicate Numerical Performance Indicator:		
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:		
MS/ MSD Duplicate Status vs Numerical Indicator:		
MS/ MSD Duplicate Status vs RPD:		
% RPD Limit:		

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the RL.

Comments:

CLM LL 07 11 24
7/11/24

Quality Control Sample Performance Assessment

Pace Analytical™
www.pacelabs.com

Test:	Ra-228
Analyst:	VAL
Date:	7/4/2024
Worklist:	79986
Matrix:	WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	3303059
MB concentration:	0.312
M/B 2 Sigma CSU:	0.410
MB MDC:	0.871
MB Numerical Performance Indicator:	1.49
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS79986	LCSD79986
Count Date:	7/11/2024	7/11/2024
Spike I.D.:	23-043	23-043
Decay Corrected Spike Concentration (pCi/mL):	36.060	36.060
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.818	0.820
Target Conc. (pCi/L, g, F):	4.406	4.400
Uncertainty (Calculated):	0.216	0.216
Result (pCi/L, g, F):	3.733	3.171
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.918	0.828
Numerical Performance Indicator:	-1.40	-2.81
Percent Recovery:	84.72%	72.07%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	135%	135%
Lower % Recovery Limits:	60%	60%

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:		
Sample I.D.		
Sample MS I.D.		
Sample MSD I.D.		
Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		
Spike Volume Used in MS (mL):		
Spike Volume Used in MSD (mL):		
MS Aliquot (L, g, F):		
MS Target Conc.(pCi/L, g, F):		
MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):		
MS Spike Uncertainty (calculated):		
MSD Spike Uncertainty (calculated):		
Sample Result:		
Sample Result 2 Sigma CSU (pCi/L, g, F):		
Sample Matrix Spike Result:		
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):		
MS Numerical Performance Indicator:		
MSD Numerical Performance Indicator:		
MS Percent Recovery:		
MSD Percent Recovery:		
MS Status vs Numerical Indicator:		
MSD Status vs Numerical Indicator:		
MS Status vs Recovery:		
MSD Status vs Recovery:		
MS/MSD Upper % Recovery Limits:		
MS/MSD Lower % Recovery Limits:		

Duplicate Sample Assessment		
Sample I.D.:	LCS79986	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD79986	
Sample Result (pCi/L, g, F):	3.733	
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.918	
Sample Duplicate Result (pCi/L, g, F):	3.171	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.828	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	0.891	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	16.14%	
Duplicate Status vs Numerical Indicator:	Pass	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	36%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment		
Sample I.D.		
Sample MS I.D.		
Sample MSD I.D.		
Sample Matrix Spike Result:		
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):		
Duplicate Numerical Performance Indicator:		
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:		
MS/ MSD Duplicate Status vs Numerical Indicator:		
MS/ MSD Duplicate Status vs RPD:		
% RPD Limit:		

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

MRH
7-12-24

ATTACHMENT 2-3
September 2024 Semiannual Sampling Event
Laboratory Analytical Report

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

September 20, 2024

Jake Humphrey
Evergy, Inc.
818 S Kansas Avenue
Topeka, KS 66612

RE: Project: JEC FAL CCR
Pace Project No.: 60459912

Dear Jake Humphrey:

Enclosed are the analytical results for sample(s) received by the laboratory on September 05, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Kansas City
- Pace Analytical Services - Salina

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

Sincerely,

Alice Spiller

Alice Spiller
alice.spiller@pacelabs.com
(913)599-5665
PM Lab Management

Enclosures

cc: Samantha Kaney, Haley & Aldrich
Nick Williams, Haley Aldrich

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

CERTIFICATIONS

Project: JEC FAL CCR
Pace Project No.: 60459912

Pace Analytical Services Kansas
9608 Loiret Boulevard, Lenexa, KS 66219
Arkansas Certification #: 88-00679
Colorado Division of Oil and Public Safety
Illinois Certification #: 2000302023-6
Iowa Certification #: 118
Kansas Field Laboratory Certification #: E-92587
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Missouri Inorganic Drinking Water Certification
Nevada Certification #: KS000212024-1
Oklahoma Certification #: 2023-073
Texas Certification #: T104704407-23-17
Utah Certification #: KS000212022-13

Pace Analytical Services Salina
528 N 9th Street, Salina, KS 67401
Kansas/NELAP Certification: # E-10146
Oklahoma Certification: 2023-074
Texas Certification: T104704246-23-15

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE SUMMARY

Project: JEC FAL CCR
Pace Project No.: 60459912

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60459912001	**FAA-3-090424**	Water	09/04/24 14:40	09/05/24 12:50
60459912002	**FAA-4-090424**	Water	09/04/24 15:10	09/05/24 12:50
60459912003	**FAA-6-090424**	Water	09/04/24 15:45	09/05/24 12:50
60459912004	**JEC-FAA-DUP-090424**	Water	09/04/24 15:45	09/05/24 12:50

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SAMPLE ANALYTE COUNT

Project: JEC FAL CCR
Pace Project No.: 60459912

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60459912001	**FAA-3-090424**	EPA 200.7	ARMN	3	PASI-K
		EPA 6010	ARMN	1	PASI-K
		EPA 200.8	JGP	3	PASI-K
		EPA 245.1	MLD	1	PASI-K
		EPA 300.0	MLL	3	PASI-SA
		SM 2540C	TML	1	PASI-K
		SM 4500-H+B	TML	1	PASI-K
60459912002	**FAA-4-090424**	EPA 200.7	ARMN	3	PASI-K
		EPA 6010	ARMN	1	PASI-K
		EPA 200.8	JGP	3	PASI-K
		EPA 245.1	MLD	1	PASI-K
		EPA 300.0	MLL	3	PASI-SA
		SM 2540C	TML	1	PASI-K
		SM 4500-H+B	TML	1	PASI-K
60459912003	**FAA-6-090424**	EPA 200.7	ARMN	3	PASI-K
		EPA 6010	ARMN	1	PASI-K
		EPA 200.8	JGP	3	PASI-K
		EPA 245.1	MLD	1	PASI-K
		EPA 300.0	MLL	3	PASI-SA
		SM 2540C	TML	1	PASI-K
		SM 4500-H+B	TML	1	PASI-K
60459912004	**JEC-FAA-DUP-090424**	EPA 200.7	ARMN	3	PASI-K
		EPA 6010	ARMN	1	PASI-K
		EPA 200.8	JGP	3	PASI-K
		EPA 245.1	MLD	1	PASI-K
		EPA 300.0	MLL	3	PASI-SA
		SM 2540C	TML	1	PASI-K
		SM 4500-H+B	TML	1	PASI-K

PASI-K = Pace Analytical Services - Kansas City
PASI-SA = Pace Analytical Services - Salina

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: JEC FAL CCR
Pace Project No.: 60459912

Method: **EPA 200.7**
Description: 200.7 Metals, Total
Client: Evergy_Haley & Aldrich
Date: September 20, 2024

General Information:
4 samples were analyzed for EPA 200.7 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 200.7 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Additional Comments:

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: JEC FAL CCR
Pace Project No.: 60459912

Method: **EPA 6010**
Description: 6010 MET ICP
Client: Evergy_Haley & Aldrich
Date: September 20, 2024

General Information:
4 samples were analyzed for EPA 6010 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Additional Comments:

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: JEC FAL CCR
Pace Project No.: 60459912

Method: **EPA 200.8**
Description: 200.8 MET ICPMS
Client: Evergy_Haley & Aldrich
Date: September 20, 2024

General Information:
4 samples were analyzed for EPA 200.8 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 200.8 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Additional Comments:

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Lenexa, KS 66219
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PROJECT NARRATIVE

Project: JEC FAL CCR
Pace Project No.: 60459912

Method: **EPA 245.1**
Description: 245.1 Mercury
Client: Evergy_Haley & Aldrich
Date: September 20, 2024

General Information:
4 samples were analyzed for EPA 245.1 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 245.1 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Additional Comments:

Pace Analytical Services, LLC
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(913)599-5665

PROJECT NARRATIVE

Project: JEC FAL CCR
Pace Project No.: 60459912

Method: **EPA 300.0**
Description: 300.0 IC Anions 28 Days
Client: Evergy_Haley & Aldrich
Date: September 20, 2024

General Information:
4 samples were analyzed for EPA 300.0 by Pace Analytical Services Salina. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Additional Comments:

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: JEC FAL CCR
Pace Project No.: 60459912

Method: **SM 2540C**
Description: 2540C Total Dissolved Solids
Client: Evergy_Haley & Aldrich
Date: September 20, 2024

General Information:
4 samples were analyzed for SM 2540C by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: JEC FAL CCR
Pace Project No.: 60459912

Method: **SM 4500-H+B**
Description: 4500H+ pH, Electrometric
Client: Evergy_Haley & Aldrich
Date: September 20, 2024

General Information:
4 samples were analyzed for SM 4500-H+B by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

H6: Analysis initiated outside of the 15 minute EPA required holding time.
- FAA-3-090424 (Lab ID: 60459912001)
- FAA-4-090424 (Lab ID: 60459912002)
- FAA-6-090424 (Lab ID: 60459912003)
- JEC-FAA-DUP-090424 (Lab ID: 60459912004)

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: JEC FAL CCR
Pace Project No.: 60459912

Sample: FAA-3-090424 **Lab ID: 60459912001** Collected: 09/04/24 14:40 Received: 09/05/24 12:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City							
Barium, Total Recoverable	**0.028**	mg/L	0.0050	1	09/06/24 14:17	09/11/24 12:03	7440-39-3	
Boron, Total Recoverable	**0.52**	mg/L	0.10	1	09/06/24 14:17	09/11/24 12:03	7440-42-8	
Calcium, Total Recoverable	**320**	mg/L	0.20	1	09/06/24 14:17	09/11/24 12:03	7440-70-2	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Kansas City							
Lithium, Total Recoverable	**0.015**	mg/L	0.010	1	09/06/24 09:58	09/10/24 11:49	7439-93-2	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City							
Arsenic, Total Recoverable	**0.0011**	mg/L	0.0010	1	09/13/24 10:04	09/17/24 15:29	7440-38-2	
Cobalt, Total Recoverable	**<0.0010**	mg/L	0.0010	1	09/13/24 10:04	09/17/24 15:29	7440-48-4	
Molybdenum, Total Recoverable	**0.0042**	mg/L	0.0010	1	09/13/24 10:04	09/17/24 15:29	7439-98-7	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Kansas City							
Mercury	**<0.20**	ug/L	0.20	1	09/06/24 09:55	09/06/24 14:53	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Salina							
Chloride	**175**	mg/L	20.0	20		09/11/24 18:05	16887-00-6	
Fluoride	**0.30**	mg/L	0.10	1		09/11/24 08:40	16984-48-8	
Sulfate	**880**	mg/L	100	100		09/11/24 18:49	14808-79-8	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City							
Total Dissolved Solids	**1640**	mg/L	66.7	1		09/06/24 10:15		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Kansas City							
pH at 25 Degrees C	**7.1**	Std. Units	0.10	1		09/10/24 17:36		H6

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: JEC FAL CCR
Pace Project No.: 60459912

Sample: FAA-4-090424 **Lab ID: 60459912002** Collected: 09/04/24 15:10 Received: 09/05/24 12:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City							
Barium, Total Recoverable	**0.049**	mg/L	0.0050	1	09/06/24 14:17	09/11/24 12:05	7440-39-3	
Boron, Total Recoverable	**0.51**	mg/L	0.10	1	09/06/24 14:17	09/11/24 12:05	7440-42-8	
Calcium, Total Recoverable	**189**	mg/L	0.20	1	09/06/24 14:17	09/11/24 12:05	7440-70-2	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Kansas City							
Lithium, Total Recoverable	**0.023**	mg/L	0.010	1	09/12/24 12:00	09/18/24 13:07	7439-93-2	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City							
Arsenic, Total Recoverable	**<0.0010**	mg/L	0.0010	1	09/13/24 10:04	09/17/24 15:45	7440-38-2	
Cobalt, Total Recoverable	**<0.0010**	mg/L	0.0010	1	09/13/24 10:04	09/17/24 15:45	7440-48-4	
Molybdenum, Total Recoverable	**0.0060**	mg/L	0.0010	1	09/13/24 10:04	09/17/24 15:45	7439-98-7	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Kansas City							
Mercury	**1.5**	ug/L	0.20	1	09/06/24 09:55	09/06/24 15:00	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Salina							
Chloride	**126**	mg/L	10.0	10		09/11/24 19:33	16887-00-6	
Fluoride	**0.26**	mg/L	0.10	1		09/11/24 09:24	16984-48-8	
Sulfate	**460**	mg/L	50.0	50		09/11/24 20:17	14808-79-8	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City							
Total Dissolved Solids	**1200**	mg/L	20.0	1		09/06/24 10:15		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Kansas City							
pH at 25 Degrees C	**7.2**	Std. Units	0.10	1		09/10/24 17:37		H6

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: JEC FAL CCR
Pace Project No.: 60459912

Sample: FAA-6-090424 **Lab ID: 60459912003** Collected: 09/04/24 15:45 Received: 09/05/24 12:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City							
Barium, Total Recoverable	**0.021**	mg/L	0.0050	1	09/06/24 14:17	09/11/24 12:08	7440-39-3	
Boron, Total Recoverable	**3.8**	mg/L	0.10	1	09/06/24 14:17	09/11/24 12:08	7440-42-8	
Calcium, Total Recoverable	**94.5**	mg/L	0.20	1	09/06/24 14:17	09/11/24 12:08	7440-70-2	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Kansas City							
Lithium, Total Recoverable	**<0.010**	mg/L	0.010	1	09/06/24 09:58	09/10/24 11:51	7439-93-2	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City							
Arsenic, Total Recoverable	**0.011**	mg/L	0.0010	1	09/13/24 10:04	09/17/24 15:49	7440-38-2	
Cobalt, Total Recoverable	**<0.0010**	mg/L	0.0010	1	09/13/24 10:04	09/17/24 15:49	7440-48-4	
Molybdenum, Total Recoverable	**0.60**	mg/L	0.0010	1	09/13/24 10:04	09/17/24 15:49	7439-98-7	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Kansas City							
Mercury	**<0.20**	ug/L	0.20	1	09/06/24 09:55	09/06/24 15:07	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Salina							
Chloride	**61.5**	mg/L	5.0	5		09/11/24 20:32	16887-00-6	
Fluoride	**1.0**	mg/L	0.10	1		09/11/24 09:39	16984-48-8	
Sulfate	**1520**	mg/L	200	200		09/11/24 20:46	14808-79-8	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City							
Total Dissolved Solids	**2450**	mg/L	100	1		09/06/24 10:16		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Kansas City							
pH at 25 Degrees C	**8.5**	Std. Units	0.10	1		09/10/24 17:42		H6

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: JEC FAL CCR
Pace Project No.: 60459912

Sample: JEC-FAA-DUP-090424 **Lab ID: 60459912004** Collected: 09/04/24 15:45 Received: 09/05/24 12:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City							
Barium, Total Recoverable	**0.022**	mg/L	0.0050	1	09/06/24 14:17	09/11/24 12:10	7440-39-3	
Boron, Total Recoverable	**4.0**	mg/L	0.10	1	09/06/24 14:17	09/11/24 12:10	7440-42-8	
Calcium, Total Recoverable	**97.8**	mg/L	0.20	1	09/06/24 14:17	09/11/24 12:10	7440-70-2	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Kansas City							
Lithium, Total Recoverable	**<0.010**	mg/L	0.010	1	09/06/24 09:58	09/10/24 11:53	7439-93-2	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City							
Arsenic, Total Recoverable	**0.011**	mg/L	0.0010	1	09/13/24 10:04	09/17/24 15:53	7440-38-2	
Cobalt, Total Recoverable	**<0.0010**	mg/L	0.0010	1	09/13/24 10:04	09/17/24 15:53	7440-48-4	
Molybdenum, Total Recoverable	**0.61**	mg/L	0.0010	1	09/13/24 10:04	09/17/24 15:53	7439-98-7	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Kansas City							
Mercury	**<0.20**	ug/L	0.20	1	09/06/24 09:55	09/06/24 15:09	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Salina							
Chloride	**61.2**	mg/L	5.0	5		09/11/24 21:01	16887-00-6	
Fluoride	**1.0**	mg/L	0.10	1		09/11/24 09:54	16984-48-8	
Sulfate	**1590**	mg/L	200	200		09/11/24 21:15	14808-79-8	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City							
Total Dissolved Solids	**2430**	mg/L	100	1		09/06/24 10:16		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Kansas City							
pH at 25 Degrees C	**8.2**	Std. Units	0.10	1		09/13/24 10:55		H6

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: JEC FAL CCR
Pace Project No.: 60459912

QC Batch: 907629
QC Batch Method: EPA 245.1
Analysis Method: EPA 245.1
Analysis Description: 245.1 Mercury
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60459912001, 60459912002, 60459912003, 60459912004

METHOD BLANK: 3592233 Matrix: Water
Associated Lab Samples: 60459912001, 60459912002, 60459912003, 60459912004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	<0.20	0.20	09/06/24 14:16	

LABORATORY CONTROL SAMPLE: 3592234

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.7	95	85-115	

MATRIX SPIKE SAMPLE: 3592235

Parameter	Units	60459802001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	ND	5	4.9	98	70-130	

MATRIX SPIKE SAMPLE: 3592236

Parameter	Units	60459912001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	<0.20	5	4.2	84	70-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: JEC FAL CCR
Pace Project No.: 60459912

QC Batch: 907701
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 Metals, Total
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60459912001, 60459912002, 60459912003, 60459912004

METHOD BLANK: 3592646 Matrix: Water
Associated Lab Samples: 60459912001, 60459912002, 60459912003, 60459912004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Barium	mg/L	<0.0050	0.0050	09/11/24 11:41	
Boron	mg/L	<0.10	0.10	09/11/24 11:41	
Calcium	mg/L	<0.20	0.20	09/11/24 11:41	

LABORATORY CONTROL SAMPLE: 3592647

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium	mg/L	1	1.0	101	85-115	
Boron	mg/L	1	0.94	94	85-115	
Calcium	mg/L	10	10.8	108	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3592648 3592649

Parameter	Units	60460004001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	8.8 ug/L	1	1	0.96	0.95	95	94	70-130	2	20	
Boron	mg/L	448 ug/L	1	1	1.4	1.4	94	93	70-130	1	20	
Calcium	mg/L	12700 ug/L	10	10	22.8	22.8	101	102	70-130	0	20	

MATRIX SPIKE SAMPLE: 3592650

Parameter	Units	60459912002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Barium	mg/L	0.049	1	1.0	96	70-130	
Boron	mg/L	0.51	1	1.5	95	70-130	
Calcium	mg/L	189	10	199	106	70-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: JEC FAL CCR
Pace Project No.: 60459912

QC Batch: 907859
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60459912001, 60459912002, 60459912003, 60459912004

METHOD BLANK: 3593203 Matrix: Water
Associated Lab Samples: 60459912001, 60459912002, 60459912003, 60459912004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	<0.0010	0.0010	09/17/24 15:24	
Cobalt	mg/L	<0.0010	0.0010	09/17/24 15:24	
Molybdenum	mg/L	<0.0010	0.0010	09/17/24 15:24	

LABORATORY CONTROL SAMPLE: 3593204

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.04	0.039	97	85-115	
Cobalt	mg/L	0.04	0.039	98	85-115	
Molybdenum	mg/L	0.04	0.039	96	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3593205 3593206

Parameter	Units	60459912001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	0.0011	0.04	0.04	0.040	0.042	97	101	70-130	4	20	
Cobalt	mg/L	<0.0010	0.04	0.04	0.040	0.043	99	104	70-130	5	20	
Molybdenum	mg/L	0.0042	0.04	0.04	0.045	0.047	103	107	70-130	4	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: JEC FAL CCR
Pace Project No.: 60459912

QC Batch: 907611
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60459912001, 60459912003, 60459912004

METHOD BLANK: 3592168 Matrix: Water
Associated Lab Samples: 60459912001, 60459912003, 60459912004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lithium	mg/L	<0.010	0.010	09/10/24 11:41	

LABORATORY CONTROL SAMPLE: 3592169

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lithium	mg/L	1	1.2	118	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3592170 3592171

Parameter	Units	60459912001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lithium	mg/L	0.015	1	1	1.2	1.2	118	119	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: JEC FAL CCR
Pace Project No.: 60459912

QC Batch: 908340
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60459912002

METHOD BLANK: 3594819 Matrix: Water
Associated Lab Samples: 60459912002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lithium	mg/L	<0.010	0.010	09/18/24 13:04	

LABORATORY CONTROL SAMPLE: 3594820

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lithium	mg/L	1	0.99	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3594821 3594822

Parameter	Units	60459912002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lithium	mg/L	0.023	1	1	1.0	1.0	102	99	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: JEC FAL CCR
Pace Project No.: 60459912

QC Batch: 907950
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Salina
Associated Lab Samples: 60459912001, 60459912002, 60459912003, 60459912004

METHOD BLANK: 3593427 Matrix: Water
Associated Lab Samples: 60459912001, 60459912002, 60459912003, 60459912004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<1.0	1.0	09/11/24 08:11	
Fluoride	mg/L	<0.10	0.10	09/11/24 08:11	
Sulfate	mg/L	<1.0	1.0	09/11/24 08:11	

LABORATORY CONTROL SAMPLE: 3593428

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5	4.9	98	90-110	
Fluoride	mg/L	2.5	2.6	102	90-110	
Sulfate	mg/L	5	5.1	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3593429 3593430

Parameter	Units	60459912001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	175	100	100	282	281	107	106	80-120	0	15	
Fluoride	mg/L	0.30	2.5	2.5	2.7	2.7	96	96	80-120	0	15	
Sulfate	mg/L	880	500	500	1360	1380	97	99	80-120	1	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3593431 3593432

Parameter	Units	60459957004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	66.0	50	50	119	120	106	108	80-120	1	15	
Fluoride	mg/L	0.33	2.5	2.5	2.7	2.7	95	95	80-120	0	15	
Sulfate	mg/L	592	500	500	1110	1100	104	102	80-120	1	15	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: JEC FAL CCR
Pace Project No.: 60459912

QC Batch: 907636 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60459912001, 60459912002, 60459912003, 60459912004

METHOD BLANK: 3592254 Matrix: Water
Associated Lab Samples: 60459912001, 60459912002, 60459912003, 60459912004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<5.0	5.0	09/06/24 10:14	

LABORATORY CONTROL SAMPLE: 3592255

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	1000	981	98	80-120	

SAMPLE DUPLICATE: 3592256

Parameter	Units	60459722004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	844	888	5	10	

SAMPLE DUPLICATE: 3592257

Parameter	Units	60459922004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	624	633	1	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: JEC FAL CCR
Pace Project No.: 60459912

QC Batch: 907980
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60459912001, 60459912002, 60459912003

SAMPLE DUPLICATE: 3593536

Parameter	Units	60459928003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.8	6.8	1	5	H6

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: JEC FAL CCR
Pace Project No.: 60459912

QC Batch: 908325
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60459912004

SAMPLE DUPLICATE: 3594765

Parameter	Units	60459912004 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.2	8.5	4	5	H6

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: JEC FAL CCR
Pace Project No.: 60459912

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

H6 Analysis initiated outside of the 15 minute EPA required holding time.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: JEC FAL CCR
Pace Project No.: 60459912

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60459912001	**FAA-3-090424**	EPA 200.7	907701	EPA 200.7	907728
60459912002	**FAA-4-090424**	EPA 200.7	907701	EPA 200.7	907728
60459912003	**FAA-6-090424**	EPA 200.7	907701	EPA 200.7	907728
60459912004	**JEC-FAA-DUP-090424**	EPA 200.7	907701	EPA 200.7	907728
60459912001	**FAA-3-090424**	EPA 3010	907611	EPA 6010	907670
60459912002	**FAA-4-090424**	EPA 3010	908340	EPA 6010	908395
60459912003	**FAA-6-090424**	EPA 3010	907611	EPA 6010	907670
60459912004	**JEC-FAA-DUP-090424**	EPA 3010	907611	EPA 6010	907670
60459912001	**FAA-3-090424**	EPA 200.8	907859	EPA 200.8	908491
60459912002	**FAA-4-090424**	EPA 200.8	907859	EPA 200.8	908491
60459912003	**FAA-6-090424**	EPA 200.8	907859	EPA 200.8	908491
60459912004	**JEC-FAA-DUP-090424**	EPA 200.8	907859	EPA 200.8	908491
60459912001	**FAA-3-090424**	EPA 245.1	907629	EPA 245.1	907660
60459912002	**FAA-4-090424**	EPA 245.1	907629	EPA 245.1	907660
60459912003	**FAA-6-090424**	EPA 245.1	907629	EPA 245.1	907660
60459912004	**JEC-FAA-DUP-090424**	EPA 245.1	907629	EPA 245.1	907660
60459912001	**FAA-3-090424**	EPA 300.0	907950		
60459912002	**FAA-4-090424**	EPA 300.0	907950		
60459912003	**FAA-6-090424**	EPA 300.0	907950		
60459912004	**JEC-FAA-DUP-090424**	EPA 300.0	907950		
60459912001	**FAA-3-090424**	SM 2540C	907636		
60459912002	**FAA-4-090424**	SM 2540C	907636		
60459912003	**FAA-6-090424**	SM 2540C	907636		
60459912004	**JEC-FAA-DUP-090424**	SM 2540C	907636		
60459912001	**FAA-3-090424**	SM 4500-H+B	907980		
60459912002	**FAA-4-090424**	SM 4500-H+B	907980		
60459912003	**FAA-6-090424**	SM 4500-H+B	907980		
60459912004	**JEC-FAA-DUP-090424**	SM 4500-H+B	908325		

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-LENE-0009_Sam		
	Revision: 2	Effective Date: 01/12/2022	Issued By: Lenexa

WO# : 60459912

60459912

Client Name: Everyw KS

Courier: FedEx ☐ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☑ Other ☐

Tracking #: _____ Pace Shipping Label Used? Yes ☐ No ☐

Custody Seal on Cooler/Box Present: Yes ☑ No ☐ Seals intact: Yes ☑ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☐ None ☐ Other ☑

Thermometer Used: _____ **Type of Ice:** Wet Blue None

Cooler Temperature (°C): **As-read** 3.7 **Corr. Factor** .1 **Corrected** 3.6

Date and initials of person examining contents:

Temperature should be above freezing to 6°C

Chain of Custody present:	☑Yes ☐No ☐N/A	
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	
Samples arrived within holding time:	☑Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☑No ☐N/A	
Rush Turn Around Time requested:	☐Yes ☑No ☐N/A	
Sufficient volume:	☑Yes ☐No ☐N/A	
Correct containers used:	☑Yes ☐No ☐N/A	
Pace containers used:	☑Yes ☐No ☐N/A	
Containers intact:	☑Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☑No ☐N/A	
Filtered volume received for dissolved tests?	☐Yes ☑No ☐N/A	
Sample labels match COC: Date / time / ID / analyses	☑Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: W	☐Yes ☑No ☐N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO) **LOT#:** 88721	☑Yes ☐No ☐N/A	List sample IDs, volumes, lot #'s of preservative and the date/time added.
Cyanide water sample checks: Lead acetate strip turns dark? (Record only)	☐Yes ☐No	
Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No	
Trip Blank present:	☐Yes ☐No ☑N/A	
Headspace in VOA vials (>6mm):	☐Yes ☐No ☑N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☑N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☑N/A	

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

Pace® Location Requested (City/State):
Pace Analytical Kansas
9608 Loiret Blvd., Lenexa, KS 66219

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

Scan QR Code for instructions

Company Name:	Evergy Kansas Central, Inc.	Contact/Report To:	Jake Humphrey
Street Address:	818 S Kansas Avenue, Topeka, KS 66612	Phone #:	(913)634-0605
		E-Mail:	jake.humphrey@evergy.com
		Cc E-Mail:	skaney@haleyaldrich.com
Customer Project #:			
Project Name:	JEC FAL CCR	Invoice To:	Jeffrey Center
		Invoice E-Mail:	evergyap@onlinecapturecenter.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	WSTR-2000095397
		Quote #:	

Time Zone Collected: [ ] AK [ ] PT [ ] MT [X] CT [ ] ET

County / State origin of sample(s): Kansas

Data Deliverables:
[ ] Level II [ ] Level III [ ] Level IV
[ ] EQUIS
[ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [X] No

Rush (Pre-approval required):
[ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested:

Field Filtered (if applicable): [ ] Yes [X] No
Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	200.7/200.8/ 245.1/6010	2540C Total Dissolved Solids	300.0 IC Cl,F,SO4	4500H+ pH, Electrometric	Sample Comment	Preservation non-conformance identified for sample.
Specify Container Size **										3	2	3	3		
Identify Container Preservative Type***										2	1	1	1		
Analysis Requested															
FAA-3-090424	WT	Grab	-	-	9/4/20224	1440	4	-	-	X	X	X	X		
FAA-4-090424	WT	Grab	-	-	9/4/2024	1510	4	-	-	X	X	X	X		
FAA-6-090424	WT	Grab	-	-	9/4/20224	1545	4	-	-	X	X	X	X		
JEC-FAA-DUP-090424	WT	Grab	-	-	9/4/2024	1545	4	-	-	X	X	X	X		

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only

Proj. Mgr: Alice Spiller
AcctNum / Client ID:
Table #:
Profile / Template: 16500
Prelog / Bottle Ord. ID: EZ 3150832

Additional Instructions from Pace®:
Metals: B, Ca, As, Ba, Co, Hg, Li, Mo

Collected By:
(Printed Name): Jason R. Franks
Signature: Jason R. Franks

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
				3.6	

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
Jason R. Franks / SCS	09/05/2024 / 1230		9/5 1290	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In- Person [ ] Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	[ ] FedEx [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 1 of 1

Client: Evergy Kansas Central Inc Profile/EZ # 3190832

Site: JEC FAL CCR

Notes

COC Line Item	Matrix	VG9H	DG9H	DG9Q	VG9U	DG9U	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	BP3U	BP1N	BP3N	BP3F	BP3S	BP3B	BP3Z	WPDU	ZPLC	Other		
1	WT																			1	2	1										
2																				1	2	1										
3																				1	2	1										
4																				1	2	1										
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass			
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass
		AG5U	100mL unpres amber glass

Plastic	
BP1B	1L NAOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn Acetate
BP2B	500mL NAOH plastic
BP2N	500mL HNO3 plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Acetate
BP3B	250mL NaOH plastic
BP3F	250mL HNO3 plastic - field filtered
BP3N	250mL HNO3 plastic
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, Zn Acetate
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic
WPDU	16oz unpresserved plstic

Misc.	
I	Wipe/Swab
SP5T	120mL Coliform Na Thiosulfate
ZPLC	Ziploc Bag
AF	Air Filter
C	Air Cassettes
R	Terracore Kit
U	Summa Can

Matrix	
WT	Water
SL	Solid
NAL	Non-aqueous Liquid
OL	OIL
WP	Wipe
DW	Drinking Water

Work Order Number: 60459912

Intra-Regional Chain of Custody

Pace Analytical®
www.pacelabs.com

Workorder: 60459912 **Workorder Name:** JEC FAL CCR **Owner Received Date:** 9/5/2024 **Due Date:** 9/19/2024

Received at:	Send To Lab:
Pace Analytical Kansas 9608 Loiret Blvd. Lenexa, KS 66219 Phone (913)599-5665	Pace Analytical Salina 528 N. 9th Street Salina, KS 67401 Phone (785)827-1273

Report To:
Alice Spiller

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved	EPA 300.0	LAB USE ONLY
1	FAA-3-090424	PS	9/4/2024 14:40	60459912001	Water	1	X	
2	FAA-4-090424	PS	9/4/2024 15:10	60459912002	Water	1	X	
3	FAA-6-090424	PS	9/4/2024 15:45	60459912003	Water	1	X	
4	JEC-FAA-DUP-090424	PS	9/4/2024 15:45	60459912004	Water	1	X	
5								

Transfers	Released By	Date/Time	Received By	Date/Time
1				
2				
3				
4				

Comments

300.0 Cl,F,SO4

KS sample location: 6090-R2-S3B

Cooler Temperature on Receipt 1.4 °C **Custody Seal** (Y) or N **Received on Ice** (Y) or N **Samples Intact** (Y) or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.*

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

September 20, 2024

Jake Humphrey
Evergy, Inc.
818 S Kansas Avenue
Topeka, KS 66612

RE: Project: MW-FAA-5
Pace Project No.: 60459930

Dear Jake Humphrey:

Enclosed are the analytical results for sample(s) received by the laboratory on September 05, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Kansas City
- Pace Analytical Services - Salina

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

Sincerely,

Alice Spiller

Alice Spiller
alice.spiller@pacelabs.com
(913)599-5665
PM Lab Management

Enclosures

cc: Samantha Kaney, Haley & Aldrich
Nick Williams, Haley Aldrich

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

CERTIFICATIONS

Project: MW-FAA-5
Pace Project No.: 60459930

Pace Analytical Services Kansas
9608 Loiret Boulevard, Lenexa, KS 66219
Arkansas Certification #: 88-00679
Colorado Division of Oil and Public Safety
Illinois Certification #: 2000302023-6
Iowa Certification #: 118
Kansas Field Laboratory Certification #: E-92587
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Missouri Inorganic Drinking Water Certification
Nevada Certification #: KS000212024-1
Oklahoma Certification #: 2023-073
Texas Certification #: T104704407-23-17
Utah Certification #: KS000212022-13

Pace Analytical Services Salina
528 N 9th Street, Salina, KS 67401
Kansas/NELAP Certification: # E-10146
Oklahoma Certification: 2023-074
Texas Certification: T104704246-23-15

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE SUMMARY

Project: MW-FAA-5
Pace Project No.: 60459930

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60459930001	**FAA-5-090424**	Water	09/04/24 13:05	09/05/24 12:50

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE ANALYTE COUNT

Project: MW-FAA-5
Pace Project No.: 60459930

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60459930001	**FAA-5-090424**	EPA 200.7	ARMN	3	PASI-K
		EPA 6010	ARMN	1	PASI-K
		EPA 200.8	JGP	10	PASI-K
		EPA 245.1	MLD	1	PASI-K
		EPA 300.0	MLL	3	PASI-SA
		SM 2540C	TML	1	PASI-K
		SM 4500-H+B	TML	1	PASI-K

PASI-K = Pace Analytical Services - Kansas City
PASI-SA = Pace Analytical Services - Salina

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: MW-FAA-5
Pace Project No.: 60459930

Method: **EPA 200.7**
Description: 200.7 Metals, Total
Client: Evergy_Haley & Aldrich
Date: September 20, 2024

General Information:
1 sample was analyzed for EPA 200.7 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 200.7 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

QC Batch: 907702

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60459928004,60459957004

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 3592655)
  - Calcium
- MS (Lab ID: 3592663)
  - Calcium

Additional Comments:

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: MW-FAA-5
Pace Project No.: 60459930

Method: **EPA 6010**
Description: 6010 MET ICP
Client: Evergy_Haley & Aldrich
Date: September 20, 2024

General Information:
1 sample was analyzed for EPA 6010 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Additional Comments:

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: MW-FAA-5
Pace Project No.: 60459930

Method: **EPA 200.8**
Description: 200.8 MET ICPMS
Client: Evergy_Haley & Aldrich
Date: September 20, 2024

General Information:
1 sample was analyzed for EPA 200.8 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 200.8 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Additional Comments:

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: MW-FAA-5
Pace Project No.: 60459930

Method: **EPA 245.1**
Description: 245.1 Mercury
Client: Evergy_Haley & Aldrich
Date: September 20, 2024

General Information:
1 sample was analyzed for EPA 245.1 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 245.1 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Additional Comments:

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: MW-FAA-5
Pace Project No.: 60459930

Method: **EPA 300.0**
Description: 300.0 IC Anions 28 Days
Client: Evergy_Haley & Aldrich
Date: September 20, 2024

General Information:
1 sample was analyzed for EPA 300.0 by Pace Analytical Services Salina. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Additional Comments:

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: MW-FAA-5
Pace Project No.: 60459930

Method: **SM 2540C**
Description: 2540C Total Dissolved Solids
Client: Evergy_Haley & Aldrich
Date: September 20, 2024

General Information:
1 sample was analyzed for SM 2540C by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: MW-FAA-5
Pace Project No.: 60459930

Method: **SM 4500-H+B**
Description: 4500H+ pH, Electrometric
Client: Evergy_Haley & Aldrich
Date: September 20, 2024

General Information:
1 sample was analyzed for SM 4500-H+B by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

H6: Analysis initiated outside of the 15 minute EPA required holding time.
- FAA-5-090424 (Lab ID: 60459930001)

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: MW-FAA-5
Pace Project No.: 60459930

Sample: FAA-5-090424 **Lab ID: 60459930001** Collected: 09/04/24 13:05 Received: 09/05/24 12:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Kansas City							
Barium, Total Recoverable	**<0.0050**	mg/L	0.0050	1	09/06/24 15:06	09/18/24 12:14	7440-39-3	
Boron, Total Recoverable	**1.7**	mg/L	0.10	1	09/06/24 15:06	09/18/24 12:14	7440-42-8	
Calcium, Total Recoverable	**518**	mg/L	0.20	1	09/06/24 15:06	09/18/24 12:14	7440-70-2	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Kansas City							
Lithium, Total Recoverable	**0.14**	mg/L	0.010	1	09/06/24 09:58	09/10/24 12:09	7439-93-2	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City							
Antimony, Total Recoverable	**<0.0010**	mg/L	0.0010	1	09/10/24 13:53	09/17/24 16:48	7440-36-0	
Arsenic, Total Recoverable	**0.0012**	mg/L	0.0010	1	09/10/24 13:53	09/17/24 16:48	7440-38-2	
Beryllium, Total Recoverable	**<0.00050**	mg/L	0.00050	1	09/10/24 13:53	09/17/24 16:48	7440-41-7	
Cadmium, Total Recoverable	**<0.00050**	mg/L	0.00050	1	09/10/24 13:53	09/17/24 16:48	7440-43-9	
Chromium, Total Recoverable	**0.0013**	mg/L	0.0010	1	09/10/24 13:53	09/17/24 16:48	7440-47-3	
Cobalt, Total Recoverable	**0.0025**	mg/L	0.0010	1	09/10/24 13:53	09/17/24 16:48	7440-48-4	
Lead, Total Recoverable	**<0.0010**	mg/L	0.0010	1	09/10/24 13:53	09/17/24 16:48	7439-92-1	
Molybdenum, Total Recoverable	**0.021**	mg/L	0.0010	1	09/10/24 13:53	09/17/24 16:48	7439-98-7	
Selenium, Total Recoverable	**<0.0010**	mg/L	0.0010	1	09/10/24 13:53	09/17/24 16:48	7782-49-2	
Thallium, Total Recoverable	**<0.0010**	mg/L	0.0010	1	09/10/24 13:53	09/17/24 16:48	7440-28-0	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 Pace Analytical Services - Kansas City							
Mercury	**<0.20**	ug/L	0.20	1	09/06/24 09:55	09/06/24 15:11	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Salina							
Chloride	**84.0**	mg/L	10.0	10		09/12/24 03:07	16887-00-6	
Fluoride	**0.79**	mg/L	0.10	1		09/11/24 14:55	16984-48-8	
Sulfate	**2110**	mg/L	200	200		09/12/24 03:22	14808-79-8	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Kansas City							
Total Dissolved Solids	**3420**	mg/L	100	1		09/06/24 10:17		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Kansas City							
pH at 25 Degrees C	**6.8**	Std. Units	0.10	1		09/10/24 17:28		H6

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MW-FAA-5
Pace Project No.: 60459930

QC Batch: 907629
QC Batch Method: EPA 245.1
Analysis Method: EPA 245.1
Analysis Description: 245.1 Mercury
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60459930001

METHOD BLANK: 3592233 Matrix: Water
Associated Lab Samples: 60459930001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	<0.20	0.20	09/06/24 14:16	

LABORATORY CONTROL SAMPLE: 3592234

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.7	95	85-115	

MATRIX SPIKE SAMPLE: 3592235

Parameter	Units	60459802001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	ND	5	4.9	98	70-130	

MATRIX SPIKE SAMPLE: 3592236

Parameter	Units	60459912001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	<0.20	5	4.2	84	70-130	

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QUALITY CONTROL DATA

Project: MW-FAA-5
Pace Project No.: 60459930

QC Batch: 907702
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 Metals, Total
Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60459930001

METHOD BLANK: 3592651 Matrix: Water
Associated Lab Samples: 60459930001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Barium	mg/L	<0.0050	0.0050	09/18/24 12:04	
Boron	mg/L	<0.10	0.10	09/18/24 12:04	
Calcium	mg/L	<0.20	0.20	09/18/24 12:04	

LABORATORY CONTROL SAMPLE: 3592652

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium	mg/L	1	0.94	94	85-115	
Boron	mg/L	1	0.90	90	85-115	
Calcium	mg/L	10	10.1	101	85-115	

MATRIX SPIKE SAMPLE: 3592655

Parameter	Units	60459957004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Barium	mg/L	0.013	1	1.0	98	70-130	
Boron	mg/L	0.20	1	1.2	96	70-130	
Calcium	mg/L	231	10	254	223	70-130	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3592663 3592664

Parameter	Units	60459928004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.031	1	1	1.0	0.96	100	93	70-130	7	20	
Boron	mg/L	0.64	1	1	1.6	1.6	99	91	70-130	5	20	
Calcium	mg/L	255	10	10	283	263	288	80	70-130	8	20	M1

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QUALITY CONTROL DATA

Project: MW-FAA-5
Pace Project No.: 60459930

QC Batch: 908014
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60459930001

METHOD BLANK: 3593670 Matrix: Water
Associated Lab Samples: 60459930001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	mg/L	<0.0010	0.0010	09/17/24 16:43	
Arsenic	mg/L	<0.0010	0.0010	09/17/24 16:43	
Beryllium	mg/L	<0.00050	0.00050	09/17/24 16:43	
Cadmium	mg/L	<0.00050	0.00050	09/17/24 16:43	
Chromium	mg/L	<0.0010	0.0010	09/17/24 16:43	
Cobalt	mg/L	<0.0010	0.0010	09/17/24 16:43	
Lead	mg/L	<0.0010	0.0010	09/17/24 16:43	
Molybdenum	mg/L	<0.0010	0.0010	09/17/24 16:43	
Selenium	mg/L	<0.0010	0.0010	09/17/24 16:43	
Thallium	mg/L	<0.0010	0.0010	09/17/24 16:43	

LABORATORY CONTROL SAMPLE: 3593671

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.04	0.039	98	85-115	
Arsenic	mg/L	0.04	0.040	101	85-115	
Beryllium	mg/L	0.04	0.041	102	85-115	
Cadmium	mg/L	0.04	0.041	101	85-115	
Chromium	mg/L	0.04	0.041	103	85-115	
Cobalt	mg/L	0.04	0.041	102	85-115	
Lead	mg/L	0.04	0.040	99	85-115	
Molybdenum	mg/L	0.04	0.040	101	85-115	
Selenium	mg/L	0.04	0.041	102	85-115	
Thallium	mg/L	0.04	0.040	99	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3593672 3593673

Parameter	Units	60459930001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	<0.0010	0.04	0.04	0.037	0.037	93	93	70-130	1	20	
Arsenic	mg/L	0.0012	0.04	0.04	0.041	0.041	99	98	70-130	1	20	
Beryllium	mg/L	<0.00050	0.04	0.04	0.034	0.035	86	87	70-130	2	20	
Cadmium	mg/L	<0.00050	0.04	0.04	0.036	0.036	89	89	70-130	1	20	
Chromium	mg/L	0.0013	0.04	0.04	0.041	0.041	100	99	70-130	1	20	
Cobalt	mg/L	0.0025	0.04	0.04	0.044	0.044	103	103	70-130	0	20	
Lead	mg/L	<0.0010	0.04	0.04	0.038	0.038	95	95	70-130	0	20	
Molybdenum	mg/L	0.021	0.04	0.04	0.065	0.064	108	108	70-130	0	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MW-FAA-5
Pace Project No.: 60459930

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3593672 3593673

Parameter	Units	60459930001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Selenium	mg/L	<0.0010	0.04	0.04	0.041	0.042	103	104	70-130	2	20	
Thallium	mg/L	<0.0010	0.04	0.04	0.040	0.040	99	99	70-130	0	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MW-FAA-5
Pace Project No.: 60459930

QC Batch: 907611
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60459930001

METHOD BLANK: 3592168 Matrix: Water
Associated Lab Samples: 60459930001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lithium	mg/L	<0.010	0.010	09/10/24 11:41	

LABORATORY CONTROL SAMPLE: 3592169

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lithium	mg/L	1	1.2	118	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3592170 3592171

Parameter	Units	60459912001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lithium	mg/L	0.015	1	1	1.2	1.2	118	119	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MW-FAA-5
Pace Project No.: 60459930

QC Batch: 907950
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Salina
Associated Lab Samples: 60459930001

METHOD BLANK: 3593427 Matrix: Water
Associated Lab Samples: 60459930001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<1.0	1.0	09/11/24 08:11	
Fluoride	mg/L	<0.10	0.10	09/11/24 08:11	
Sulfate	mg/L	<1.0	1.0	09/11/24 08:11	

LABORATORY CONTROL SAMPLE: 3593428

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5	4.9	98	90-110	
Fluoride	mg/L	2.5	2.6	102	90-110	
Sulfate	mg/L	5	5.1	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3593429 3593430

Parameter	Units	60459912001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	175	100	100	282	281	107	106	80-120	0	15	
Fluoride	mg/L	0.30	2.5	2.5	2.7	2.7	96	96	80-120	0	15	
Sulfate	mg/L	880	500	500	1360	1380	97	99	80-120	1	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3593431 3593432

Parameter	Units	60459957004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	66.0	50	50	119	120	106	108	80-120	1	15	
Fluoride	mg/L	0.33	2.5	2.5	2.7	2.7	95	95	80-120	0	15	
Sulfate	mg/L	592	500	500	1110	1100	104	102	80-120	1	15	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MW-FAA-5
Pace Project No.: 60459930

QC Batch: 907636
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60459930001

METHOD BLANK: 3592254 Matrix: Water
Associated Lab Samples: 60459930001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<5.0	5.0	09/06/24 10:14	

LABORATORY CONTROL SAMPLE: 3592255

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	1000	981	98	80-120	

SAMPLE DUPLICATE: 3592256

Parameter	Units	60459722004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	844	888	5	10	

SAMPLE DUPLICATE: 3592257

Parameter	Units	60459922004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	624	633	1	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MW-FAA-5
Pace Project No.: 60459930

QC Batch: 907980
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60459930001

SAMPLE DUPLICATE: 3593536

Parameter	Units	60459928003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.8	6.8	1	5	H6

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: MW-FAA-5
Pace Project No.: 60459930

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

H6	Analysis initiated outside of the 15 minute EPA required holding time.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MW-FAA-5
Pace Project No.: 60459930

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60459930001	**FAA-5-090424**	EPA 200.7	907702	EPA 200.7	907742
60459930001	**FAA-5-090424**	EPA 3010	907611	EPA 6010	907670
60459930001	**FAA-5-090424**	EPA 200.8	908014	EPA 200.8	908035
60459930001	**FAA-5-090424**	EPA 245.1	907629	EPA 245.1	907660
60459930001	**FAA-5-090424**	EPA 300.0	907950		
60459930001	**FAA-5-090424**	SM 2540C	907636		
60459930001	**FAA-5-090424**	SM 4500-H+B	907980		

WO# : 60459930

60459930

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-LENE-0009_Sample C	
	Revision: 2	Effective Date: 01/12/2022

Client Name: Evergy KS

Courier: FedEx ☐ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☑ Other ☐

Tracking #: _____ Pace Shipping Label Used? Yes ☑ No ☐

Custody Seal on Cooler/Box Present: Yes ☑ No ☐ Seals intact: Yes ☑ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☐ None ☐ Other ☑

Thermometer Used: T298 **Type of Ice:** Wet Blue None

Cooler Temperature (°C): **As-read** 4.2 **Corr. Factor** -1 **Corrected** 4.1

Date and initials of person examining contents: CW 4/8

Temperature should be above freezing to 6°C

Chain of Custody present:	☑Yes ☐No ☐N/A	
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	
Samples arrived within holding time:	☑Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☑No ☐N/A	
Rush Turn Around Time requested:	☐Yes ☑No ☐N/A	
Sufficient volume:	☑Yes ☐No ☐N/A	
Correct containers used:	☑Yes ☐No ☐N/A	
Pace containers used:	☑Yes ☐No ☐N/A	
Containers intact:	☑Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☑No ☐N/A	
Filtered volume received for dissolved tests?	☐Yes ☑No ☐N/A	
Sample labels match COC: Date / time / ID / analyses	☑Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: WT	☐Yes ☑No ☐N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO) **LOT#:** 88721	☑Yes ☐No ☐N/A	List sample IDs, volumes, lot #'s of preservative and the date/time added.
Cyanide water sample checks: Lead acetate strip turns dark? (Record only)	☐Yes ☐No	
Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No	
Trip Blank present:	☐Yes ☐No ☑N/A	
Headspace in VOA vials (>6mm):	☐Yes ☐No ☑N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☑N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☑N/A	

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

Pace® Location Requested (City/State):
Pace Analytical Kansas
9608 Loiret Blvd., Lenexa, KS 66219

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

Scan QR Code for instructions

Company Name:	Evergy Kansas Central, Inc.	Contact/Report To:	Jake Humphrey
Street Address:	818 S Kansas Avenue, Topeka, KS 66612	Phone #:	(913)634-0605
		E-Mail:	jake.humphrey@evergy.com
		Cc E-Mail:	skaney@haleyaldrich.com
Customer Project #:			
Project Name:	MW-FAA-5	Invoice To:	Jeffrey Center
		Invoice E-Mail:	evergyap@onlinecapturecenter.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	WSTR-2000095397
		Quote #:	

Time Zone Collected: [ ] AK [ ] PT [ ] MT [X] CT [ ] ET

County / State origin of sample(s): Kansas

Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [X] No

Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested:

Field Filtered (if applicable): [ ] Yes [X] No

Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Specify Container Size **: 3 2 3 3

Identify Container Preservative Type***: 2 1 1 1

Analysis Requested

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	200.7 / 200.8 / 245.1/6010	2540C Total Dissolved Solids	300.0 IC Cl, F, SO4	4500H+ pH, Electrometric	Sample Comment	Preservation non-conformance identified for sample
FAA-5-090424	WT	Grab	-	-	9/4/2024	1305	4	-	-	X	X	X	X		

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only:
Proj. Mgr: Alice Spiller
AcctNum / Client ID:
Table #:
Profile / Template: 16500
Prelog / Bottle Ord. ID: EZ 3150860

Additional Instructions from Pace®:
200.7 B, Ca, Ba, Be, Cr, Pb
200.8 Sb, As, Co, Mo, Se, Tl
6010 Li
245.1 Hg

Collected By: (Printed Name) Jason R. Franks

Signature: Jason R. Franks

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
				4.1	

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
Jason R. Franks / SCS	09/05/2024 / 1230		9/5 1250	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In- Person [ ] Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	[ ] FedEx [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 1 of 1

Client: Evergy Kansas Central/HC Profile/EZ.# 315086

Site: MW-FAA-5 Notes

COC Line Item	Matrix	VG9H	DG9H	DG9Q	VG9U	DG9U	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	BP3U	BP1N	BP3N	BP3F	BP3S	BP3B	BP3Z	WPDU	ZPLC	Other		
1																				1	2	1										
2																																
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass			
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass
		AG5U	100mL unpres amber glass

Plastic	
BP1B	1L NAOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn Acetate
BP2B	500mL NAOH plastic
BP2N	500mL HNO3 plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Acetate
BP3B	250mL NaOH plastic
BP3F	250mL HNO3 plastic - field filtered
BP3N	250mL HNO3 plastic
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, Zn Acetate
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic
WPDU	16oz unpresserved plstic

Misc.	
I	Wipe/Swab
SP5T	120mL Coliform Na Thiosulfate
ZPLC	Ziploc Bag
AF	Air Filter
C	Air Cassettes
R	Terracore Kit
U	Summa Can

Matrix	
WT	Water
SL	Solid
NAL	Non-aqueous Liquid
OL	OIL
WP	Wipe
DW	Drinking Water

Work Order Number: 94591130

Intra-Regional Chain of Custody

Pace Analytical®
www.pacelabs.com

Workorder: 60459930 **Workorder Name:** MW-FAA-5 **Owner Received Date:** 9/5/2024 **Due Date:** 9/19/2024

Received at:	Send To Lab:
Pace Analytical Kansas 9608 Loiret Blvd. Lenexa, KS 66219 Phone (913)599-5665	Pace Analytical Salina 528 N. 9th Street Salina, KS 67401 Phone (785)827-1273

Report To:
Alice Spiller

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved	Requested Analysis: EPA 300.0	LAB USE ONLY
1	FAA-5-090424	PS	9/4/2024 13:05	60459930001	Water	1	X	
2								
3								
4								
5								

Transfers	Released By	Date/Time	Received By	Date/Time
1	[signature] 9-10-24		[signature] 9-10-24	1500
2				
3				
4				

Comments

300.0 Cl, F, SO4

KS sample location: 6090-R2-S3B

Cooler Temperature on Receipt 1-4 °C **Custody Seal** (Y) or N **Received on Ice** (Y) or N **Samples Intact** (Y) or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.*
This chain of custody is considered complete as is since this information is available in the owner laboratory.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

October 29, 2024

Jake Humphrey
Evergy, Inc.
818 S Kansas Avenue
Topeka, KS 66612

RE: Project: JEC FAL CCR MW-FAA-6
Pace Project No.: 60463176

Dear Jake Humphrey:

Enclosed are the analytical results for sample(s) received by the laboratory on October 24, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Kansas City

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

Sincerely,

Alice Spiller

Alice Spiller
alice.spiller@pacelabs.com
(913)599-5665
PM Lab Management

Enclosures

cc: Samantha Kaney, Haley & Aldrich
Nick Williams, Haley Aldrich

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

CERTIFICATIONS

Project: JEC FAL CCR MW-FAA-6
Pace Project No.: 60463176

Pace Analytical Services Kansas
9608 Loiret Boulevard, Lenexa, KS 66219
Arkansas Certification #: 88-00679
Illinois Certification #: 2000302023-6
Colorado Division of Oil and Public Safety
Iowa Certification #: 118
Kansas Field Laboratory Certification #: E-92587
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Missouri Inorganic Drinking Water Certification
Nevada Certification #: KS000212024-1
Oklahoma Certification #: 2023-073
Texas Certification #: T104704407-23-17
Utah Certification #: KS000212022-13

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE SUMMARY

Project: JEC FAL CCR MW-FAA-6
Pace Project No.: 60463176

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60463176001	**FAA-6-102324**	Water	10/23/24 10:35	10/24/24 00:48

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE ANALYTE COUNT

Project: JEC FAL CCR MW-FAA-6
Pace Project No.: 60463176

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60463176001	**FAA-6-102324**	EPA 200.8	JGP	2	PASI-K

PASI-K = Pace Analytical Services - Kansas City

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: JEC FAL CCR MW-FAA-6
Pace Project No.: 60463176

Method: **EPA 200.8**
Description: 200.8 MET ICPMS
Client: Evergy_Haley & Aldrich
Date: October 29, 2024

General Information:
1 sample was analyzed for EPA 200.8 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 200.8 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

QC Batch: 913948

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60463176001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MSD (Lab ID: 3618305)
  - Molybdenum

Additional Comments:

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

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: JEC FAL CCR MW-FAA-6
Pace Project No.: 60463176

Sample: FAA-6-102324 **Lab ID: 60463176001** Collected: 10/23/24 10:35 Received: 10/24/24 00:48 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Kansas City							
Arsenic, Total Recoverable	**0.010**	mg/L	0.0010	1	10/25/24 08:15	10/29/24 12:56	7440-38-2	
Molybdenum, Total Recoverable	**0.55**	mg/L	0.0010	1	10/25/24 08:15	10/29/24 12:56	7439-98-7	M1

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: JEC FAL CCR MW-FAA-6
Pace Project No.: 60463176

QC Batch: 913948
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60463176001

METHOD BLANK: 3618302 Matrix: Water
Associated Lab Samples: 60463176001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	<0.0010	0.0010	10/29/24 12:52	
Molybdenum	mg/L	<0.0010	0.0010	10/29/24 12:52	

LABORATORY CONTROL SAMPLE: 3618303

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.04	0.039	98	85-115	
Molybdenum	mg/L	0.04	0.039	99	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3618304 3618305

Parameter	Units	60463176001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	0.010	0.04	0.04	0.049	0.049	97	97	70-130	1	20	
Molybdenum	mg/L	0.55	0.04	0.04	0.59	0.58	80	57	70-130	2	20	M1

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALIFIERS

Project: JEC FAL CCR MW-FAA-6
Pace Project No.: 60463176

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: JEC FAL CCR MW-FAA-6
Pace Project No.: 60463176

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60463176001	**FAA-6-102324**	EPA 200.8	913948	EPA 200.8	914043

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-LENE-0009_S	
	Revision: 2	Effective Date: 01/1

WO# : 60463176

60463176

Client Name: EHA

Courier: FedEx ☐ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☑ Other ☐

Tracking #: _____ Pace Shipping Label Used? Yes ☑ No ☐

Custody Seal on Cooler/Box Present: Yes ☑ No ☐ Seals intact: Yes ☑ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☐ None ☐ Other ☐

Thermometer Used: T208 **Type of Ice:** Wet Blue None

Cooler Temperature (°C): **As-read** 1.7 **Corr. Factor** -.1 **Corrected** 1.6

Date and initials of person examining contents: CW 10/24

Temperature should be above freezing to 6°C

Chain of Custody present:	☑Yes ☐No ☐N/A	
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	
Samples arrived within holding time:	☑Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☑No ☐N/A	
Rush Turn Around Time requested: 2 day	☑Yes ☐No ☐N/A	
Sufficient volume:	☑Yes ☐No ☐N/A	
Correct containers used:	☑Yes ☐No ☐N/A	
Pace containers used:	☑Yes ☐No ☐N/A	
Containers intact:	☑Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☑No ☐N/A	
Filtered volume received for dissolved tests?	☐Yes ☑No ☐N/A	
Sample labels match COC: Date / time / ID / analyses	☑Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: WT	☐Yes ☑No ☐N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO) **LOT#:** 87121	☑Yes ☐No ☐N/A	List sample IDs, volumes, lot #'s of preservative and the date/time added.
Cyanide water sample checks: Lead acetate strip turns dark? (Record only)	☐Yes ☐No	
Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No	
Trip Blank present:	☐Yes ☐No ☑N/A	
Headspace in VOA vials (>6mm):	☐Yes ☐No ☑N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☑N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☑N/A	

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

Pace® Location Requested (City/State):
Pace Analytical Kansas
9608 Loiret Blvd., Lenexa, KS 66219

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

Scan QR Code for instructions

EQ463176

Company Name:	Evergy_Haley & Aldrich	Contact/Report To:	Jake Humphrey
Street Address:	818 S Kansas Avenue Topeka, KS 66612	Phone #:	(913)634-0605
		E-Mail:	jake.humphrey@evergy.com
		Cc E-Mail:	skaney@haleyaldrich.com
Customer Project #:			
Project Name:	JEC FAL CCR MW-FAA-6	Invoice To:	Jeffrey Center
		Invoice E-Mail:	evergyap@onlinecapturecenter.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	WSTR-2000095397
		Quote #:	

Time Zone Collected: [ ] AK [ ] PT [ ] MT [X] CT [ ] ET

County / State origin of sample(s): Kansas

Data Deliverables:
[ ] Level II [ ] Level III [ ] Level IV
[ ] EQUIS
[ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [X] No

Rush (Pre-approval required):
[ ] Same Day [ ] 1 Day [X] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested:

Field Filtered (if applicable): [ ] Yes [X] No

Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	200.7//200.8 *As, Mo
FAA-6-102324	WT	Grab	-	-	10/23/2024	1035	1	-	-	X

Specify Container Size **: 3

Identify Container Preservative Type***: 2

Analysis Requested

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only

Proj. Mgr: Alice Spiller
AcctNum / Client ID:
Table #:
Profile / Template: 16500
Prelog / Bottle Ord. ID: EZ 3166042

Sample Comment

Preservation non-conformance identified for sample.

Additional Instructions from Pace®:

Collected By: (Printed Name) Jason R. Franks

Signature: Jason R. Franks

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
	T298	-0.1	1.7	1.6	

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Jason R. Franks / SCS	10/24/2024 / 1030	Carmen Jure	10/24 12:48
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

Tracking Number:

Delivered by: [ ] In- Person [ ] Courier [ ] FedEx [ ] UPS [ ] Other

Client: RH&A

Profile/EZ # 3166942

Site: RAAG

Notes

COC Line Item	Matrix	VG9H	DG9H	DG9Q	VG9U	DG9U	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	BP3U	BP1N	BP3N	BP3F	BP3S	BP3B	BP3Z	WPDU	ZPLC	Other		
1	WT																						1									
2																																
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass			
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass
		AG5U	100mL unpres amber glass

Plastic	
BP1B	1L NAOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn Acetate
BP2B	500mL NAOH plastic
BP2N	500mL HNO3 plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Acetate
BP3B	250mL NaOH plastic
BP3F	250mL HNO3 plastic - field filtered
BP3N	250mL HNO3 plastic
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, Zn Acetate
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic
WPDU	16oz unpresserved plstic

Misc.	
I	Wipe/Swab
SP5T	120mL Coliform Na Thiosulfate
ZPLC	Ziploc Bag
AF	Air Filter
C	Air Cassettes
R	Terracore Kit
U	Summa Can

Matrix	
WT	Water
SL	Solid
NAL	Non-aqueous Liquid
OL	OIL
WP	Wipe
DW	Drinking Water

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