

2022 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT FLY ASH LANDFILL JEFFREY ENERGY CENTER ST. MARYS, KANSAS

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for Evergy Kansas Central, Inc. Topeka, Kansas

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2022 Annual Groundwater Monitoring and Corrective Action Report

Table of Contents

				Page									
1.	Intro	Introduction											
	1.1	40 CFR	R § 257.90(E)(6) SUMMARY	1									
		1.1.1	40 CFR § 257.90(e)(6)(i) – Initial Monitoring Program	1									
		1.1.2	40 CFR § 257.90(e)(6)(ii) – Final Monitoring Program	1									
		1.1.3	40 CFR § 257.90(e)(6)(iii) – Statistically Significant Increases	1									
		1.1.4	40 CFR § 257.90(e)(6)(iv) – Statistically Significant Levels	2									
		1.1.5	40 CFR § 257.90(e)(6)(v) – Selection of Remedy	3									
		1.1.6	40 CFR § 257.90(e)(6)(vi) – Remedial Activities	3									
2.	40 C	4											
	2.1	40 CFR	R § 257.90(A)	4									
	2.2	40 CFR	R § 257.90(E) – SUMMARY	4									
		2.2.1	Status of the Groundwater Monitoring Program	4									
		2.2.2	Key Actions Completed	5									
		2.2.3	Problems Encountered	5									
		2.2.4	Actions to Resolve Problems	5									
		2.2.5	Project Key Activities for Upcoming Year	5									
	2.3	40 CFR	R § 257.90(E) – INFORMATION	5									
		2.3.1	40 CFR § 257.90(e)(1)	6									
		2.3.2	40 CFR § 257.90(e)(2) – Monitoring System Changes	6									
		2.3.3	40 CFR § 257.90(e)(3) – Summary of Sampling Events	6									
		2.3.4	40 CFR § 257.90(e)(4) – Monitoring Transition Narrative	6									
		2.3.5	40 CFR § 257.90(e)(5) – Other Requirements	7									

Revision No.	Date	Notes

i



List of Tables

Table No.	Title
1	Summary of Analytical Results – 2022 Assessment Monitoring
II	Assessment Groundwater Monitoring – Detected Appendix IV GWPS – September 2021 and March 2022 Sampling Event

List of Figures

Figure No.	Title														
1	Fly Ash Landfill, Monitoring Well Location Map														
2	Fly Ash Landfill Groundwater Potentiometric Elevation Contour Map – March 9, 2022														
3	Fly Ash Landfill Groundwater Potentiometric Elevation Contour Map – June 13, 2022														
4	Fly Ash Landfill Groundwater Potentiometric Elevation Contour Map – September 8, 2022														

List of Attachments

Attachment 1 – Statistical Analyses

1-1	September 2021 Semi-Annual Groundwater Assessment Monitoring Data Statistical Evaluation
1-2	March 2022 Semi-Annual Groundwater Assessment Monitoring Data Statistical Evaluation

Attachment 2 – Laboratory Analytical Reports

2-1	March 2022 Semi-Annual Sampling Event Laboratory Analytical Report
2-2	June 2022 Annual Assessment Sampling Event Laboratory Analytical Report
2-3	September 2022 Semi-Annual Sampling Event Laboratory Analytical Report



2022 Annual Groundwater Monitoring and Corrective Action Report

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 (2022) and documents compliance with the U.S. Environmental Protection Agency Coal Combustion Residual Rule. I certify that the 2022 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: Technical Expert 2
Company: Haley & Aldrich, Inc.

1. Introduction

This 2022 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 Code of Federal Regulations Title 40 (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 (2022) 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, 2022), 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, 2022), 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 2022.

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 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 in 2022.

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 those constituents listed in appendix IV to this part in 2022 for the FAL. The statistical evaluation reports for semi-annual assessment monitoring sampling events from September 2021 and March 2022 were completed in January 2022 and July 2022, 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 2022 for this unit. The FAL remained in assessment monitoring during 2022.

1.1.4.3 40 CFR § 257.90(e)(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



2022 Annual Groundwater Monitoring and Corrective Action Report

An assessment of corrective measures was not required for the FAL in 2022; 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 2022 for this unit. The FAL remained in assessment monitoring during 2022.

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 in 2022.



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 the applicable groundwater-related activities completed in the calendar year 2022.

2.2.1 Status of the Groundwater Monitoring Program

The FAL remained in the assessment monitoring program during 2022.



2022 Annual Groundwater Monitoring and Corrective Action Report

2.2.2 Key Actions Completed

The 2021 Annual Groundwater Monitoring and Corrective Action Report was completed in January 2022. Statistical evaluation was completed in January 2022 on analytical data from the September 2021 semi-annual assessment monitoring sampling event.

A semi-annual assessment monitoring sampling event was completed in March 2022 for detected appendix IV constituents identified from the June 2021 annual assessment monitoring sampling event. Statistical evaluation was completed in July 2022 on analytical data from the March 2022 semi-annual assessment monitoring sampling event.

An annual assessment monitoring sampling event was completed on June 13, 2022 to identify detected appendix IV constituents for subsequent semi-annual sampling events in September 2022 and planned for March 2023. Semi-annual assessment monitoring sampling was completed in September 2022 for detected appendix IV constituents identified during the June 2022 annual monitoring event. Statistical evaluation of the results from the September 2022 semi-annual assessment monitoring sampling event are due to be completed in January 2023 and will be reported in the next annual report.

2.2.3 Problems Encountered

No noteworthy problems (i.e., problems could include damaged wells, issues with sample collection or lack of sampling, and problems with analytical analysis) were encountered at the FAL in 2022.

2.2.4 Actions to Resolve Problems

No problems were encountered at the FAL in 2022, therefore, no actions to resolve problems were required.

2.2.5 Project Key Activities for Upcoming Year

Key activities planned for 2023 include the completion of the 2022 Annual Groundwater Monitoring and Corrective Action Report, statistical evaluation of semi-annual assessment monitoring analytical data collected in September 2022, semi-annual 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 2022.

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 2022. 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, along with calculated groundwater flow rates and directions, associated with each groundwater monitoring sampling event in 2022 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 2022.



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 2022.

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 2022. Analytical results for both downgradient and upgradient wells are provided in Table I. The background concentrations (upper tolerance limits) and groundwater protection standards established for detected appendix IV constituents for the FAL are included in Table II. The background concentrations and groundwater protection standards provided in Table II were utilized for the statistical evaluations completed in 2022 for September 2021 and March 2022 semi-annual assessment monitoring sampling 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 2022. The FAL remained in assessment monitoring during 2022.

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 2022; therefore, no demonstration or certification is applicable for this unit.



TABLES

TABLE I

SUMMARY OF ANALYTICAL RESULTS - 2022 ANNUAL ASSESSMENT MONITORING

EVERGY KANSAS CENTRAL, INC. JEFFREY ENERGY CENTER, FLY ASH LANDFILL ST. MARYS, KANSAS

Location		Upgradient							Downgo	radient								
Location		MW-FAA-5			MW-FAA-3			MW-FAA-4		MW-FAA-6								
Measure Point (TOC)		1250.80			1165.66			1213.81		1162.76								
Sample Name	MW-FAA-5-030922	FAA-5-06/13/22	MW-FAA-5-090822	FAA-3-030922	FAA-3-06/13/22 MW-FAA-3-090822		FAA-4-030922 FAA-4-06/13/22		MW-FAA-4-090822	FAA-6-030922	DUP-FAA-030922	FAA-6-06/13/22	DUP-FAA-06/13/22	MW-FAA-6-090822	DUP-FAA-090822			
Sample Date	3/9/2022	06/13/2022	9/8/2022	3/9/2022	06/13/2022	9/8/2022	3/9/2022	06/13/2022	9/8/2022	3/9/2022	3/9/2022	06/13/2022	06/13/2022	9/8/2022	9/8/2022			
Final Lab Report Date	3/31/2022 ¹	6/29/2022	9/23/2022	3/25/2022	6/29/2022	9/23/2022	3/25/2022	6/29/2022	9/23/2022	3/25/2022	3/25/2022	6/29/2022	6/29/2022	9/23/2022	9/23/2022			
Final Lab Report Revision Date	3/31/2022	7/20/2022	10/14/2022	4/27/2022	7/20/2022	10/14/2022	4/27/2022	7/20/2022	10/14/2022	4/27/2022	4/27/2022	7/20/2022	7/20/2022	10/14/2022	10/14/2022			
Final Radiation Lab Report Revision Date	3/31/2022	8/1/2022	10/4/2022	4/27/2022	8/1/2022	10/13/2022	4/27/2022	8/1/2022	10/13/2022	4/27/2022	4/27/2022	8/1/2022	8/1/2022	10/13/2022	10/13/2022			
Lab Data Reviewed and Accepted	4/27/2022	7/29/2022	11/7/2022	4/27/2022	7/29/2022	11/7/2022	4/27/2022	7/29/2022	11/7/2022	4/27/2022	4/27/2022	7/29/2022	7/29/2022	11/7/2022	11/7/2022			
Depth to Water (ft btoc)	87.15	87.08	87.01	15.31	13.17	15.58	58.76	55.75	57.52	17.58	-	15.65	-	19.28	-			
Temperature (Deg C)	13.02	19.82	18.95	13.27	18.30	22.28	12.07	19.83	20.65	13.75	-	21.43	-	18.35	-			
Conductivity (μS/cm)	3530	3600	3490	1500	1570	1620	1670	1570	1570	2130	-	1448	-	2030	-			
Turbidity (NTU)	0.9	0.0	5.0	1.6	0.0	0.0	0.0	0.0	0.0	2.7	-	0.0	-	0.0	-			
pH, Field (su)	6.79	6.60	6.85	6.96	6.92	6.94	7.04	6.93	7.11	7.38	-	6.93	-	7.17	-			
Boron, Total (mg/L)	1.7	-	1.6	0.54	-	0.52	0.73	-	0.80	2.6	2.7	-	-	2.0	2.0			
Calcium, Total (mg/L)	560	-	471	193	-	182	200	-	164	115	111	-	-	132	128			
Chloride (mg/L)	87.7	-	83.1	77.2	-	95.5	86.6	-	96.2	75.4	75.1	-	-	65.8	65.6			
Fluoride (mg/L)	0.46	0.58	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	0.5	0.24	0.56	0.57	0.58	0.58	0.35	0.36			
Sulfate (mg/L)	1130	-	2160	445	-	483	530	-	533	894	864	-	-	1170	1090			
pH (su)	6.9	-	7.2	7.2	-	7.4	7.2	-	7.1	7.5	7.6	-	-	7.4	7.5			
TDS (mg/L)	2570	-	3780	1540	-	1220	1190	-	1250	1500	1520	-	-	1820	1910			
Antimony, Total (mg/L)	< 0.0010	< 0.0010	< 0.0010	-	< 0.0010	-	-	< 0.0010	-	-	-	< 0.0010	< 0.0010	-	-			
Arsenic (mg/L)	0.0011	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	0.010	0.011	0.0049	0.0055	0.0053	0.0053			
Barium, Total (mg/L)	< 0.0050	< 0.0050	< 0.0050	0.032	0.030	0.030	0.049	0.044	0.051	0.028	0.027	0.034	0.033	0.040	0.039			
Beryllium, Total (mg/L)	< 0.0010	< 0.0010	< 0.0010	-	< 0.0010	-	-	< 0.0010	-	-	-	< 0.0010	< 0.0010	-	-			
Cadmium, Total (mg/L)	< 0.00050	< 0.00050	< 0.00050	-	< 0.00050	-	-	< 0.00050	-	-	-	< 0.00050	< 0.00050	-	-			
Chromium, Total (mg/L)	< 0.0050	< 0.0050	< 0.0050	-	< 0.0050	-	-	< 0.0050	-	-	-	< 0.0050	< 0.0050	-	-			
Cobalt, Total (mg/L)	0.0011	0.0012	0.0033	< 0.0010	< 0.0010	< 0.0010	0.0014	0.0016	0.0018	0.0013	0.0013	0.0019	0.0017	0.0019	0.0019			
Lead, Total (mg/L)	< 0.010	< 0.010	< 0.010	-	< 0.010	-	-	< 0.010	-	-	-	< 0.010	< 0.010	-	-			
Lithium, Total (mg/L)	0.11	0.12	0.160	< 0.030	0.015	0.016	< 0.030	0.024	0.023	< 0.030	< 0.030	0.016	0.016	0.015	0.013			
Molybdenum, Total (mg/L)	0.018	0.020	0.026	0.0078	0.0079	0.0082	0.0078	0.0098	0.011	0.20	0.21	0.17	0.20	0.34	0.36			
Selenium, Total (mg/L)	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	0.0018	0.0016	0.0021	0.0021			
Thallium, Total (mg/L)	< 0.0010	< 0.0010	< 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	< 0.00020	-	-			
Fluoride (mg/L)	0.46	0.58	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	0.50	0.24	0.56	0.57	0.58	0.58	0.35	0.36			
Radium-226 & 228 Combined (pCi/L)		0.418 ± 0.564 (1.04)	ł		1.27 ± 0.703 (0.890)	-		0.429 ± 0.636 (1.30)	0.00551 ± 0.556 (0.924)	0.0939 ± 0.787 (1.68)	0.416 ± 0.848 (1.74)	0.355 ± 0.543 (0.864)	0.560 ± 0.593 (1.11)	0.543 ± 0.750 (1.15)				
Notes:					_ = = (= (= (= (= (= (= (= (= (= (= (= (=					1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1								

 $\textbf{\textit{Bold value:}}\ \ \textit{Detection above laboratory reporting limit or minimum detectable concentration (MDC)}\ \ .$

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 N/A = Not Applicable

NTU = Nephelometric Turbidity Unit 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 2021 AND MARCH 2022 SAMPLING EVENTS 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)	0.0035	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)	0.00498	NA
MW-FAA-3		0.006
MW-FAA-4		0.006
MW-FAA-6		0.006
	CCR Appendix-IV Fluoride, Total (mg	;/L)
MW-FAA-5 (upgradient)	1.363	NA
MW-FAA-3		4.0
MW-FAA-4		4.0
MW-FAA-6		4.0
	CCR Appendix-IV Lithium, Total (mg	/L)
MW-FAA-5 (upgradient)	0.170	NA
MW-FAA-3		0.170
MW-FAA-4		0.170
MW-FAA-6		0.170
	CCR Appendix-IV Molybdenum, Total (mg/L)
MW-FAA-5 (upgradient)	0.0597	NA
MW-FAA-3		0.100
MW-FAA-4		0.100
MW-FAA-6	0.901 ²	0.901
CC	R Appendix-IV Radium-226 & 228 Combin	ned (pCi/L)
MW-FAA-5 (upgradient)	2.191	NA
MW-FAA-3		5
MW-FAA-4		5
MW-FAA-6		5
	CCR Appendix-IV Selenium, Total (m	
MW-FAA-5 (upgradient)	0.0039	NA
MW-FAA-3		0.05
MW-FAA-4		0.05
MW-FAA-6		0.05

Notes:

CCR = coal combustion residuals

GWPS = groundwater protection standard

MCL = maximum contaminant level

mg/L = milligrams per liter

NA = Not Applicable

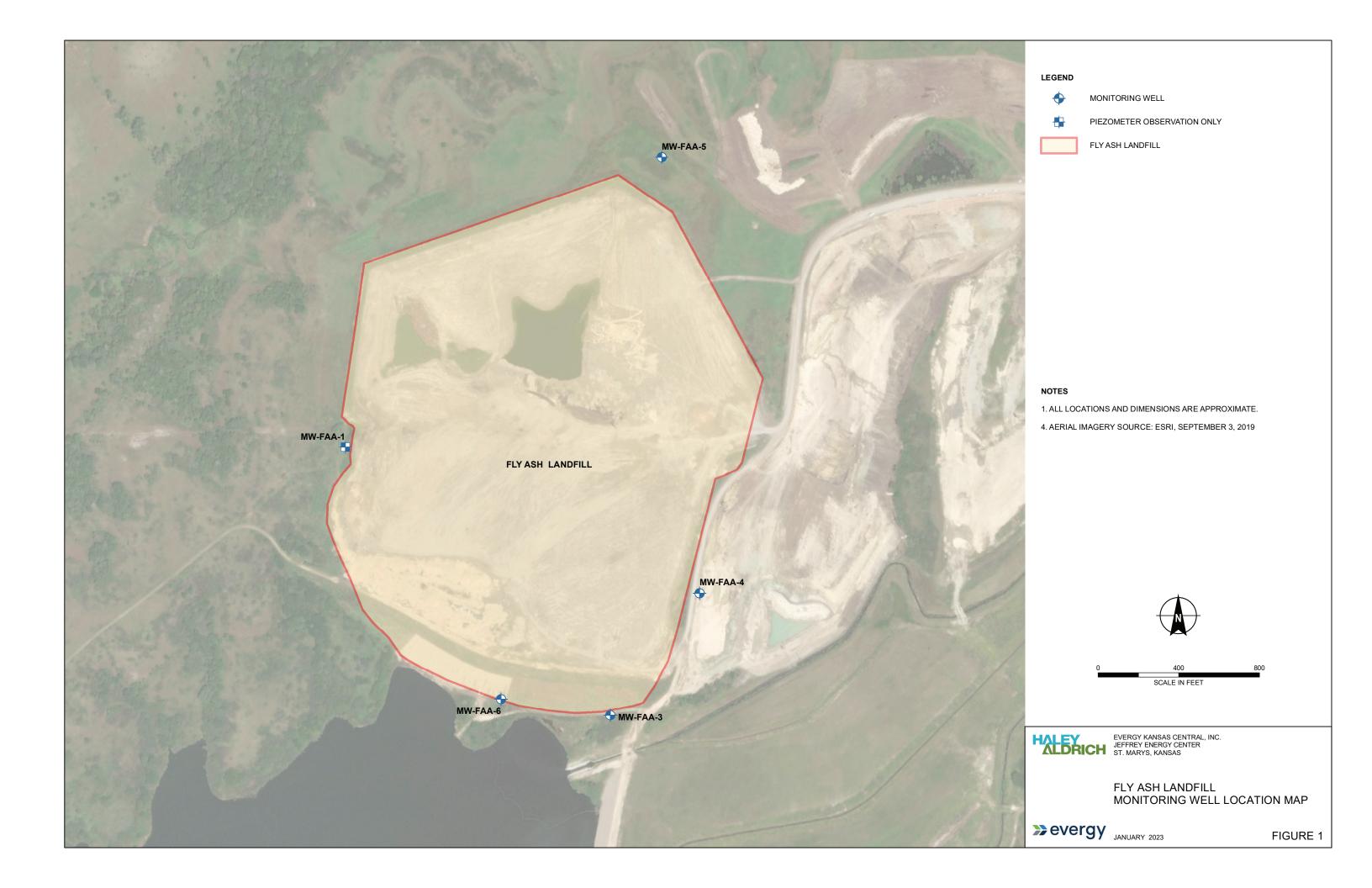
pCi/L = picoCuries per liter

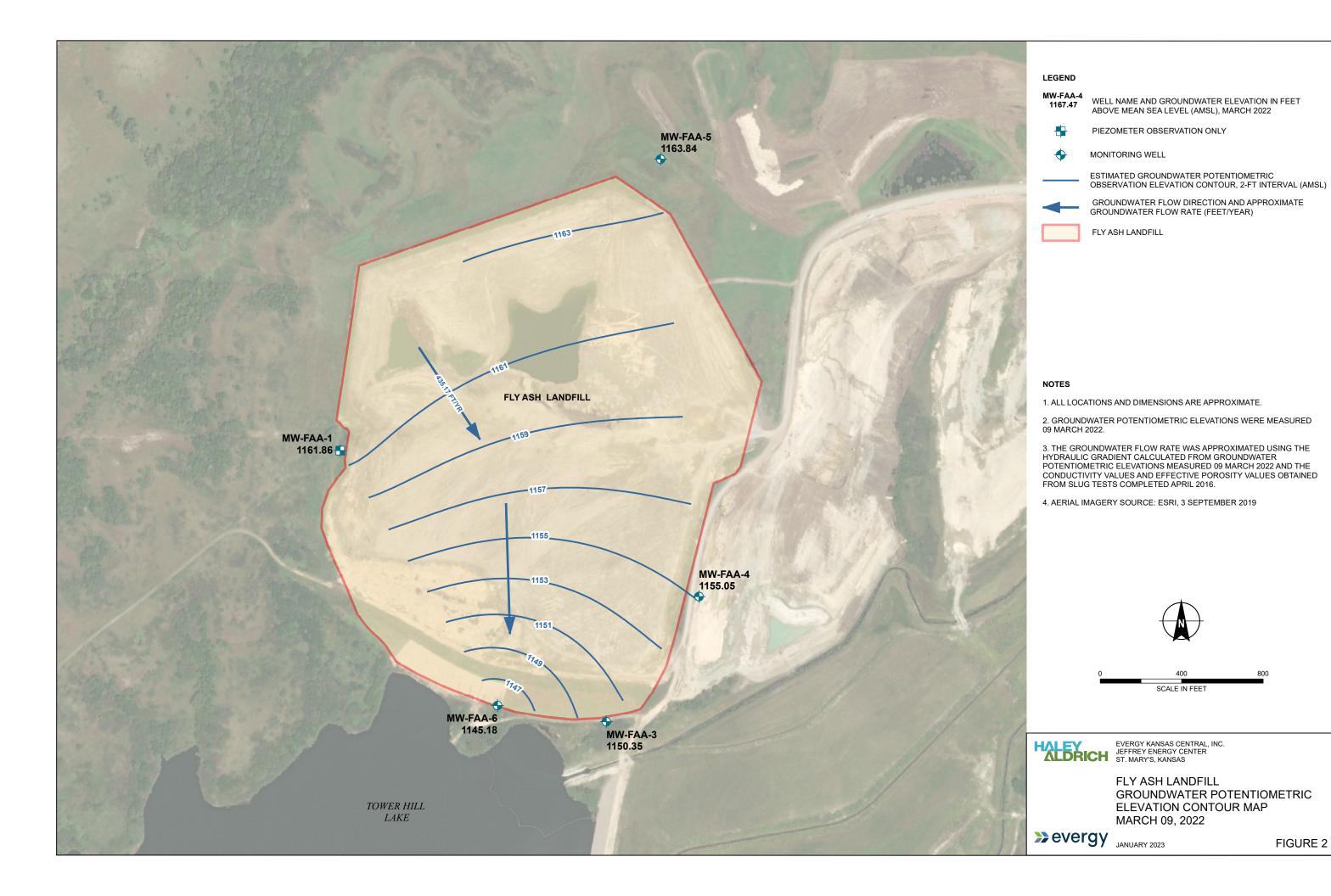


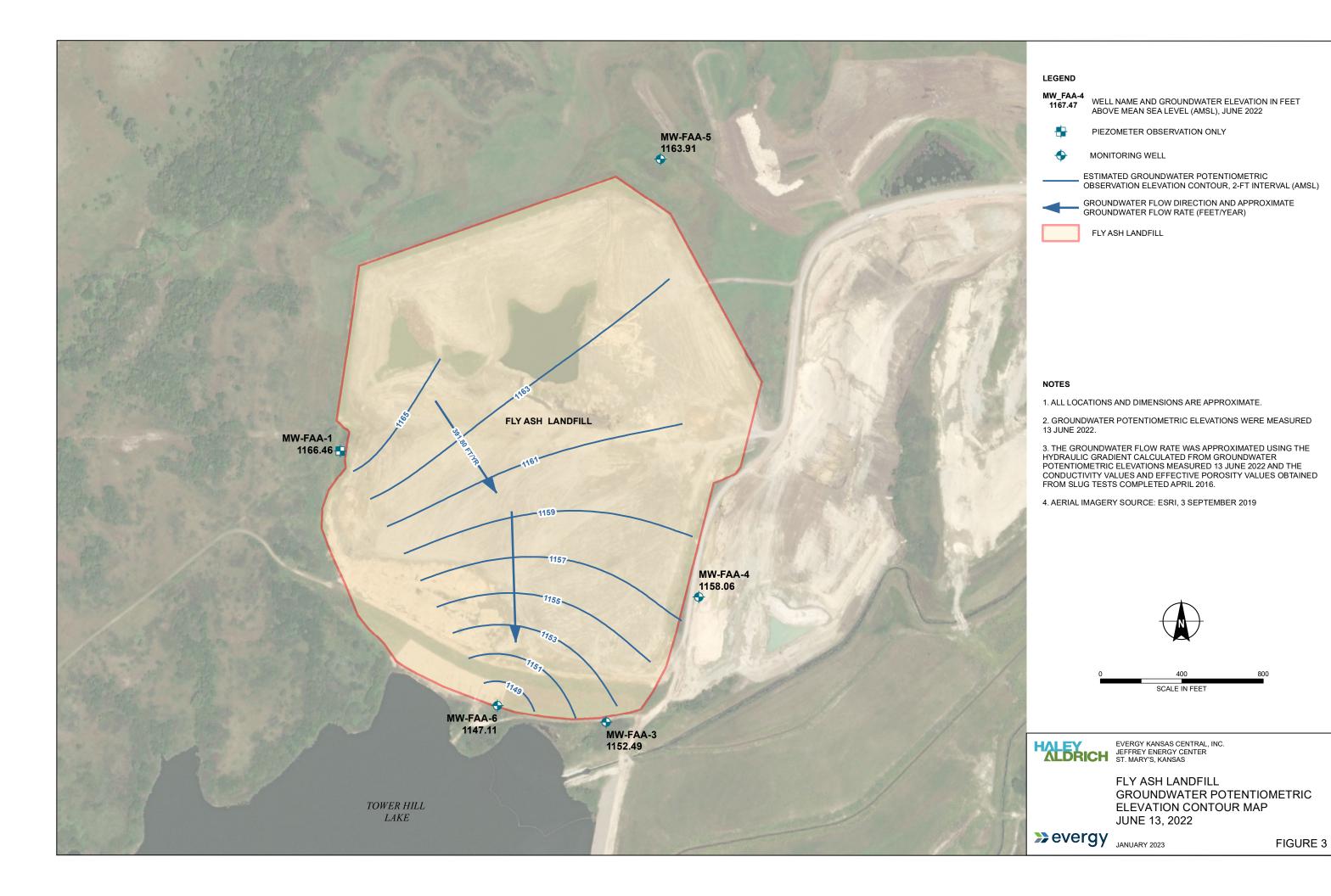
 $^{^{\}rm 1}$ Interwell background data collected from 08/19/2016 through 06/09/2021, unless otherwise noted.

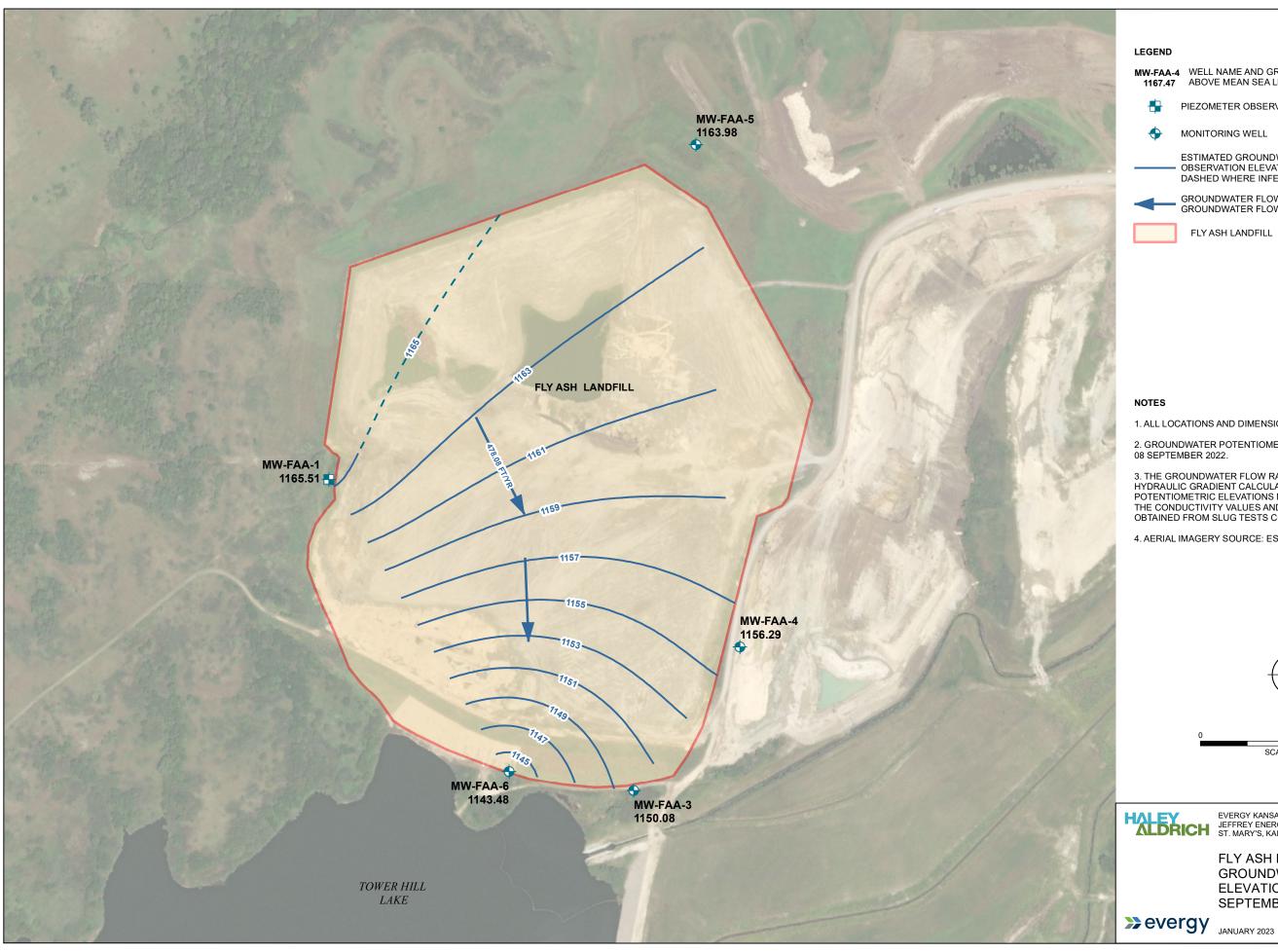
 $^{^{2}}$ Intrawell background data collected from 08/19/2016 through 09/14/2020.

FIGURES









MW-FAA-4 WELL NAME AND GROUNDWATER ELEVATION IN FEET 1167.47 ABOVE MEAN SEA LEVEL (AMSL), SEPTEMBER 2022

PIEZOMETER OBSERVATION ONLY

ESTIMATED GROUNDWATER POTENTIOMETRIC OBSERVATION ELEVATION CONTOUR, 2-FT INTERVAL (AMSL), DASHED WHERE INFERRED

GROUNDWATER FLOW DIRECTION AND APPROXIMATE GROUNDWATER FLOW RATE (FEET/YEAR)

FLY ASH LANDFILL

- 1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
- 2. GROUNDWATER POTENTIOMETRIC ELEVATIONS WERE MEASURED 08 SEPTEMBER 2022.
- 3. THE GROUNDWATER FLOW RATE WAS APPROXIMATED USING THE HYDRAULIC GRADIENT CALCULATED FROM GROUNDWATER POTENTIOMETRIC ELEVATIONS MEASURED 08 SEPTEMBER 2022 AND THE CONDUCTIVITY VALUES AND EFFECTIVE POROSITY VALUES OBTAINED FROM SLUG TESTS COMPLETED APRIL 2016.
- 4. AERIAL IMAGERY SOURCE: ESRI, 3 SEPTEMBER 2019







EVERGY KANSAS CENTRAL, INC.
JEFFREY ENERGY CENTER
ST. MARY'S, KANSAS

FLY ASH LANDFILL GROUNDWATER POTENTIOMETRIC **ELEVATION CONTOUR MAP SEPTEMBER 08, 2022**



FIGURE 4

ATTACHMENT 1 Statistical Analyses

ATTACHMENT 1-1 September 2021 Semi-Annual Groundwater Assessment Monitoring Data Statistical Evaluation



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

TECHNICAL MEMORANDUM

January 31, 2023 File No. 129778-035

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., Senior Associate – Senior Hydrogeologist

SUBJECT: September 2021 Semi-Annual Groundwater Assessment Monitoring Data

Statistical Evaluation

Completed January 18, 2022

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 2021** semi-annual assessment monitoring groundwater sampling event for the Jeffrey Energy Center (JEC) Fly Ash Landfill (FAL). This semi-annual assessment monitoring groundwater sampling event was completed on **September 14, 2021**. All laboratory results were received and validated on **December 10, 2021**.

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 statistically significant levels (SSL) above the groundwater protection standard (GWPS) consistent with the requirements of the Rule. GWPSs 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 residuals (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

Evergy Kansas Central, Inc. January 31, 2023 Page 2

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

STATISTICAL EVALUATION

Either an interwell or intrawell evaluation was used to determine SSIs. 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 its own historical data. Because the CCR unit has transitioned into assessment monitoring, no statistical evaluations were conducted on Appendix III (detection monitoring) semi-annual 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 2021** 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.



Evergy Kansas Central, Inc. January 31, 2023 Page 3

BACKGROUND DISTRIBUTIONS

The groundwater analytical results for each sampling event from the background sample location (MW-FAA-5 for interwell evaluation) were combined 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. Per the document, *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 **June 2021** for **interwell evaluation**. Background concentrations were updated through **September 2020** for **intrawell evaluation**.

RESULTS OF APPENDIX IV DOWNGRADIENT STATISTICAL COMPARISONS

The sample concentrations from the downgradient wells for each of the detected Appendix IV constituents from the **September 2021** semi-annual 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. 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 on groundwater sampling data collected in September 2021, no SSLs above GWPS occurred at the JEC FAL.**

Tables:

Table I – Summary of Semi-Annual Assessment Groundwater Monitoring Statistical Evaluation



TABLE

TABLE I

SUMMARY OF SEMI-ANNUAL ASSESSMENT GROUNDWATER MONITORING STATISTICAL EVALUATION

SEPTEMBER 2021 SAMPLING EVENT JEFFREY ENERGY CENTER FLY ASH LANDFILL

ST. MARYS, KANSAS

										MCL Co	omparison						Interv	ell Analysis	Intrawell A	Analysis	Groundwater Protection	on 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 2021 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
				n							CCR Appendi	x-IV: Arsenic	, Total (mg/	(L)								
MW-FAA-5	10/19	47%	0.001-0.005	0.0035	1.351E-06	0.001162	0.7331	0.01	mg/L	0	0	No	No	Stable	Non-parametric	< 0.0050	0.0035				0.010	
MW-FAA-3	3/19	84%	0.001-0.001	0.0011	1.027E-09	0.00003205	0.03207	0.01	mg/L	0	0	Yes	No	NT	Non-parametric	< 0.0010		No				No
MW-FAA-4	0/19	100%	0.0005-0.001		1.316E-08	0.0001147	0.1178	0.01	mg/L	0	0	NA	NA	NA	NA	< 0.0010		No				No
MW-FAA-6	19/19	0%	-	0.0086	1.917E-06	0.001385	0.2438	0.01	mg/L	0	0	No	No	Stable	Non-parametric	0.0052		Yes				No
				n							CCR Appendi	x-IV: Barium	, Total (mg/									
MW-FAA-5	4/19	79%	0.005-0.01	0.013	6.531E-06	0.002555	0.3928	2	mg/L	0	0	No	No	NT	Non-parametric	< 0.0050	0.013				2	
MW-FAA-3	19/19	0%	-	0.047	0.00002777	0.005269	0.1652	2	mg/L	0	0	Yes	No	Decreasing	Normal	0.032		Yes				No
MW-FAA-4	19/19	0%	-	0.053	6.263E-06	0.002503	0.05053	2	mg/L	0	0	No	No	Stable	Normal	0.046		Yes				No
MW-FAA-6	19/19	0%	-	0.067	0.0003124	0.01767	0.3914	2	mg/L	0	0	No	No	Decreasing	Non-parametric	0.033		Yes				No
											CCR Append	ix-IV: Cobalt	, Total (mg/	L)								
MW-FAA-5	14/19	26%	0.001-0.005	0.0056	2.364E-06	0.001537	0.6114	0.006	mg/L	0	0	No	No	Increase	Normal	< 0.0050	0.00498				0.006	
MW-FAA-3	2/19	89%	0.001-0.001	0.00058	2.023E-08	0.0001422	0.1493	0.006	mg/L	0	0	No	No	NT	Non-parametric	< 0.0010		No				No
MW-FAA-4	6/19	68%	0.0005-0.001	0.0027	2.904E-07	0.0005388	0.4284	0.006	mg/L	0	0	Yes	No	Increase	NA	0.0022		No				No
MW-FAA-6	18/19	5%	0.001-0.001	0.0021	1.039E-07	0.0003224	0.2291	0.006	mg/L	0	0	No	No	Stable	Normal	0.0017		No				No
											CCR Apper	ndix-IV: Fluo	ride (mg/L)									
MW-FAA-5	19/20	5%	0.2-0.2	1.6	0.09524	0.3086	0.3877	4	mg/L	0	0	Yes	No	Stable	Normal	0.71	1.363				4.0	
MW-FAA-3	18/20	10%	0.2-0.2	0.44	0.004098	0.06401	0.1949	4	mg/L	0	0	No	No	Increase	Normal	0.35		No				No
MW-FAA-4	17/20	15%	0.2-0.2	0.45	0.005573	0.07465	0.2222	4	mg/L	0	0	Yes	No	Increase	Normal	0.38		No				No
MW-FAA-6	20/20	0%	-	1.2	0.0343	0.1852	0.2253	4	mg/L	0	0	No	No	Stable	Normal	0.67		No				No
											CCR Appendi	x-IV: Lithium	, Total (mg/	'L)								
MW-FAA-5	19/19	0%	-	0.16	0.0007929	0.02816	0.2319	0.04	mg/L	19	0	No	No	Stable	Normal	0.15	0.170				0.170	
MW-FAA-3	16/19	16%	0.01-0.02	0.023	0.00001267	0.00356	0.2324	0.04	mg/L	0	0	No	No	Stable	Normal	0.012		No				No
MW-FAA-4	17/19	11%	0.01-0.02	0.021	0.00001004	0.003168	0.1929	0.04	mg/L	0	0	No	No	Stable	Normal	0.017		No				No
MW-FAA-6	13/19	32%	0.01-0.02	0.016	6.433E-06	0.002536	0.2095	0.04	mg/L	0	0	Yes	No	Stable	Non-parametric	0.012		No				No
											CCR Appendix-I\	/: Molybden	um, Total (n	ng/L)								
MW-FAA-5	19/19	0%	-	0.067	0.0002184	0.01478	0.4573	0.1	mg/L	0	0	No	No	Stable	Normal	0.023	0.0597				0.100	
MW-FAA-3	19/19	0%	-	0.014	6.647E-06	0.002578	0.2683	0.1	mg/L	0	0	No	No	Stable	Normal	0.0090		No				No
MW-FAA-4	19/19	0%	-	0.0094	4.919E-06	0.002218	0.4576	0.1	mg/L	0	0	No	No	Increase	Increasing	0.0084		No				No
MW-FAA-6	19/19	0%	-	0.59	0.01665	0.129	0.3043	0.1	mg/L	19	0	No	No	Stable	Normal	0.26		Yes	0.901	No	0.901	No
				n .			1				CCR Appendix-I											
MW-FAA-5	17/19	11%	0.587-1.26	2.43	0.2406	0.4905	0.3669	5	pCi/L	0	0	No	No	Stable	Normal	1.79	2.191				5	
MW-FAA-3	14/19	26%	0.344-0.857	1.792	0.196	0.4427	0.7033	5	pCi/L	0	0	Yes	No	Stable	Normal	0.000		No				No
MW-FAA-4	14/19	26%	0.22-0.929	1.54	0.1566	0.3957	0.5544	5	pCi/L	0	0	No	No	Stable	Normal	0.731		No				No
MW-FAA-6	13/19	32%	0.0926-0.58	1.43	0.1472	0.3837	0.64	5	pCi/L	0	0	No	No	Stable	Normal	0.570		No				No
											CCR Appendix	-IV: Seleniun	n, Total (mg	/L)								
MW-FAA-5	7/19	63%	0.0005-0.005	0.0039	0.00000154	0.001241	0.7082	0.05	mg/L	0	0	No	No	NT	Normal	< 0.0050	0.0039				0.05	
MW-FAA-3	0/19	100%	8.6E-05-0.001		5.445E-08	0.0002334	0.2521	0.05	mg/L	0	0	NA	NA	NA	NA	< 0.0010		No				No
MW-FAA-4	7/19	63%	0.001-0.001	0.0019	6.029E-08	0.0002455	0.2201	0.05	mg/L	0	0	Yes	No	Stable	Non-parametric	< 0.0010		No				No
MW-FAA-6	7/19	63%	0.0005-0.001	0.014	0.00000898	0.002997	1.622	0.05	mg/L	0	0	Yes	No	Stable	Non-parametric	< 0.0010		No				No

Notes and Abbreviations:

GWPS = Groundwater Protection Standarc

MCL = maximum contaminant leve

mg/L = milligrams per Liter

NA = not analyzea pCi/L = picoCuries per Liter

SSI = statistically significant increase

SSL = statistically significant leve

UTL = upper tolerance limits



¹ Based on background data collected from 08/19/2016 through 06/09/2021, unless otherwise notec

² Based on background data collected from 08/19/2016 through 09/14/202(
* Values obtained from U.S. Environmental Protection Agency Federal CCR Rule Title 40 Code of Federal Regulations (CFR) § 257.95(h)

CCR = coal combustion residuals

ATTACHMENT 1-2 March 2022 Semi-Annual Groundwater Assessment Monitoring Data Statistical Evaluation



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

TECHNICAL MEMORANDUM

January 31, 2023 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., Senior Associate – Senior Hydrogeologist

SUBJECT: March 2022 Semi-Annual Groundwater Assessment Monitoring Data

Statistical Evaluation
Completed July 18, 2022
Jeffrey Energy Center
Fly Ash Landfill

Pursuant to Code of Federal Regulations Title 40 (40 CFR) §§ 257.93 and 257.95 (Rule), this memorandum summarizes the statistical evaluation of the analytical results for the **March 2022** semi-annual assessment monitoring groundwater sampling event for the Jeffrey Energy Center (JEC) Fly Ash Landfill (FAL). This semi-annual assessment monitoring groundwater sampling event was completed on **March 9, 2022**. All laboratory results were received and validated on **April 27, 2022**.

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 statistically significant level (SSL) above the groundwater protection standard (GWPS) consistent with the requirements of the Rule. GWPSs 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 (UTLs), 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.

Evergy Kansas Central, Inc. January 31, 2023 Page 2

STATISTICAL EVALUATION

Either an interwell or intrawell evaluation was used to determine SSIs. 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 its own historical data. Because the CCR unit has transitioned into assessment monitoring, no statistical evaluations were conducted on Appendix III (detection monitoring) semi-annual 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 2022** sampling event was above the GWPS, the lower confidence limit (LCL) for the downgradient well constituent will be used to evaluate if an 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 combined 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. Per the document, *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 **June 2021** for **interwell evaluation**. Background concentrations were updated through **September 2020** for **intrawell evaluation**.



Evergy Kansas Central, Inc. January 31, 2023 Page 3

RESULTS OF APPENDIX IV DOWNGRADIENT STATISTICAL COMPARISONS

Sample concentrations from the downgradient wells for each of the detected Appendix IV constituents from the March 2022 semi-annual 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. 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 2022, no SSLs above GWPS occurred at the JEC FAL.

Attachments:

Table I – Summary of Semi-Annual Assessment Groundwater Monitoring Statistical Evaluation



TABLE

TABLE I

SUMMARY OF SEMI-ANNUAL ASSESSMENT GROUNDWATER MONITORING STATISTICAL EVALUATION

MARCH 2022 SAMPLING EVENT JEFFREY ENERGY CENTER FLY ASH LANDFILL

ST. MARYS, KANSAS

										MCL C	omparison				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 2022 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
				П						ı			nic, Total (m	<u>. </u>			1					
MW-FAA-5	11/20	45%	0.001-0.005	0.0035	1.291E-06	0.001136	0.728	0.01	mg/L	0	0	No	No	Stable	Non-parametric	0.0011	0.0035				0.010	
MW-FAA-3	3/20	85%	0.001-0.001	0.0011	9.734E-10	0.0000312	0.03122	0.01	mg/L	0	0	Yes	No	NT	Non-parametric	< 0.0010		No				No
MW-FAA-4	0/20	100%	0.0005-0.001		1.25E-08	0.0001118	0.1147	0.01	mg/L	0	0	NA	NA	NA	NA	< 0.0010		No				No
MW-FAA-6	20/20	0%	-	0.01	0.00000275	0.001658	0.2813	0.01	mg/L	0	0	No	No	Stable	Non-parametric	0.010		Yes				No
N 4) A / E A A E	1/20	000/	0.005.0.04	0.013	0.0000000	0.00354	0.2004	2	/1				um, Total (m	<u>. </u>	Non a succession	1 .0.0050	0.042					
MW-FAA-5	4/20	80%	0.005-0.01	0.013	0.0000063	0.00251	0.3904	2	mg/L	0	0	No	No	NT	Non-parametric	< 0.0050	0.013	V			2	NI -
MW-FAA-3	20/20	0%	-	0.047	0.00002631	0.005129	0.1608	2	mg/L	0	0	Yes	No	Decreasing	Normal	0.032		Yes				No
MW-FAA-4	20/20	0%	-	0.053	5.947E-06	0.002439	0.04927	2	mg/L	0	0	No	No	Stable	Normal	0.049		Yes				No
MW-FAA-6	20/20	0%	-	0.067	0.0003106	0.01763	0.3979	2	mg/L	0	0	No	No	Decreasing	Non-parametric	0.028		Yes				No
N4147 EA A E	45/20	250/	0.004.0.005	0.0056	2 2205 00	0.004530	0.6350	0.005	/1		1		alt, Total (mg		No	0.0044	0.00400				0.000	
MW-FAA-5	15/20	25%	0.001-0.005	0.0056	2.339E-06	0.001529	0.6258	0.006	mg/L	0	0	No	No	Increase	Normal	0.0011	0.00498	N1-			0.006	NI -
MW-FAA-3	2/20	90%	0.001-0.001	0.00058	1.928E-08	0.0001388	0.1454	0.006	mg/L	0	0	No	No	NT	Non-parametric	< 0.0010		No				No
MW-FAA-4 MW-FAA-6	7/20	65%	0.0005-0.001	0.0027	2.761E-07	0.0005254	0.4154	0.006	mg/L	0	0	Yes	No	Increase Stable	NA Named	0.0014		No				No
IVIVV-FAA-6	19/20	5%	0.001-0.001	0.0021	9.903E-08	0.0003147	0.2245	0.006	mg/L	0	ŭ	No	No uoride (mg/l		Normal	0.0013		No				No
MW-FAA-5	20/21	5%	0.2-0.2	1.6	0.00585	0.3006	0.2060	4	ma/I	0				-) Stable	Normal	0.46	1.363		1		1.0	
MW-FAA-3	20/21 18/21	14%	0.2-0.2	0.44	0.09585 0.004679	0.3096 0.0684	0.3969 0.2122	4	mg/L mg/L	0	0	Yes No	No No	Increase	Normal	< 0.20	1.505	No			4.0	No
MW-FAA-4	17/21	19%	0.2-0.2	0.44	0.004079	0.0084	0.2122	4	mg/L	0	0	Yes	No	Increase	Normal	< 0.20		No				No
MW-FAA-6	21/21	0%	0.2-0.2	1.2	0.000173	0.07838	0.2383	4	mg/L	0	0	No	No	Stable	Normal	0.56		No				No
IVIV-I AA-0	21/21	070	_	1.2	0.03383	0.1894	0.2339	4	IIIg/ L		<u> </u>	l	um, Total (m		Normal	0.30		110				110
MW-FAA-5	20/20	0%		0.16	0.0007577	0.02753	0.2278	0.04	mg/L	20	0	No	No	Stable	Normal	0.11	0.170				0.170	
MW-FAA-3	16/20	20%	0.01-0.03	0.023	0.00007377	0.02733	0.2276	0.04	mg/L	0	0	No	No	Stable	Normal	< 0.030	0.170	No			0.170	No
MW-FAA-4	17/20	15%	0.01-0.03	0.023	0.00002273	0.004774	0.2574	0.04	mg/L	0	0	No	No	Stable	Normal	< 0.030		No				No
MW-FAA-6	13/20	35%	0.01-0.03	0.016	0.00001373	0.004702	0.3617	0.04	mg/L	0	0	Yes	No	Stable	Non-parametric	< 0.030		No				No
IVIV-I AA-0	13/20	3370	0.01-0.03	0.010	0.00002211	0.004702	0.3017	0.04	IIIg/L		CCR Appendix	<u> </u>			Non-parametric	< 0.030		140				110
MW-FAA-5	20/20	0%	<u> </u>	0.067	0.0002172	0.01474	0.4663	0.1	mg/L	0	0	No No	No No	Stable	Normal	0.018	0.0597				0.100	
MW-FAA-3	20/20	0%	-	0.014	6.461E-06	0.002542	0.267	0.1	mg/L	0	0	No	No	Stable	Normal	0.018	5.5557	No			0.100	No
MW-FAA-4	20/20	0%	-	0.0094	5.096E-06	0.002342	0.452	0.1	mg/L	0	0	No	No	Increase	Increasing	0.0078		No				No
MW-FAA-6	20/20	0%	_	0.59	0.01828	0.1352	0.3276	0.1	mg/L	20	0	No	No	Stable	Normal	0.20		Yes	0.901	No	0.901	No
	25,25	-,-		1						<u> </u>	CCR Appendi					5.20	-	. 23	13302		3.301	
MW-FAA-5	18/20	10%	0.587-1.26	2.43	0.2743	0.5237	0.4064	5	pCi/L	0	0	No No	No	Stable	Normal	< 0.374	2.191				5	
MW-FAA-3	15/20	25%	0.344-0.857	1.792	0.1858	0.431	0.6863	5	pCi/L	0	0	Yes	No	Stable	Normal	0.600		No				No
MW-FAA-4	14/20	30%	0.22-0.929	1.54	0.1488	0.3857	0.537	5	pCi/L	0	0	No	No	Stable	Normal	0.802		No				No
MW-FAA-6	13/20	35%	0.0926-0.58	1.43	0.1522	0.3902	0.6795	5	pCi/L	0	0	No	No	Stable	Normal	0.0939		No				No
	,							-	P: = 7		CCR Append		ium, Total (n					-				-
MW-FAA-5	7/20	65%	0.0005-0.005	0.0039	1.488E-06	0.00122	0.7112	0.05	mg/L	0	0	No	No	NT	Normal	< 0.0010	0.0039				0.05	
MW-FAA-3	0/20	100%	8.6E-05-0.001		5.186E-08	0.0002277	0.2451	0.05	mg/L	0	0	NA	NA	NA	NA	< 0.0010		No				No
MW-FAA-4	7/20	65%	0.001-0.001	0.0019	5.779E-08	0.0002404	0.2166	0.05	mg/L	0	0	Yes	No	Stable	Non-parametric	< 0.0010		No				No
MW-FAA-6	7/20	65%	0.0005-0.001	0.014	8.544E-06	0.002923	1.619	0.05	mg/L	0	0	Yes	No	Stable	Non-parametric	< 0.0010		No				No
Notes and Abbrevi			1	U	I.	l		Į.	<u>-</u>	1	1	L			· · · · · · · · · · · · · · · · · · ·							

Notes and Abbreviations:

GWPS = Groundwater Protection Standarc

MCL = maximum contaminant leve

mg/L = milligrams per Liter

NA = not analyzea

pCi/L = picoCuries per Liter

SSI = statistically significant increase

SSL = statistically significant leve

UTL = upper tolerance limits



 $^{^{1}}$ Based on background data collected from 08/19/2016 through 06/09/2021, unless otherwise noted

Based on background data collected from 08/19/2016 through 09/14/202(
* 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

ATTACHMENT 2 Laboratory Analytical Reports

ATTACHMENT 2-1
March 2022 Semi-Annual Sampling Event
Laboratory Analytical Report





March 31, 2022

Melissa Michels Evergy, Inc. 818 Kansas Avenue Topeka, KS 66612

RE: Project: MW-FAA-5

Pace Project No.: 60394832

Dear Melissa Michels:

Enclosed are the analytical results for sample(s) received by the laboratory on March 11, 2022. 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 Greensburg

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

Sincerely,

Allee Spiller

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

Enclosures

cc: Laura Hines, Evergy, Inc.
Jake Humphrey, Evergy, Inc.
Samantha Kaney, Haley & Aldrich
Jared Morrison, Evergy, Inc.
Danielle Oberbroeckling, Haley & Aldrich
Melanie Satanek, Haley & Aldrich, Inc.
JD Schlegel, Evergy, Inc.
Jacob Will, Evergy Kansas Central, Jeffrey Energy Center







CERTIFICATIONS

Project: MW-FAA-5 Pace Project No.: 60394832

Pace Analytical Services Pennsylvania

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

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590 Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA Colorado Certification #: PA01547 Connecticut Certification #: PH-0694

Delaware Certification EPA Region 4 DW Rad

Florida/TNI Certification #: E87683 Georgia Certification #: C040 Florida: Cert E871149 SEKS WET

Guam Certification Hawaii Certification Idaho Certification Illinois Certification Indiana Certification Iowa Certification #: 391

Kansas/TNI Certification #: E-10358 Kentucky Certification #: KY90133 KY WW Permit #: KY0098221 KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012 Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020 Maryland Certification #: 308

Massachusetts Certification #: M-PA1457 Michigan/PADEP Certification #: 9991 Missouri Certification #: 235

Montana Certification #: Cert0082 Nebraska Certification #: NE-OS-29-14 Nevada Certification #: PA014572018-1 New Hampshire/TNI Certification #: 297617 New Jersey/TNI Certification #: PA051 New Mexico Certification #: PA01457

New York/TNI Certification #: 10888 North Carolina Certification #: 42706 North Dakota Certification #: R-190 Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010 Pennsylvania/TNI Certification #: 65-00282 Puerto Rico Certification #: PA01457 Rhode Island Certification #: 65-00282

South Dakota Certification
Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad Wyoming Certification #: 8TMS-L

Pace Analytical Services Kansas

9608 Loiret Boulevard, Lenexa, KS 66219

Missouri Inorganic Drinking Water Certification #: 10090

Arkansas Drinking Water

Arkansas Certification #: 20-020-0

Arkansas Drinking Water

Illinois Certification #: 2000302021-3

Iowa Certification #: 118

Kansas/NELAP Certification #: E-10116 Louisiana Certification #: 03055 Nevada Certification #: KS000212020-2 Oklahoma Certification #: 9205/9935 Florida: Cert E871149 SEKS WET Texas Certification #: T104704407-19-12 Utah Certification #: KS000212019-9

Illinois Certification #: 004592

Kansas Field Laboratory Accreditation: # E-92587 Missouri SEKS Micro Certification: 10070



SAMPLE SUMMARY

Project: MW-FAA-5 Pace Project No.: 60394832

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60394832001	MW-FAA-5-030922	Water	03/09/22 13:35	03/11/22 14:21



SAMPLE ANALYTE COUNT

Project: MW-FAA-5 Pace Project No.: 60394832

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60394832001	MW-FAA-5-030922	EPA 200.7	JLH	6	PASI-K
		EPA 6010	JLH	1	PASI-K
		EPA 200.8	JGP	7	PASI-K
		EPA 245.1	MRV	1	PASI-K
		EPA 903.1	RPS	1	PASI-PA
		EPA 904.0	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C	JDS	1	PASI-K
		SM 4500-H+B	KB	1	PASI-K
		EPA 300.0	CRN2, KB	3	PASI-K

PASI-K = Pace Analytical Services - Kansas City PASI-PA = Pace Analytical Services - Greensburg



PROJECT NARRATIVE

Project: MW-FAA-5 Pace Project No.: 60394832

Method: EPA 200.7

Description: 200.7 Metals, Total

Client: Evergy Kansas Central, Inc.

Date: March 31, 2022

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: 775828

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60394834001,60394852001

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

- MS (Lab ID: 3096624)
 - Calcium
- MS (Lab ID: 3096626)
 - Calcium
- MSD (Lab ID: 3096625)
 - Calcium

Additional Comments:



PROJECT NARRATIVE

Project: MW-FAA-5 Pace Project No.: 60394832

Method: EPA 6010
Description: 6010 MET ICP

Client: Evergy Kansas Central, Inc.

Date: March 31, 2022

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.



PROJECT NARRATIVE

Project: MW-FAA-5 Pace Project No.: 60394832

Method: EPA 200.8

Description: 200.8 MET ICPMS

Client: Evergy Kansas Central, Inc.

Date: March 31, 2022

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.



PROJECT NARRATIVE

Project: MW-FAA-5 Pace Project No.: 60394832

Method: EPA 245.1 Description: 245.1 Mercury

Client: Evergy Kansas Central, Inc.

Date: March 31, 2022

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.



PROJECT NARRATIVE

Project: MW-FAA-5 Pace Project No.: 60394832

Method: EPA 903.1

Description: 903.1 Radium 226

Client: Evergy Kansas Central, Inc.

Date: March 31, 2022

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.



PROJECT NARRATIVE

Project: MW-FAA-5 Pace Project No.: 60394832

Method: EPA 904.0

Description: 904.0 Radium 228

Client: Evergy Kansas Central, Inc.

Date: March 31, 2022

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.



PROJECT NARRATIVE

Project: MW-FAA-5 Pace Project No.: 60394832

Method:Total Radium CalculationDescription:Total Radium 228+226Client:Evergy Kansas Central, Inc.

Date: March 31, 2022

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.



PROJECT NARRATIVE

Project: MW-FAA-5 Pace Project No.: 60394832

Method: SM 2540C

Description: 2540C Total Dissolved Solids **Client:** Evergy Kansas Central, Inc.

Date: March 31, 2022

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.



PROJECT NARRATIVE

Project: MW-FAA-5 Pace Project No.: 60394832

Method: SM 4500-H+B

Description: 4500H+ pH, Electrometric **Client:** Evergy Kansas Central, Inc.

Date: March 31, 2022

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.

• MW-FAA-5-030922 (Lab ID: 60394832001)

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.



PROJECT NARRATIVE

Project: MW-FAA-5 Pace Project No.: 60394832

Method: EPA 300.0

Description: 300.0 IC Anions 28 Days **Client:** Evergy Kansas Central, Inc.

Date: March 31, 2022

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.

QC Batch: 776040

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60394775001,60394995003

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

- MS (Lab ID: 3097312)
 - ChlorideSulfate
- MSD (Lab ID: 3097313)
 - Chloride
 - Fluoride

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.



ANALYTICAL RESULTS

Project: MW-FAA-5 Pace Project No.: 60394832

Date: 03/31/2022 04:21 PM

Sample: MW-FAA-5-030922	Lab ID: 603	94832001	Collected: 03/09/2	22 13:35	Received: 03	/11/22 14:21 I	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
200.7 Metals, Total	Analytical Met	hod: EPA 20	00.7 Preparation Met	hod: EP	A 200.7			
	Pace Analytica	al Services -	Kansas City					
Barium, Total Recoverable	<0.0050	mg/L	0.0050	1	03/16/22 14:38	03/18/22 21:11	7440-39-3	
Beryllium, Total Recoverable	<0.0010	mg/L	0.0010	1		03/18/22 21:11		
Boron, Total Recoverable	1.7	mg/L	0.10	1	03/16/22 14:38	03/18/22 21:11	7440-42-8	
Calcium, Total Recoverable	560	mg/L	2.0	10	03/16/22 14:38	03/18/22 20:13	7440-70-2	
Chromium, Total Recoverable	<0.0050	mg/L	0.0050	1	03/16/22 14:38	03/18/22 21:11	7440-47-3	
Lead, Total Recoverable	<0.010	mg/L	0.010	1	03/16/22 14:38	03/18/22 21:11	7439-92-1	
6010 MET ICP	Analytical Met	hod: EPA 60	010 Preparation Met	nod: EPA	A 3010			
	Pace Analytica	al Services -	Kansas City					
Lithium, Total Recoverable	0.11	mg/L	0.10	10	03/23/22 10:09	03/24/22 18:45	7439-93-2	
200.8 MET ICPMS	Analytical Met	hod: EPA 20	00.8 Preparation Met	hod: EP	A 200.8			
	Pace Analytica	al Services -	Kansas City					
Antimony, Total Recoverable	<0.0010	mg/L	0.0010	1	03/17/22 09:40	03/19/22 12:39	7440-36-0	
Arsenic, Total Recoverable	0.0011	mg/L	0.0010	1	03/17/22 09:40	03/19/22 12:39	7440-38-2	
Cadmium, Total Recoverable	<0.00050	mg/L	0.00050	1	03/17/22 09:40	03/19/22 12:39	7440-43-9	
Cobalt, Total Recoverable	0.0011	mg/L	0.0010	1	03/17/22 09:40	03/19/22 12:39	7440-48-4	
Molybdenum, Total Recoverable	0.018	mg/L	0.0010	1	03/17/22 09:40	03/19/22 12:39	7439-98-7	
Selenium, Total Recoverable	<0.0010	mg/L	0.0010	1	03/17/22 09:40	03/19/22 12:39	7782-49-2	
Thallium, Total Recoverable	<0.0010	mg/L	0.0010	1	03/17/22 09:40	03/19/22 12:39	7440-28-0	
245.1 Mercury	Analytical Met	hod: EPA 24	15.1 Preparation Met	hod: EP	A 245.1			
•	Pace Analytica	al Services -	Kansas City					
Mercury	<0.00020	mg/L	0.00020	1	03/18/22 17:04	03/21/22 11:48	7439-97-6	
2540C Total Dissolved Solids	Analytical Met	hod: SM 25	40C					
	Pace Analytica	al Services -	Kansas City					
Total Dissolved Solids	2570	mg/L	66.7	1		03/16/22 15:13		
4500H+ pH, Electrometric	Analytical Met	hod: SM 45	00-H+B					
	Pace Analytica	al Services -	Kansas City					
pH at 25 Degrees C	6.9	Std. Units	0.10	1		03/17/22 09:34		H6
300.0 IC Anions 28 Days	Analytical Met	hod: EPA 30	0.00					
•	Pace Analytica	al Services -	Kansas City					
Chloride	87.7	mg/L	20.0	20		03/19/22 17:46	16887-00-6	
Fluoride	0.46	mg/L	0.20	1		03/19/22 17:40		



Parameter

Date: 03/31/2022 04:21 PM

Mercury

Units

mg/L

QUALITY CONTROL DATA

Project: MW-FAA-5 Pace Project No.: 60394832 QC Batch: 776474 Analysis Method: EPA 245.1 QC Batch Method: EPA 245.1 Analysis Description: 245.1 Mercury Laboratory: Pace Analytical Services - Kansas City Associated Lab Samples: 60394832001 METHOD BLANK: Matrix: Water Associated Lab Samples: 60394832001 Blank Reporting Qualifiers Parameter Units Result Limit Analyzed Mercury < 0.00020 0.00020 03/21/22 11:09 mg/L LABORATORY CONTROL SAMPLE: 3098664 Spike LCS LCS % Rec Conc. Result % Rec Limits Qualifiers Parameter Units Mercury 0.005 0.0047 95 85-115 mg/L MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3098665 3098666 MSD MS 60394834001 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Conc. Result Result % Rec % Rec **RPD** RPD Qual Result Conc. Limits 20 Mercury mg/L < 0.00020 0.005 0.005 0.0040 0.0039 79 79 70-130 0 MATRIX SPIKE SAMPLE: 3098667 MS MS % Rec 60394832001 Spike

Result

<0.00020

Conc.

0.005

Result

0.0045

% Rec

89

Limits

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

Qualifiers



QUALITY CONTROL DATA

Project: MW-FAA-5 Pace Project No.: 60394832

QC Batch: 775828

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: 60394832001

METHOD BLANK: 3096622

Date: 03/31/2022 04:21 PM

Matrix: Water

Associated Lab Samples: 60394832001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Barium	mg/L	<0.0050	0.0050	03/18/22 19:14	
Beryllium	mg/L	< 0.0010	0.0010	03/18/22 19:14	
Boron	mg/L	<0.10	0.10	03/21/22 12:42	
Calcium	mg/L	<0.20	0.20	03/18/22 19:14	
Chromium	mg/L	< 0.0050	0.0050	03/18/22 19:14	
Lead	mg/L	<0.010	0.010	03/18/22 19:14	

LABORATORY CONTROL SAMPLE:	3096623					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Barium	mg/L		1.0	103	85-115	
Beryllium	mg/L	1	1.0	101	85-115	
Boron	mg/L	1	0.97	97	85-115	
Calcium	mg/L	10	10.4	104	85-115	
Chromium	mg/L	1	0.99	99	85-115	
Lead	mg/L	1	1.0	105	85-115	

MATRIX SPIKE & MATRIX SF	PIKE DUPL	ICATE: 3096		3096625								
Parameter	Units	60394852001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.033	1	1	1.1	1.0	102	101	70-130	2	20	
Beryllium	mg/L	< 0.0010	1	1	1.0	1.0	103	102	70-130	1	20	
Boron	mg/L	0.38	1	1	1.4	1.4	98	98	70-130	1	20	
Calcium	mg/L	318	10	10	323	320	56	25	70-130	1	20	M1
Chromium	mg/L	0.0058	1	1	0.99	0.99	99	99	70-130	0	20	
Lead	mg/L	<0.010	1	1	1.0	1.0	101	101	70-130	0	20	

MATRIX SPIKE SAMPLE:	3096626						
		60394834001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits (Qualifiers
Barium	mg/L	0.036	1	1.1	105	70-130	
Beryllium	mg/L	< 0.0010	1	1.0	101	70-130	
Boron	mg/L	0.40	1	1.4	101	70-130	
Calcium	mg/L	207	10	220	132	70-130 M1	
Chromium	mg/L	< 0.0050	1	0.99	98	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.



QUALITY CONTROL DATA

Project: MW-FAA-5 Pace Project No.: 60394832

Date: 03/31/2022 04:21 PM

MATRIX SPIKE SAMPLE:	3096626						
		60394834001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Lead	mg/L	<0.010		1.1	105	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.



QUALITY CONTROL DATA

Project: MW-FAA-5 Pace Project No.: 60394832

QC Batch: 775918
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: 60394832001

METHOD BLANK: 3096897 Matrix: Water

Associated Lab Samples: 60394832001

Date: 03/31/2022 04:21 PM

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Antimony	mg/L	<0.0010	0.0010	03/19/22 11:26	
Arsenic	mg/L	< 0.0010	0.0010	03/19/22 11:26	
Cadmium	mg/L	< 0.00050	0.00050	03/19/22 11:26	
Cobalt	mg/L	< 0.0010	0.0010	03/19/22 11:26	
Molybdenum	mg/L	< 0.0010	0.0010	03/19/22 11:26	
Selenium	mg/L	< 0.0010	0.0010	03/19/22 11:26	
Thallium	mg/L	< 0.0010	0.0010	03/19/22 11:26	

LABORATORY CONTROL SAMPLE:	3096898					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Antimony	mg/L	0.04	0.040	101	85-115	
Arsenic	mg/L	0.04	0.040	101	85-115	
Cadmium	mg/L	0.04	0.042	104	85-115	
Cobalt	mg/L	0.04	0.041	103	85-115	
Molybdenum	mg/L	0.04	0.041	103	85-115	
Selenium	mg/L	0.04	0.040	101	85-115	
Thallium	mg/L	0.04	0.038	95	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3096899 3096900												
			MS	MSD								
	6	0394479004	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Antimony	mg/L	ND	0.04	0.04	0.035	0.035	86	88	70-130	2	20	
Arsenic	mg/L	ND	0.04	0.04	0.042	0.042	104	105	70-130	1	20	
Cadmium	mg/L	ND	0.04	0.04	0.035	0.036	88	89	70-130	2	20	
Cobalt	mg/L	2.4 ug/L	0.04	0.04	0.039	0.040	91	93	70-130	3	20	
Molybdenum	mg/L	ND	0.04	0.04	0.042	0.043	103	105	70-130	2	20	
Selenium	mg/L	ND	0.04	0.04	0.040	0.041	98	99	70-130	1	20	
Thallium	mg/L	ND	0.04	0.04	0.039	0.040	98	99	70-130	1	20	

MATRIX SPIKE SAMPLE:	3096901						
		60394835001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Antimony	mg/L	<0.0010	0.04	0.041	103	70-130	
Arsenic	mg/L	< 0.0010	0.04	0.039	97	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.



QUALITY CONTROL DATA

Project: MW-FAA-5 Pace Project No.: 60394832

Date: 03/31/2022 04:21 PM

MATRIX SPIKE SAMPLE:	3096901		0 "				
Parameter	Units	60394835001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cadmium	mg/L	<0.00050	0.04	0.034	85	70-130	
Cobalt	mg/L	< 0.0010	0.04	0.034	84	70-130	
Molybdenum	mg/L	0.0078	0.04	0.047	97	70-130	
Selenium	mg/L	< 0.0010	0.04	0.039	97	70-130	
Thallium	mg/L	< 0.0010	0.04	0.041	101	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.



Lithium

Date: 03/31/2022 04:21 PM

QUALITY CONTROL DATA

MW-FAA-5 Project: Pace Project No.: 60394832 QC Batch: 777222 Analysis Method: EPA 6010 QC Batch Method: EPA 3010 Analysis Description: 6010 MET Laboratory: Pace Analytical Services - Kansas City Associated Lab Samples: 60394832001 METHOD BLANK: 3101209 Matrix: Water Associated Lab Samples: 60394832001 Blank Reporting Qualifiers Parameter Units Result Limit Analyzed Lithium < 0.010 0.010 03/24/22 18:01 mg/L LABORATORY CONTROL SAMPLE: 3101210 Spike LCS LCS % Rec Conc. Result % Rec Limits Qualifiers Parameter Units Lithium mg/L 0.82 82 80-120 MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3101211 3101212 MSD MS 60394712002 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Conc. Conc. Result Result % Rec % Rec Limits **RPD** RPD Qual Result

0.85

0.84

85

84

75-125

ND

mg/L

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

20

2



Total Dissolved Solids

Date: 03/31/2022 04:21 PM

QUALITY CONTROL DATA

Project: MW-FAA-5 Pace Project No.: 60394832 QC Batch: 775867 Analysis Method: SM 2540C QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids Laboratory: Pace Analytical Services - Kansas City Associated Lab Samples: 60394832001 METHOD BLANK: Matrix: Water Associated Lab Samples: 60394832001 Blank Reporting Qualifiers Parameter Units Result Limit Analyzed Total Dissolved Solids <5.0 5.0 03/16/22 15:12 mg/L LABORATORY CONTROL SAMPLE: 3096793 Spike LCS LCS % Rec Conc. Result % Rec Limits Qualifiers Parameter Units **Total Dissolved Solids** mg/L 1000 1000 100 80-120 SAMPLE DUPLICATE: 3096794 60394821003 Dup Max Parameter Units Result Result **RPD RPD** Qualifiers 1040 **Total Dissolved Solids** mg/L 1050 0 10 SAMPLE DUPLICATE: 3096795 60394850001 Dup Max RPD RPD Parameter Units Result Result Qualifiers

545

mg/L

532

2

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.



QUALITY CONTROL DATA

Project: MW-FAA-5

Pace Project No.:

60394832

QC Batch: QC Batch Method: 775990

SM 4500-H+B

Analysis Method:

SM 4500-H+B

Analysis Description:

4500H+B pH

Laboratory:

Pace Analytical Services - Kansas City

Associated Lab Samples: 60394832001

SAMPLE DUPLICATE: 3097134

Date: 03/31/2022 04:21 PM

60394768001 Dup Max Parameter Units Result RPD RPD Qualifiers Result 7.1 pH at 25 Degrees C 7.3 3 5 H6 Std. Units

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.



QUALITY CONTROL DATA

Project: MW-FAA-5 Pace Project No.: 60394832

QC Batch: 776040 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: 60394832001

METHOD BLANK: 3100183

Matrix: Water

Associated Lab Samples: 60394832001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<1.0	1.0	03/21/22 07:11	
Fluoride	mg/L	<0.20	0.20	03/21/22 07:11	
Sulfate	ma/L	<1.0	1.0	03/21/22 07:11	

METHOD BLANK: 3100356

Matrix: Water

Associated Lab Samples: 60394832001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<1.0	1.0	03/22/22 01:24	
Fluoride	mg/L	<0.20	0.20	03/22/22 01:24	
Sulfate	mg/L	<1.0	1.0	03/22/22 01:24	

METHOD BLANK: 3100388

Matrix: Water

Associated Lab Samples: 60394832001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<1.0	1.0	03/19/22 13:48	
Fluoride	mg/L	<0.20	0.20	03/19/22 13:48	
Sulfate	mg/L	<1.0	1.0	03/19/22 13:48	

LABORATORY CONTROL SAMPLE: 3100184

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L		4.5	91	90-110	
Fluoride	mg/L	2.5	2.4	96	90-110	
Sulfate	mg/L	5	4.9	97	90-110	

LABORATORY CONTROL SAMPLE: 3100357

Date: 03/31/2022 04:21 PM

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L		4.9	99	90-110	
Fluoride	mg/L	2.5	2.5	100	90-110	
Sulfate	mg/L	5	5.1	101	90-110	

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.

80-120

80-120

80-120

86

86

109



QUALITY CONTROL DATA

Project: MW-FAA-5 Pace Project No.: 60394832

Chloride

Fluoride

Sulfate

Date: 03/31/2022 04:21 PM

LABORATORY CONTROL SAMPLE:

3100389

mg/L

mg/L

mg/L

Parameter		Units	Spike Conc.	LC Res		LCS % Rec	% Ro Limi		Qualifiers			
Chloride		mg/L		 5	4.9	98	3 9	90-110		_		
Fluoride		mg/L	2	.5	2.3	92	2 9	90-110				
Sulfate		mg/L		5	5.2	103	3 9	90-110				
MATRIX SPIKE & MATRIX SF	PIKE DUPLI	CATE: 3097	312		3097313	}						
			MS	MSD								
	(60394775001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Chloride	mg/L	182	5	5	185	185	65	66	80-120	0	15	M1
Fluoride	mg/L	ND	2.5	2.5	3.0	3.1	118	122	80-120	3	15	M1
Sulfate	mg/L	6.3	5	5	12.3	12.3	121	120	80-120	0	15	M1
MATRIX SPIKE SAMPLE:	3	097314										
			60394	1995003	Spike	MS		MS	% Red	;		
Parameter		Units	Re	esult	Conc.	Result	%	Rec	Limits		Qual	ifiers

134

ND

2490

250

2.5

2000

347

2.1

4670

SAMPLE DUPLICATE: 3097311						
		60394775001	Dup		Max	
Parameter	Units	Result	Result	RPD	RPD	Qualifiers
Chloride	mg/L	182	182	0	15	
Fluoride	mg/L	ND	< 0.20		15	
Sulfate	mg/L	6.3	6.7	7	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.



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MW-FAA-5 Pace Project No.: 60394832

Sample: MW-FAA-5-030922 PWS:	Lab ID: 60394 Site ID:	832001 Collected: 03/09/22 13:35 Sample Type:	Received:	03/11/22 14:21	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical S	Gervices - Greensburg				
Radium-226	EPA 903.1	-0.0543 ± 0.416 (0.875) C:NA T:91%	pCi/L	03/31/22 13:31	13982-63-3	
	Pace Analytical S	Services - Greensburg				
Radium-228	EPA 904.0	0.374 ± 0.347 (0.708) C:67% T:92%	pCi/L	03/30/22 11:43	15262-20-1	
	Pace Analytical S	Services - Greensburg				
Total Radium	Total Radium Calculation	0.374 ± 0.763 (1.58)	pCi/L	03/31/22 17:10	7440-14-4	



QUALITY CONTROL - RADIOCHEMISTRY

Project: MW-FAA-5 Pace Project No.:

60394832

QC Batch: 490875

EPA 903.1

Analysis Method:

EPA 903.1

Analysis Description:

903.1 Radium-226

Laboratory:

Pace Analytical Services - Greensburg

Associated Lab Samples: 60394832001

METHOD BLANK: 2374606

Matrix: Water

Associated Lab Samples: 60394832001

Parameter

Act ± Unc (MDC) Carr Trac

Units

Analyzed

Qualifiers

Radium-226

QC Batch Method:

0.104 ± 0.398 (0.733) C:NA T:95%

pCi/L

03/31/22 12:49

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.



QUALITY CONTROL - RADIOCHEMISTRY

Project:

MW-FAA-5

Pace Project No.:

60394832

QC Batch: QC Batch Method: 490877

EPA 904.0

Analysis Method:

EPA 904.0

Analysis Description:

904.0 Radium 228

Laboratory:

Pace Analytical Services - Greensburg

Associated Lab Samples: 60394832001

METHOD BLANK: 2374610

Matrix: Water

Associated Lab Samples:

60394832001

Parameter

Act ± Unc (MDC) Carr Trac

Units

Analyzed

Qualifiers

Radium-228

 $0.365 \pm 0.256 \quad (0.481) \text{ C:}75\% \text{ T:}91\%$

pCi/L

03/30/22 11:38

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.



QUALIFIERS

Project: MW-FAA-5 Pace Project No.: 60394832

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.

ANALYTE QUALIFIERS

Date: 03/31/2022 04:21 PM

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.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MW-FAA-5 Pace Project No.: 60394832

Date: 03/31/2022 04:21 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60394832001	MW-FAA-5-030922	EPA 200.7	775828	EPA 200.7	776011
60394832001	MW-FAA-5-030922	EPA 3010	777222	EPA 6010	777267
60394832001	MW-FAA-5-030922	EPA 200.8	775918	EPA 200.8	776167
60394832001	MW-FAA-5-030922	EPA 245.1	776474	EPA 245.1	776520
60394832001	MW-FAA-5-030922	EPA 903.1	490875		
60394832001	MW-FAA-5-030922	EPA 904.0	490877		
60394832001	MW-FAA-5-030922	Total Radium Calculation	494356		
60394832001	MW-FAA-5-030922	SM 2540C	775867		
60394832001	MW-FAA-5-030922	SM 4500-H+B	775990		
60394832001	MW-FAA-5-030922	EPA 300.0	776040		

W0#:60394832

Pace AMERICA SERVE

DC#_Title: ENV-FRM-LENE-0009_Sample Cc

Revision: 2	ective Date: 01/12/2022	Issued By: Lenexa	
Client Name: Eucrgy Ks (entral)			_
Courier: FedEx □ UPS □ VIA □ Clay □	PEX □ ECI □ Pace	e □ Xroads □ Clien x □ Other □	
Tracking #: Pa	ce Shipping Label Used? Y	′es □ No 🌠	
Custody Seal on Cooler/Box Present: Yes □ No 🗹	Seals intact: Yes □ N	No.Z	
Packing Material: Bubble Wrap ☐ Bubble Bags	□ Foam □	Nope □ Other □	
Thermometer Used: 7299 Type o	of Ice: We Blue None	8	
Cooler Temperature (°C): As-read 4.2 Corr. Fac	tor - 0.7 Corrected	Y-6 Date and initials of p examining contents:	erson
Temperature should be above freezing to 6°C	:	75.73	22
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 ZNo □N/A		
Rush Turn Around Time requested:	□Yes ZNo □N/A		
Sufficient volume:	Yes No N/A		
Correct containers used:	ÓYes □No □N/A		
Pace containers used:	Yes □No □N/A		
Containers intact:	ZYes □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:	□Yes ØNo □N/A		
Containers requiring pH preservation in compliance?		sample IDs, volumes, lot #'s of preservat time added.	ive and the
HNO ₃ , H ₂ SO ₄ , HCI<2; NaOH>9 Sulfide, NaOH>10 Cyanide) Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO) LOT	eria:	une added.	
Cyanide water sample checks:	, ,		
ead acetate strip turns dark? (Record only)	□Yes □No		
Potassium iodide test strip turns blue/purple? (Preserve)	□Yes □No		
Frip Blank present:	□Yes □No ☑N/A		
Headspace in VOA vials (>6mm):	□Yes □N6 □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 I	Field Data Required? Y / N	
Person Contacted: Date/	Time:		
Comments/ Resolution:			
Project Manager Review:	Date:		



CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at https://info.pacetty.com/

Section A		Section B					•		Sec	tion (3			Orialia	0113 10	dila c	1119	03.11	11.0.1	ave	aus,	20111	muu	(a/ba	15-50	anua	ru-te	ms.p	ar.			
	Client Information:	Required P	roject	Informati	on:					oice Ir		atior	1:													- 1	-	1876	92	10230		
Company Address:		Report To:	Sam	antha Kar	ey, Danielle	Oberbroe	ckling		Attention: Accounts Payable										Ц	Pag	e:	1	Of	1	_							
	400 E Van Buren St Phoenix, AZ 85004	Copy To:	Melis	ssa Micha	els, Laura F	lines, Jake	Humphre	y	Cor	npany					s Cent	tral. In	a .			_	-	_	┥									
	skaney@haleyaldrich.com	D 0							Add	ress:		ee S	ection	Α			_					_	7		=		R	eoula	ton And	ency		_
Phone:	(602)760-2441 Fax:	Purchase Or Project Nam			-				Pace Quote: Pace Project Manager: alice spiller@pacelabs.com.									Regulatory Agency Groundwater														
	d Due Date:	Project #:	в.	MW-FAA	-5			_				_		alice	spiller.	@рас	elabs	.com	١,					State / Location								
		, , , , , , , , , , , , , , , , , , , ,					_		Pac	e Prof	116 #:	96	357			_	_		_	_				_					KS			
	MATRIX Drinking W Water Waste Wat Product Soll/Solid Oil	WT P SL OL	(see valid codes to left)	(G=GRAB C=COMP)	COL	LECTED	ND	T COLLECTION	RS		T	Pres	erval	ives		Test Y/N	/ 200.8/ 245.1/6010* z	N	Solids (TDS) z	N	T	N	N	ered	(Y/N)			e (Y/N)			c Pri	2
ITEM#	One Character per box. Wipe (A-Z, 0-8 /, -) Air Sample ids must be unique Tissue	WP AR OT TS	MATRIX CODE	SAMPLE TYPE	E TIME	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	EON H	NaOH	Na2S203	Methanol	Analyses Test	200,7 / 200.8/ 2	300.0 Anions CI,F.S	Total Dissolved Solids (TDS	표	Radium 226	Radium 228	Total Radium					Residual Chlorine (Y/N)	رون	394	180	
1	MW-FAA-5-030922		WT	G -		3/9/22	13:35		7	3		4	П	П		П	l,	Ţ		u.	, I					T	1	T				
2						USIZZ	10,00				\top	+		\Box		1	Х	Х	Х	X	X	×	X		+	\dagger	+	1				4
3									Г	П	1	1	T	H		1	П			\dashv	+	†	+	\forall	$^{+}$	+	+	1				1
4								T		П	\top	1	T	\Box	\top	1	Н		H	\forall	\dagger	+	1	+	+	ŧ	t	1				-
5			П						П	T	\top	\dagger	Ť	П	\top	1	Н		Ħ	7	+	+	+	+	+	+	+	1				-
6									П		1	†	T	Ħ	+	1				+	+	+	+	+	+	+	+					\dashv
7								T			1	\dagger	T	П	\top	1	П		1	7	+	+	$^{+}$	+	+	+	t	1			-	-
8			П						П	7	+	T	T	H	\top	1	П		\exists	7	\dagger	+	+	+	†	t	H	1				-
9									П			\top		П		1	П		7	7	\dagger	\dagger	\dagger	+	\dagger	$^{+}$		1				\dashv
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12																1		П	1	1	T	†	\top	+	†	1	\dagger	1				\exists
	ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION DATE								TIME	T	,	/	AGC	PTED B	Y/AF	FILLAT	пом			1	D/	ATE	T	TIA	WE	T	_	SAMPLE	CONDITIO	122	\dashv
200.7/200.8 3010 Li	Be,B,Ca,Sb,As,Ba,Cd,Cr.Co,Pb.Mo,Se,Tl, Hg		Jas	son R. Fra	nks / SCS		3/10/20)22	_1	5:00		9	D		en	PR	15	7			7	7/	6		15	ખ	5	1.0	Y	1	7	
																								1								
- P			-		SAMPI	R NAME	AND SIGI	UATI	IRE				-	-			-	-	_	-	L				_		╀	_			_	
Page 32 of 36					PR	NT Name	of SAMPI	.ER:	INE.	4	1	n	2 K	0-7	le	Jas	on R.		nks Sign	ed:			3/1	10/20	22	_	- U	O LI	Received on Ice (Y/N)	Custody Seeled Cooler	Samples Intact	(Y/N)

Client:	Evergy KS	central	Profile # 9657 - 1

Site:_______Notes_SI-38RADand SI-38RADa2 on BPIN

																						N. T									
COC Line Item	Matrix	VG9H	DG9H	DG90	VG9U	DG9N	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	wgpu	BP1U	BP2U	врзи	BP1N	BP3N	BP3F	BP3S	врзс	BP3Z	WPDU	ZPLC	Other	
1																			ī		2	2	2			ш.			N	-	_
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11																															
12																															

Container Codes

		Glass			Plastic		Misc.
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar	BP1C	1L NAOH plastic	71	Wipe/Swab
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar	BP1N	1L HNO3 plastic	SP5T	120mL Coliform Na Thiosulfate
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar	BP1S	1L H2SO4 plastic	ZPLC	Ziploc Bag
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide	BP1U	1L unpreserved plastic	AF	Air Filter
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass	BP1Z	1L NaOH, Zn Acetate	С	Air Cassettes
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass	BP2C	500mL NAOH plastic	R	Terracore Kit
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass	BP2N	500mL HNO3 plastic	U	Summa Can
/G9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass	BP2S	500mL H2SO4 plastic		
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic	T	
√G9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Acetate		
3G1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass	BP3C	250mL NaOH plastic	1	Matrix
3G1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic - field filtered	WT	Water
3G3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic	SL	Solid
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass	BP3U	250mL unpreserved plastic	NAL	Non-aqueous Liquid
NGDU	16oz clear soil jar	AG4U	125mL unpres amber glass	BP3S	250mL H2SO4 plastic	OL	OIL
		AG5U	100mL unpres amber glass	BP3Z	250mL NaOH, Zn Acetate	WP	Wipe
				BP4U	125mL unpreserved plastic	DW	Drinking Water

BP4N

BP4S

WPDU

125mL HNO3 plastic

125mL H2SO4 plastic

16oz unpresserved plstic

Work Order Number:

60394832

Int	erna	ıl Transfer Cl	nain c	of C	ustod	y	_														- /		2		/°
					Samples	Pre-L	ogged i	into eCC	C.				Origi eded		KS × Y	es/		No			/-		ace	Analyti www.pacelabs	
		: 60394832 Worl	corder N		MW-FA						Owi	ner R	eceiv	ved	Date	e:	3/11/2				Req	ueste	ed By	3/25/20	22
Repo				S	ubcontrac	t To							3709473890				Req	ueste	d Ana	lysis					
Pace 9608 Lene	Loiret I xa, KS				1638 F Suites Green	Roseyto 2,3, & 4 sburg, F	al Pittsb wn Roa 4 PA 1560 50-5600	d ¯ 01					•	Radium 226	Radium 228										
									100/10	Prese	rved Co	ntaine	ers	R	R										
ltem	Sample	ا	Sample Type	Collect Date/T		Lab ID		Matrix	HNO3															LAB USE O	NLY
1	MW-FAA-	5-030922	PS	3/9/202	22 13:35	603948	332001	Water	2					Х	Х			1						(201	
2			1						1	1	1														
3																									
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5	eda retemblicat	rolletyde ydelen ferskingsplangt perform og en og er og		f	a.g. of a rapide recognists		uni Patente Nationale entalen		4111111447	Anna di wata a		7017		10.000.00		<u></u>		decilerous	Was Wassey.		3000000 - 12000000	47465666	100220000000000000000000000000000000000		11.00.00.00.00
Trans	efere	Rejeasęd By		ln	ate/Time	Re	ceived B	lv				Ina	te/Tim	e		(497.931)				Co	mmen	ts			
1		Valo 1	<u> </u>	(z)	5/1 f/ss /	800	Pth	pre	الريكا	Ó	3	1/5/		101	, 		,	'*INC	LUDE	E QC	SHEE	TS**			
3								_																	
Coo	ler Ter	nperature on Receip	<u>t</u>	°C	Cus	tody S	Seal (Y	<u> </u>	l		Re	eive	d on	lce	Υ	or	(N)			Sa	mple	s Inta	ct (Y	or N	
		o maintain client confi in of custody is consid	-				-	_	-				_		rv.	_	t be pro						nent.		

30472836

Pittsburgh La	ib Sample Condi	tion (Jpoi	n Re	eceipt				
Pace Analytical	Client Name:	Pa	<u>ee</u>	KS	3	F	Project #	3047	1836
Courier: Fed Ex	UPS USPS Client		Comm	ercial	Pace Oth	er		Labe	TOH
•	8760 3538						•	LIMS Login	- 7
	/Box Present: Zyes		10	Seals	s intact: ye	es 🗍		<u> </u>	,
Thermometer Used	nA	Туре			-	L.			
Cooler Temperature	Observed Temp		٠c		ection Factor:		°C Final	Temp:	- · c
Temp should be above freez			•				-		
					pH paper Lot#			nitials of per	son examining
Comments:		Yes	No	N/A	10028	//	Contents	3.15	12
Chain of Custody Presen	t;				1.				
Chain of Custody Filled C	Out:	/			2.				
Chain of Custody Relinqu	ıished:	/			3.				
Sampler Name & Signatu	ire on COC:				4.				
Sample Labels match CC	OC:				5.				
-Includes date/time/ID	Matrix: W	T		_					
Samples Arrived within H	old Time:	/			6.				
Short Hold Time Analys	is (<72hr remaining):				7.				
Rush Turn Around Time	Requested:		/		8.				
Sufficient Volume:		/			9.				
Correct Containers Used:		/			10.				
-Pace Containers Use	d:	1]				
Containers Intact:		/			11.				
Orthophosphate field filte	red			1	12.`				
Hex Cr Aqueous sample				1	13.			***	
Organic Samples chec				1	14.				
Filtered volume received				/	15.				
All containers have been che	cked for preservation.	/			16. PH	<u>/)</u>			
exceptions: VOA, colifor Non-aqueous matrix	m, TOC, O&G, Phenolics,	Radon	1	•		70/			
All containers meet metho	od preservation				Initial when	n il	Date/time of		
requirements.				<u> </u>	completed	SH	preservation		
					preservative				
Headspace in VOA Vials	(>6mm):				17.				
Trip Blank Present:					18.				
Trip Blank Custody Seals							r		
Rad Samples Screened	< 0.5 mrem/hr				Initial when completed:	BH	Date ろいん	Survey SN:	Meter 1563
Client Notification/ Reso									
					Time:		Contac	ted B <u>y:</u>	
Comments/ Resolution:									
					<u> </u>				

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

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

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

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/ /	Pace l	Anal	vtics	a/ `
	acci	TI ICU	y ucc	
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Pace Greensburg Lab -Sample Container Count

/ Client _.				10		. <i>V</i> .			. Ì	. -	7-									le Nu	mber		774	14				·	
Site	603	948	13 sL	/Eu	era	y Ka	U1545	5 C	enm	\mathcal{U}_{j} .	I no	'							Note	s _				·					
Sample Line Item	Matrix	AG1H	AG1S	AG1T	AG2U	AG3S	AG3U	AG5U	AG5T	BG10	BG2U	BP1N	BP1U	BP2S	BP2U	врзс	BP3N	BP3S	врзи	DG9S	GCUB	У СЭН	VG9T	VG9U	VOAK	WGFU	WGKU	ZPLC	
1	WT		:									ಭ																	
2	<u></u>					:	,																						
3			:			Page 18																							
4			:																										
5			:																										
6																													
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9		:	:			1:														W	O#	: 3	3U 2	} / (28	<u> 30</u>			
10		İ	!																	PM	CF:	i de la companya de l		Due	Date	. 03	/25/2	2	
11																				CL:	ENT	: PA	CE_6(LE	(S				
12																													

Container Codes

	Glas	SS	
GJN	1 Gallon Jug with HNO3	DG9S	40mL amber VOA vial H2SO4
AG5U	100mL amber glass unprserved	VG9U	40mL clear VOA vial
AG5T	100mL amber glass Na Thiosulfate	VG9T:	40mL clear VOA vial Na Thiosul
GJN	1 Gallon Jug	VG9H	40mL clear VOA vial HCl
AG1S	1L amber glass H2SO4	JGFU	4oz amber wide jar
AG1H	1L amber glass HCl	WGFU	4oz wide jar unpreserved
AG1T	L amber glass Na Thiosulfate	BG2U	500mL clear glass unpreserved
BG1U	1L clear glass unpreserved	AG2U	500mL amber glass unpreserved
AG3S	250mL amber glass H2SO4	WGKU	8oz wide jar unpreserved
AG3U	250mL amber glass unpreserved		

	P
GCUB ¹	1 Gallon Cubitainer
12GN	1/2 Gallon Cubitainer
SP5T	120mL Coliform Na Thiosulfate
BP1N	1L plastic HNO3
BP1U	1L plastic unpreserved
BP3S	250mL plastic H2SO4
BP3N	250mL plastic HNO3
BP3U	250mL plastic unpreserved
BP3C	250ml plastic NAOH
BP2\$	500mL plastic H2SO4
BP2U	500mL plastic unpreserved

la	astic /	Misc.	
	EZI	5g Encore	
	VOAK	Kit for Volatile Solid	
	l	Wipe/Swab	
	ZPLC	Ziploc Bag	

WT	Water
SL	Solid
OL	Non-aqueous liquid
WP	Wipe

Page 36 of 36

Sic 3/3/12022

Face Analytical www.pacelabs.com

Quality Control Sample Performance Assessment

Test: Ra-226
Analyst: RPS
Date: 3/25/2022
Batch ID: 65631
Matrix: DW

 Method Blank Assessment
 MB Sample ID
 2374606

 MB concentration:
 0.104

 MB Counting Uncertainty:
 0.397

 MB MDC:
 0.733

 MB Numerical Performance Indicator:
 0.51

 MB Status vs Numerical Indicator:
 N/A

 MB Status vs .MDC:
 Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS65631	LCSD65631
Count Date:	3/31/2022	3/31/2022
Spike I.D.:	21-040	21-040
Spike Concentration (pCi/mL):	32.433	32.433
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.651	0.660
Target Conc. (pCi/L, g, F):	4.980	4.917
Uncertainty (Calculated):	0.234	0.231
Result (pCi/L, g, F):		3.632
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	1.036	0.868
Numerical Performance Indicator:	-0.65	-2.80
Percent Recovery:	92.98%	73.87%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:		135%
Lower % Recovery Limits:	73%	73%

Duplicate Sample Assessment		
Sample I.D.: Duplicate Sample I.D.: Sample Result (pCi/L, g, F): Sample Result Counting Uncertainty (pCi/L, g, F): Sample Duplicate Result (pCi/L, g, F): Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): Are sample and/or duplicate results below RL? Duplicate Numerical Performance Indicator: (Based on the LCS/LCSD Percent Recoveries) Duplicate RPD: Duplicate Status vs Numerical Indicator:	LCSD65631 4.630 1.036 3.632 0.868 NO 1.447 22.91%	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Status vs RPD:		
% RPD Limit:	32%	

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:		
Sample I.D.		200
Sample MS I.D.	100	
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:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D. Sample MS I.D. Sample MS I.D. Sample MSD 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:

CH313172

Pace Analytical www.pacelabs.com

Quality Control Sample Performance Assessment

Test: Ra-228
Analyst: JSM
Date: 3/26/2022
Worklist: 65632
Matrix: W1

 Method Blank Assessment
 MB Sample ID
 2374610

 MB concentration:
 0.365

 MB 2 Sigma CSU:
 0.256

 MB MDC:
 0.481

 MB Numerical Performance Indicator:
 2.80

 MB Status vs Numerical Indicator:
 Warning

 MB Status vs. MDC:
 Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Υ
	LCS65632	LCSD65632
Count Date:	3/30/2022	3/30/2022
Spike I.D.:	22-016	22-016
Decay Corrected Spike Concentration (pCi/mL):	36.290	36.290
Volume Used (mL):		0.10
Aliquot Volume (L, g, F):		0.807
Target Conc. (pCi/L, g, F):	4.452	4.496
Uncertainty (Calculated):	0.218	0.220
Result (pCi/L, g, F):		4.692
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):		1.023
Numerical Performance Indicator:	1.03	0.37
Percent Recovery:	113.05%	104.37%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:		135%
Lower % Recovery Limits:	60%	60%

Duplicate Sample Assessment		,
Sample I.D.: Duplicate Sample I.D. Sample Result (pCi/L, g, F): Sample Result 2 Sigma CSU (pCi/L, g, F): Sample Duplicate Result (pCi/L, g, F): Sample Duplicate Result opci/L, g, F): Are sample and/or duplicate results below RL?	1.088 4.692	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Numerical Performance Indicator: (Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	0.448 7.99%	
Duplicate Status vs Numerical Indicator: Duplicate Status vs RPD: % RPD Limit	Pass Pass 36%	

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:		
Sample I.D.		
Sample MS I.D.	11 4.5	
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:		
MONIOS LONG. 70 NECOVERY LINIES.		

Ī	Matrix Spike/Matrix Spike Duplicate Sample Assessment	
	Sample I.D. Sample MS 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:

M3/31/22

97112133



April 27, 2022

Melissa Michels Evergy, Inc. 818 Kansas Avenue Topeka, KS 66612

RE: Project: JEC FAL CCR

Pace Project No.: 60394835

Dear Melissa Michels:

Enclosed are the analytical results for sample(s) received by the laboratory on March 10, 2022. 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 Greensburg

REVISED 4/27/22 to include radchem QC sheets.

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

Sincerely,

Alice Spiller

alice.spiller@pacelabs.com

alice Spiller

(913)599-5665

PM Lab Management

Enclosures

cc: Laura Hines, Evergy, Inc.
Jake Humphrey, Evergy, Inc.
Samantha Kaney, Haley & Aldrich
Jared Morrison, Evergy, Inc.
Danielle Oberbroeckling, Haley & Aldrich
Melanie Satanek, Haley & Aldrich, Inc.
JD Schlegel, Evergy, Inc.
Jacob Will, Evergy Kansas Central, Jeffrey Energy Center







CERTIFICATIONS

Project: JEC FAL CCR Pace Project No.: 60394835

Pace Analytical Services Pennsylvania

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

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590 Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA Colorado Certification #: PA01547 Connecticut Certification #: PH-0694

Delaware Certification EPA Region 4 DW Rad

Florida/TNI Certification #: E87683 Georgia Certification #: C040 Florida: Cert E871149 SEKS WET

Guam Certification Hawaii Certification Idaho Certification Illinois Certification Indiana Certification Iowa Certification #: 391

Kansas/TNI Certification #: E-10358 Kentucky Certification #: KY90133 KY WW Permit #: KY0098221 KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012 Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020 Maryland Certification #: 308

Massachusetts Certification #: M-PA1457 Michigan/PADEP Certification #: 9991 Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457

New Mexico Certification #: PA01457 New York/TNI Certification #: 10888 North Carolina Certification #: 42706 North Dakota Certification #: R-190 Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010 Pennsylvania/TNI Certification #: 65-00282 Puerto Rico Certification #: PA01457 Rhode Island Certification #: 65-00282

South Dakota Certification
Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad Wyoming Certification #: 8TMS-L

Pace Analytical Services Kansas

9608 Loiret Boulevard, Lenexa, KS 66219

Missouri Inorganic Drinking Water Certification #: 10090

Arkansas Drinking Water

Arkansas Certification #: 20-020-0

Arkansas Drinking Water

Illinois Certification #: 2000302021-3

Iowa Certification #: 118

Kansas/NELAP Certification #: E-10116 Louisiana Certification #: 03055 Nevada Certification #: KS000212020-2 Oklahoma Certification #: 9205/9935 Florida: Cert E871149 SEKS WET Texas Certification #: T104704407-21-15 Utah Certification #: KS000212019-9 Illinois Certification #: 004592

Kansas Field Laboratory Accreditation: # E-92587 Missouri SEKS Micro Certification: 10070



SAMPLE SUMMARY

Project: JEC FAL CCR
Pace Project No.: 60394835

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60394835001	FAA-3-030922	Water	03/09/22 15:20	03/10/22 15:00
60394835002	FAA-4-030922	Water	03/09/22 14:25	03/10/22 15:00
60394835003	FAA-6-030922	Water	03/09/22 16:15	03/10/22 15:00
60394835004	DUP-FAA-030922	Water	03/09/22 16:15	03/10/22 15:00



SAMPLE ANALYTE COUNT

Project: JEC FAL CCR
Pace Project No.: 60394835

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60394835001	FAA-3-030922	EPA 200.7	JLH	3	PASI-K
		EPA 6010	JLH	1	PASI-K
		EPA 200.8	JGP	4	PASI-K
		EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C	JDS	1	PASI-K
		SM 4500-H+B	KB	1	PASI-K
		EPA 300.0	CRN2, KB	3	PASI-K
60394835002	FAA-4-030922	EPA 200.7	JLH	3	PASI-K
		EPA 6010	JLH	1	PASI-K
		EPA 200.8	JGP	4	PASI-K
		EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C	JDS	1	PASI-K
		SM 4500-H+B	KB	1	PASI-K
		EPA 300.0	CRN2, KB	3	PASI-K
60394835003	FAA-6-030922	EPA 200.7	JLH	3	PASI-K
		EPA 6010	JLH	1	PASI-K
		EPA 200.8	JGP	4	PASI-K
		EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C	JDS	1	PASI-K
		SM 4500-H+B	KB	1	PASI-K
		EPA 300.0	CRN2, KB	3	PASI-K
60394835004	DUP-FAA-030922	EPA 200.7	JLH	3	PASI-K
		EPA 6010	JLH	1	PASI-K
		EPA 200.8	JGP	4	PASI-K
		EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C	JDS	1	PASI-K
		SM 4500-H+B	SK	1	PASI-K
		EPA 300.0	CRN2, KB	3	PASI-K





SAMPLE ANALYTE COUNT

Project: JEC FAL CCR
Pace Project No.: 60394835

Lab ID Sample ID Method Analysts Reported Laboratory

PASI-K = Pace Analytical Services - Kansas City PASI-PA = Pace Analytical Services - Greensburg



PROJECT NARRATIVE

Project: JEC FAL CCR Pace Project No.: 60394835

Method: EPA 200.7

Description: 200.7 Metals, Total

Client: Evergy Kansas Central, Inc.

Date: April 27, 2022

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: 775829

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60394835001,60394850006

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

- MSD (Lab ID: 3096632)
 - Calcium



PROJECT NARRATIVE

Project: JEC FAL CCR Pace Project No.: 60394835

Method: EPA 6010
Description: 6010 MET ICP

Client: Evergy Kansas Central, Inc.

Date: April 27, 2022

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.



PROJECT NARRATIVE

Project: JEC FAL CCR Pace Project No.: 60394835

Method: EPA 200.8

Description: 200.8 MET ICPMS

Client: Evergy Kansas Central, Inc.

Date: April 27, 2022

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.



PROJECT NARRATIVE

Project: JEC FAL CCR
Pace Project No.: 60394835

Method: EPA 903.1

Description: 903.1 Radium 226

Client: Evergy Kansas Central, Inc.

Date: April 27, 2022

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.



PROJECT NARRATIVE

Project: JEC FAL CCR
Pace Project No.: 60394835

Method: EPA 904.0

Description: 904.0 Radium 228

Client: Evergy Kansas Central, Inc.

Date: April 27, 2022

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.



PROJECT NARRATIVE

Project: JEC FAL CCR
Pace Project No.: 60394835

Method:Total Radium CalculationDescription:Total Radium 228+226Client:Evergy Kansas Central, Inc.

Date: April 27, 2022

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:



PROJECT NARRATIVE

Project: JEC FAL CCR
Pace Project No.: 60394835

Method: SM 2540C

Description: 2540C Total Dissolved Solids **Client:** Evergy Kansas Central, Inc.

Date: April 27, 2022

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.



PROJECT NARRATIVE

Project: JEC FAL CCR
Pace Project No.: 60394835

Method: SM 4500-H+B

Description: 4500H+ pH, Electrometric **Client:** Evergy Kansas Central, Inc.

Date: April 27, 2022

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.

- DUP-FAA-030922 (Lab ID: 60394835004)
- FAA-3-030922 (Lab ID: 60394835001)
- FAA-4-030922 (Lab ID: 60394835002)
- FAA-6-030922 (Lab ID: 60394835003)

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.



PROJECT NARRATIVE

Project: JEC FAL CCR Pace Project No.: 60394835

Method: EPA 300.0

Description: 300.0 IC Anions 28 Days **Client:** Evergy Kansas Central, Inc.

Date: April 27, 2022

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.

Duplicate Sample:

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

Additional Comments:

Analyte Comments:

QC Batch: 776038

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

- DUP (Lab ID: 3097299)
 - Chloride
- MS (Lab ID: 3097300)
 - Chloride
- MSD (Lab ID: 3097301)
 - Chloride

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



Project: JEC FAL CCR
Pace Project No.: 60394835

Date: 04/27/2022 05:07 PM

Sample: FAA-3-030922	Lab ID: 60	394835001	Collected: 03/09/2	22 15:20	Received: 03	3/10/22 15:00	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
200.7 Metals, Total	•		0.7 Preparation Me	thod: EF	PA 200.7			
	Pace Analytic	al Services -	Kansas City					
Barium, Total Recoverable	0.032	mg/L	0.0050	1	03/16/22 14:38	03/22/22 19:38	7440-39-3	
Boron, Total Recoverable	0.54	mg/L	0.10	1	03/16/22 14:38			
Calcium, Total Recoverable	193	mg/L	0.40	2	03/16/22 14:38	03/23/22 15:01	7440-70-2	M1
6010 MET ICP	Analytical Me	thod: EPA 60	10 Preparation Met	hod: EP	A 3010			
	Pace Analytic	al Services -	Kansas City					
Lithium, Total Recoverable	<0.030	mg/L	0.030	3	03/23/22 09:00	03/24/22 17:52	7439-93-2	
200.8 MET ICPMS	Analytical Me	thod: EPA 20	0.8 Preparation Met	thod: EF	PA 200.8			
	Pace Analytic	al Services -	Kansas City					
Arsenic, Total Recoverable	<0.0010	mg/L	0.0010	1	03/17/22 09:40	03/19/22 12:20	7440-38-2	
Cobalt, Total Recoverable	<0.0010	mg/L	0.0010	1	03/17/22 09:40	03/19/22 12:20	7440-48-4	
Molybdenum, Total Recoverable	0.0078	mg/L	0.0010	1	03/17/22 09:40	03/19/22 12:20	7439-98-7	
Selenium, Total Recoverable	<0.0010	mg/L	0.0010	1	03/17/22 09:40	03/19/22 12:20	7782-49-2	
2540C Total Dissolved Solids	Analytical Me	thod: SM 254	40C					
	Pace Analytic	al Services -	Kansas City					
Total Dissolved Solids	1540	mg/L	13.3	1		03/16/22 15:15	;	
4500H+ pH, Electrometric	Analytical Me	thod: SM 450	00-H+B					
•	Pace Analytic	al Services -	Kansas City					
pH at 25 Degrees C	7.2	Std. Units	0.10	1		03/17/22 12:31		H6
300.0 IC Anions 28 Days	Analytical Me	thod: EPA 30	0.0					
	Pace Analytic							
Chloride	77.2	mg/L	10.0	10		03/22/22 23:38	16887-00-6	
Fluoride	<0.20	mg/L	0.20	1		03/21/22 18:01	16984-48-8	
Sulfate	445	mg/L	200	200		03/21/22 18:15	14808-79-8	



Project: JEC FAL CCR
Pace Project No.: 60394835

Date: 04/27/2022 05:07 PM

Sample: FAA-4-030922	Lab ID: 603	394835002	Collected: 03/09/2	22 14:25	Received: 03	3/10/22 15:00	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Me	thod: EPA 20	0.7 Preparation Me	thod: EF	PA 200.7			
	Pace Analytic	al Services -	Kansas City					
Barium, Total Recoverable	0.049	mg/L	0.0050	1	03/16/22 14:38	03/22/22 19:45	7440-39-3	
Boron, Total Recoverable	0.73	mg/L	0.10	1	03/16/22 14:38			
Calcium, Total Recoverable	200	mg/L	0.60	3	03/16/22 14:38	03/23/22 15:17	7440-70-2	
6010 MET ICP	Analytical Me	thod: EPA 60	10 Preparation Met	hod: EP	A 3010			
	Pace Analytic	al Services -	Kansas City					
Lithium, Total Recoverable	<0.030	mg/L	0.030	3	03/23/22 09:00	03/24/22 17:55	7439-93-2	
200.8 MET ICPMS	Analytical Me	thod: EPA 20	0.8 Preparation Me	thod: EF	PA 200.8			
	Pace Analytic	al Services -	Kansas City					
Arsenic, Total Recoverable	<0.0010	mg/L	0.0010	1	03/17/22 09:40	03/19/22 12:30	7440-38-2	
Cobalt, Total Recoverable	0.0014	mg/L	0.0010	1	03/17/22 09:40	03/19/22 12:30	7440-48-4	
Molybdenum, Total Recoverable	0.0078	mg/L	0.0010	1	03/17/22 09:40	03/19/22 12:30	7439-98-7	
Selenium, Total Recoverable	<0.0010	mg/L	0.0010	1	03/17/22 09:40	03/19/22 12:30	7782-49-2	
2540C Total Dissolved Solids	Analytical Me	thod: SM 254	40C					
	Pace Analytic	al Services -	Kansas City					
Total Dissolved Solids	1190	mg/L	13.3	1		03/16/22 15:15	5	
4500H+ pH, Electrometric	Analytical Me	thod: SM 450	00-H+B					
•	Pace Analytic	al Services -	Kansas City					
pH at 25 Degrees C	7.2	Std. Units	0.10	1		03/17/22 12:26	6	H6
300.0 IC Anions 28 Days	Analytical Me	thod: EPA 30	0.0					
	Pace Analytic							
Chloride	86.6	mg/L	10.0	10		03/22/22 23:52	16887-00-6	
Fluoride	<0.20	mg/L	0.20	1		03/21/22 18:29	16984-48-8	
Sulfate	530	mg/L	200	200		03/21/22 18:43	14808-79-8	



Project: JEC FAL CCR
Pace Project No.: 60394835

Date: 04/27/2022 05:07 PM

Sample: FAA-6-030922	Lab ID: 603	394835003	Collected: 03/09/2	22 16:15	Received: 03	3/10/22 15:00 I	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
200.7 Metals, Total	Analytical Met	hod: EPA 20	0.7 Preparation Met	thod: EF	PA 200.7			
	Pace Analytic	al Services -	Kansas City					
Barium, Total Recoverable	0.028	mg/L	0.0050	1	03/16/22 14:38	03/22/22 19:54	7440-39-3	
Boron, Total Recoverable	2.6	mg/L	0.10	1	03/16/22 14:38	03/22/22 19:54	7440-42-8	
Calcium, Total Recoverable	115	mg/L	0.40	2	03/16/22 14:38	03/23/22 15:19	7440-70-2	
6010 MET ICP	Analytical Met	hod: EPA 60	10 Preparation Met	hod: EP	A 3010			
	Pace Analytic	al Services -	Kansas City					
Lithium, Total Recoverable	<0.030	mg/L	0.030	3	03/23/22 09:00	03/24/22 17:57	7439-93-2	
200.8 MET ICPMS	Analytical Met	hod: EPA 20	0.8 Preparation Met	thod: EF	PA 200.8			
	Pace Analytic	al Services -	Kansas City					
Arsenic, Total Recoverable	0.010	mg/L	0.0010	1	03/17/22 09:40	03/19/22 12:33	7440-38-2	
Cobalt, Total Recoverable	0.0013	mg/L	0.0010	1	03/17/22 09:40	03/19/22 12:33	7440-48-4	
Molybdenum, Total Recoverable	0.20	mg/L	0.0010	1	03/17/22 09:40	03/19/22 12:33	7439-98-7	
Selenium, Total Recoverable	<0.0010	mg/L	0.0010	1	03/17/22 09:40	03/19/22 12:33	7782-49-2	
2540C Total Dissolved Solids	Analytical Met	hod: SM 254	40C					
	Pace Analytic	al Services -	Kansas City					
Total Dissolved Solids	1500	mg/L	20.0	1		03/16/22 15:15	i	
4500H+ pH, Electrometric	Analytical Met	hod: SM 450	00-H+B					
•	Pace Analytic	al Services -	Kansas City					
pH at 25 Degrees C	7.5	Std. Units	0.10	1		03/17/22 12:35	i	H6
300.0 IC Anions 28 Days	Analytical Met	hod: EPA 30	0.0					
	Pace Analytic							
Chloride	75.4	mg/L	10.0	10		03/23/22 00:06	16887-00-6	
Fluoride	0.56	mg/L	0.20	1		03/21/22 18:57	16984-48-8	
Sulfate	894	mg/L	200	200		03/21/22 19:11	14808-79-8	



Project: JEC FAL CCR
Pace Project No.: 60394835

Date: 04/27/2022 05:07 PM

Sample: DUP-FAA-030922	Lab ID: 603	94835004	Collected: 03/09/2	2 16:15	Received: 03	/10/22 15:00	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Met	hod: EPA 20	0.7 Preparation Met	hod: EP	A 200.7			
	Pace Analytica	al Services -	Kansas City					
Barium, Total Recoverable	0.027	mg/L	0.0050	1	03/16/22 14:38	03/22/22 19:56	7440-39-3	
Boron, Total Recoverable	2.7	mg/L	0.10	1	03/16/22 14:38	03/22/22 19:56	7440-42-8	
Calcium, Total Recoverable	111	mg/L	0.40	2	03/16/22 14:38	03/23/22 15:21	7440-70-2	
6010 MET ICP	Analytical Met	hod: EPA 60	110 Preparation Meth	od: EP	A 3010			
	Pace Analytica	al Services -	Kansas City					
Lithium, Total Recoverable	<0.030	mg/L	0.030	3	03/23/22 09:00	03/24/22 17:59	7439-93-2	
200.8 MET ICPMS	Analytical Met	hod: EPA 20	0.8 Preparation Met	hod: EP	A 200.8			
	Pace Analytica	al Services -	Kansas City					
Arsenic, Total Recoverable	0.011	mg/L	0.0010	1	03/17/22 09:40	03/19/22 12:36	7440-38-2	
Cobalt, Total Recoverable	0.0013	mg/L	0.0010	1	03/17/22 09:40	03/19/22 12:36	7440-48-4	
Molybdenum, Total Recoverable	0.21	mg/L	0.0010	1	03/17/22 09:40	03/19/22 12:36	7439-98-7	
Selenium, Total Recoverable	<0.0010	mg/L	0.0010	1	03/17/22 09:40	03/19/22 12:36	7782-49-2	
2540C Total Dissolved Solids	Analytical Met	hod: SM 254	40C					
	Pace Analytica	al Services -	Kansas City					
Total Dissolved Solids	1520	mg/L	20.0	1		03/16/22 15:15	;	
4500H+ pH, Electrometric	Analytical Met	hod: SM 450	00-H+B					
• ,	Pace Analytica	al Services -	Kansas City					
pH at 25 Degrees C	7.6	Std. Units	0.10	1		03/18/22 15:32	2	H6
300.0 IC Anions 28 Days	Analytical Met	hod: EPA 30	0.0					
	Pace Analytica							
Chloride	75.1	mg/L	10.0	10		03/23/22 00:20	16887-00-6	
Fluoride	0.57	mg/L	0.20	1		03/21/22 19:24	16984-48-8	
Sulfate	864	mg/L	200	200		03/21/22 19:38	14808-79-8	



QUALITY CONTROL DATA

Project: JEC FAL CCR
Pace Project No.: 60394835

QC Batch: 775829

Barium Boron Calcium

QC Batch Method: EPA 200.7

LABORATORY CONTROL SAMPLE:

Date: 04/27/2022 05:07 PM

Analysis Method: EPA 200.7

Analysis Description: 200.7 Metals, Total

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60394835001, 60394835002, 60394835003, 60394835004

METHOD BLANK: 3096629 Matrix: Water

Associated Lab Samples: 60394835001, 60394835002, 60394835003, 60394835004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
	mg/L	<0.0050	0.0050	03/22/22 19:33	
	mg/L	<0.10	0.10	03/22/22 19:33	
	ma/l	< 0.20	0.20	03/22/22 19:33	

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium	mg/L		1.1	108	85-115	
Roron	ma/l	1	0 99	aa	85-115	

 Barium
 mg/L
 1
 1.1
 108
 85-115

 Boron
 mg/L
 1
 0.99
 99
 85-115

 Calcium
 mg/L
 10
 10.4
 104
 85-115

MATRIX SPIKE & MATRIX S	SPIKE DUPL	ICATE: 3096	631		3096632							
Parameter	Units	60394835001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.032	1	1	1.1	1.1	105	104	70-130	1	20	
Boron	mg/L	0.54	1	1	1.6	1.5	102	100	70-130	1	20	
Calcium	ma/l	193	10	10	203	197	94	42	70-130	3	20	M1

MATRIX SPIKE SAMPLE:	3096633						
		60394850006	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Barium	mg/L	0.073	1	1.1	105	70-130	
Boron	mg/L	0.55	1	1.6	101	70-130	
Calcium	mg/L	133	10	145	115	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.



QUALITY CONTROL DATA

Project: JEC FAL CCR
Pace Project No.: 60394835

Date: 04/27/2022 05:07 PM

QC Batch: 775918 Analysis Method: EPA 200.8
QC Batch Method: EPA 200.8 Analysis Description: 200.8 MET

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60394835001, 60394835002, 60394835003, 60394835004

METHOD BLANK: 3096897 Matrix: Water

Associated Lab Samples: 60394835001, 60394835002, 60394835003, 60394835004

Parameter	Units	Result	Limit	Analyzed	Qualifiers
Arsenic	mg/L	<0.0010	0.0010	03/19/22 11:26	
Cobalt	mg/L	< 0.0010	0.0010	03/19/22 11:26	
Molybdenum	mg/L	< 0.0010	0.0010	03/19/22 11:26	
Selenium	mg/L	< 0.0010	0.0010	03/19/22 11:26	

LABORATORY CONTROL SAMPLE:	3096898					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Arsenic	mg/L	0.04	0.040	101	85-115	
Cobalt	mg/L	0.04	0.041	103	85-115	
Molybdenum	mg/L	0.04	0.041	103	85-115	
Selenium	mg/L	0.04	0.040	101	85-115	

MATRIX SPIKE & MATRIX S	PIKE DUPL	ICATE: 3096	899		3096900							
			MS	MSD								
		60394479004	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Arsenic	mg/L	ND	0.04	0.04	0.042	0.042	104	105	70-130	1	20	
Cobalt	mg/L	2.4 ug/L	0.04	0.04	0.039	0.040	91	93	70-130	3	20	
Molybdenum	mg/L	ND	0.04	0.04	0.042	0.043	103	105	70-130	2	20	
Selenium	mg/L	ND	0.04	0.04	0.040	0.041	98	99	70-130	1	20	

MATRIX SPIKE SAMPLE:	3096901						
		60394835001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Arsenic	mg/L	<0.0010	0.04	0.039	97	70-130	
Cobalt	mg/L	< 0.0010	0.04	0.034	84	70-130	
Molybdenum	mg/L	0.0078	0.04	0.047	97	70-130	
Selenium	mg/L	<0.0010	0.04	0.039	97	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.



QUALITY CONTROL DATA

Project: JEC FAL CCR
Pace Project No.: 60394835

QC Batch: 777158 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60394835001, 60394835002, 60394835003, 60394835004

METHOD BLANK: 3101066 Matrix: Water
Associated Lab Samples: 60394835001, 60394835002, 60394835003, 60394835004

Blank Reporting

Parameter Units Result Limit Analyzed Qualifiers

Lithium mg/L <0.010 0.010 03/24/22 14:33

LABORATORY CONTROL SAMPLE: 3101067

Date: 04/27/2022 05:07 PM

Spike LCS LCS % Rec Conc. Result % Rec Limits Qualifiers Parameter Units Lithium mg/L 0.89 89 80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3101068 3101069

MS MSD

60394834002 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Conc. Result Result % Rec % Rec **RPD** RPD Qual Result Conc. Limits < 0.030 101 20 Lithium mg/L 1.0 1.0 101 75-125 0

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.



QUALITY CONTROL DATA

Project: JEC FAL CCR
Pace Project No.: 60394835

QC Batch: 775867 Analysis Method: SM 2540C

QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60394835001, 60394835002, 60394835003, 60394835004

METHOD BLANK: 3096792 Matrix: Water

Associated Lab Samples: 60394835001, 60394835002, 60394835003, 60394835004

Parameter Units Result Limit

Parameter Units Result Limit Analyzed Qualifiers

Total Dissolved Solids mg/L <5.0 5.0 03/16/22 15:12

LABORATORY CONTROL SAMPLE: 3096793

Spike LCS LCS % Rec Conc. Result % Rec Limits Qualifiers Parameter Units **Total Dissolved Solids** mg/L 1000 1000 100 80-120

SAMPLE DUPLICATE: 3096794

60394821003 Dup Max Parameter Units Result Result **RPD RPD** Qualifiers 1040 **Total Dissolved Solids** mg/L 1050 0 10

SAMPLE DUPLICATE: 3096795

Date: 04/27/2022 05:07 PM

60394850001 Dup Max RPD RPD Parameter Units Result Result Qualifiers Total Dissolved Solids 545 532 2 mg/L 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.



QUALITY CONTROL DATA

Project: JEC FAL CCR
Pace Project No.: 60394835

QC Batch: 776035 Analysis Method: SM 4500-H+B
QC Batch Method: SM 4500-H+B Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60394835001, 60394835002, 60394835003

SAMPLE DUPLICATE: 3097276

Date: 04/27/2022 05:07 PM

 Parameter
 Units
 60394853005 Result
 Dup Result
 Max RPD
 Max RPD
 Qualifiers

 pH at 25 Degrees C
 Std. Units
 7.6
 7.6
 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.



QUALITY CONTROL DATA

Project: JEC FAL CCR

Pace Project No.: 60394835

QC Batch: 776255 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: 60394835004

SAMPLE DUPLICATE: 3097993

Date: 04/27/2022 05:07 PM

60394734002 Dup Max Parameter Units Result RPD RPD Qualifiers Result 7.2 pH at 25 Degrees C 7.3 5 H6 Std. Units 0

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.



QUALITY CONTROL DATA

Project: JEC FAL CCR Pace Project No.: 60394835

QC Batch: 776038 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: 60394835001, 60394835002, 60394835003, 60394835004

METHOD BLANK: 3097297 Matrix: Water
Associated Lab Samples: 60394835001, 60394835002, 60394835003, 60394835004

Blank Reporting Qualifiers Parameter Units Result Limit Analyzed Chloride mg/L <1.0 03/18/22 08:21 1.0 Fluoride < 0.20 0.20 03/18/22 08:21 mg/L Sulfate mg/L <1.0 1.0 03/18/22 08:21

METHOD BLANK: 3100176 Matrix: Water
Associated Lab Samples: 60394835001, 60394835002, 60394835003, 60394835004

Blank Reporting Parameter Units Result Limit Analyzed Qualifiers Chloride <1.0 03/21/22 07:11 mg/L 1.0 Fluoride mg/L < 0.20 0.20 03/21/22 07:11 Sulfate mg/L <1.0 03/21/22 07:11

METHOD BLANK: 3101330 Matrix: Water

Associated Lab Samples: 60394835001, 60394835002, 60394835003, 60394835004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<1.0	1.0	03/22/22 13:22	
Fluoride	mg/L	<0.20	0.20	03/22/22 13:22	
Sulfate	mg/L	<1.0	1.0	03/22/22 13:22	

LABORATORY CONTROL SAMPLE: 3097298

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L		4.8	96	90-110	
Fluoride	mg/L	2.5	2.7	108	90-110	
Sulfate	mg/L	5	5.1	102	90-110	

LABORATORY CONTROL SAMPLE: 3100177

Date: 04/27/2022 05:07 PM

EABORATORY GOVINGE GAWII EE.	3100177	Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Chloride	mg/L	5	4.5	91	90-110	
Fluoride	mg/L	2.5	2.4	96	90-110	
Sulfate	mg/L	5	4.9	97	90-110	

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.



QUALITY CONTROL DATA

Project: JEC FAL CCR
Pace Project No.: 60394835

Date: 04/27/2022 05:07 PM

LABORATORY CONTROL SAMPLE:	3101331					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Chloride	mg/L	5	4.9	98	90-110	
Fluoride	mg/L	2.5	2.5	98	90-110	
Sulfate	mg/L	5	5.1	102	90-110	

MATRIX SPIKE & MATRIX SI	PIKE DUPL	ICATE: 3097	300		3097301							
Parameter	Units	60394782002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec	RPD	Max RPD	Qual
Chloride	mg/L	268	50	50	311	308	85	80	80-120	1	15	
Fluoride Sulfate	mg/L mg/L	ND 74.7	25 50	25 50	28.6 123	27.8 122	114 97	111 94	80-120 80-120	3 1	15 15	

SAMPLE DUPLICATE: 3097299						
		60394782002	Dup		Max	
Parameter	Units	Result	Result	RPD	RPD	Qualifiers
Chloride	mg/L	268	262	2	15	E
Fluoride	mg/L	ND	<2.0		15	
Sulfate	mg/L	74.7	73.7	1	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.



Project: JEC FAL CCR
Pace Project No.: 60394835

Sample: FAA-3-030922 PWS:	Lab ID: 6039 Site ID:	4835001 Collected: 03/09/22 15:20 Sample Type:	Received:	03/10/22 15:00	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg				
Radium-226	EPA 903.1	0.197 ± 0.388 (0.709) C:NA T:97%	pCi/L	03/24/22 12:11	13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 904.0	0.403 ± 0.322 (0.630) C:69% T:90%	pCi/L	03/24/22 11:22	2 15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	0.600 ± 0.710 (1.34)	pCi/L	03/25/22 10:37	7 7440-14-4	



Project: JEC FAL CCR
Pace Project No.: 60394835

Sample: FAA-4-030922 PWS:	Lab ID: 6039 Site ID:	4835002 Collected: 03/09/22 14:25 Sample Type:	Received:	03/10/22 15:00	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg				
Radium-226	EPA 903.1	0.456 ± 0.498 (0.783) C:NA T:100%	pCi/L	03/24/22 12:27	13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 904.0	0.346 ± 0.298 (0.591) C:71% T:91%	pCi/L	03/24/22 11:22	15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	0.802 ± 0.796 (1.37)	pCi/L	03/25/22 10:37	7440-14-4	



Project: JEC FAL CCR
Pace Project No.: 60394835

Sample: FAA-6-030922 PWS:	Lab ID: 6039 Site ID:	4835003 Collected: 03/09/22 16:15 Sample Type:	Received:	03/10/22 15:00	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg				
Radium-226	EPA 903.1	0.0745 ± 0.484 (0.977) C:NA T:97%	pCi/L	03/24/22 12:27	13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 904.0	0.0194 ± 0.303 (0.705) C:69% T:89%	pCi/L	03/24/22 11:22	15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	0.0939 ± 0.787 (1.68)	pCi/L	03/25/22 10:37	7440-14-4	



Project: JEC FAL CCR
Pace Project No.: 60394835

Sample: DUP-FAA-030922 PWS:	Lab ID: 6039 Site ID:	4835004 Collected: 03/09/22 16:15 Sample Type:	Received:	03/10/22 15:00	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg				
Radium-226	EPA 903.1	0.000 ± 0.500 (1.04) C:NA T:94%	pCi/L	03/24/22 12:27	13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 904.0	0.416 ± 0.348 (0.696) C:73% T:90%	pCi/L	03/24/22 11:22	15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	0.416 ± 0.848 (1.74)	pCi/L	03/25/22 10:37	7440-14-4	



QUALITY CONTROL - RADIOCHEMISTRY

Project: JEC FAL CCR
Pace Project No.: 60394835

QC Batch: 490868 Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1 Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 60394835001, 60394835002, 60394835003, 60394835004

METHOD BLANK: 2374591 Matrix: Water
Associated Lab Samples: 60394835001, 60394835002, 60394835003, 60394835004

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-226
 -0.0998 ± 0.277 (0.654) C:NA T:105%
 pCi/L
 03/24/22 11:50

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.



QUALITY CONTROL - RADIOCHEMISTRY

Project: JEC FAL CCR
Pace Project No.: 60394835

QC Batch: 490870 Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0 Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 60394835001, 60394835002, 60394835003, 60394835004

METHOD BLANK: 2374594 Matrix: Water
Associated Lab Samples: 60394835001, 60394835002, 60394835003, 60394835004

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-228 0.144 ± 0.285 (0.629) C:75% T:93% pCi/L 03/24/22 11:20

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.



QUALIFIERS

Project: JEC FAL CCR Pace Project No.: 60394835

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.

ANALYTE QUALIFIERS

Date: 04/27/2022 05:07 PM

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.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: JEC FAL CCR
Pace Project No.: 60394835

Date: 04/27/2022 05:07 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60394835001	FAA-3-030922	EPA 200.7	775829	EPA 200.7	776012
60394835002	FAA-4-030922	EPA 200.7	775829	EPA 200.7	776012
60394835003	FAA-6-030922	EPA 200.7	775829	EPA 200.7	776012
60394835004	DUP-FAA-030922	EPA 200.7	775829	EPA 200.7	776012
60394835001	FAA-3-030922	EPA 3010	777158	EPA 6010	777253
0394835002	FAA-4-030922	EPA 3010	777158	EPA 6010	777253
0394835003	FAA-6-030922	EPA 3010	777158	EPA 6010	777253
0394835004	DUP-FAA-030922	EPA 3010	777158	EPA 6010	777253
0394835001	FAA-3-030922	EPA 200.8	775918	EPA 200.8	776167
0394835002	FAA-4-030922	EPA 200.8	775918	EPA 200.8	776167
0394835003	FAA-6-030922	EPA 200.8	775918	EPA 200.8	776167
60394835004	DUP-FAA-030922	EPA 200.8	775918	EPA 200.8	776167
60394835001	FAA-3-030922	EPA 903.1	490868		
0394835002	FAA-4-030922	EPA 903.1	490868		
0394835003	FAA-6-030922	EPA 903.1	490868		
0394835004	DUP-FAA-030922	EPA 903.1	490868		
60394835001	FAA-3-030922	EPA 904.0	490870		
0394835002	FAA-4-030922	EPA 904.0	490870		
0394835003	FAA-6-030922	EPA 904.0	490870		
0394835004	DUP-FAA-030922	EPA 904.0	490870		
0394835001	FAA-3-030922	Total Radium Calculation	492886		
0394835002	FAA-4-030922	Total Radium Calculation	492886		
0394835003	FAA-6-030922	Total Radium Calculation	492886		
0394835004	DUP-FAA-030922	Total Radium Calculation	492886		
60394835001	FAA-3-030922	SM 2540C	775867		
0394835002	FAA-4-030922	SM 2540C	775867		
0394835003	FAA-6-030922	SM 2540C	775867		
0394835004	DUP-FAA-030922	SM 2540C	775867		
0394835001	FAA-3-030922	SM 4500-H+B	776035		
0394835002	FAA-4-030922	SM 4500-H+B	776035		
0394835003	FAA-6-030922	SM 4500-H+B	776035		
60394835004	DUP-FAA-030922	SM 4500-H+B	776255		
60394835001	FAA-3-030922	EPA 300.0	776038		
60394835002	FAA-4-030922	EPA 300.0	776038		
0394835003	FAA-6-030922	EPA 300.0	776038		
60394835004	DUP-FAA-030922	EPA 300.0	776038		



Pace MALVIER SHAPER

DC#_Title: ENV-FRM-LENE-0009_Sample (

Client Name:		Revision. 2	Effective Date: 01/12/20	22 Issued by. Leffex	•
Pack Shipping Label Used? Yes No. No. Seals intact. Yes No.	Client Name: <u>Ev</u>	lergy KS Centro	1		
Custody Seal on Cooler/Box Present: Yos No Seals intact: Yes No Packing Material: Bubble Wrap Bubble Bags Foam None Other Thermometer Used: 149 Type of Ice: No Blue None Other Tomperature (*C): As-read Y-Y Corr. Factor Seals intact: Yes No Other Temperature should be above freezing to 6*C Chain of Custody present: As-read Y-Y Corr. Factor Seamples arrived within holding time: Ayes No InviA Samples arrived within holding time: Ayes No InviA Short Hold Time analyses (<72hr): Ayes No InviA Sufficient volume: Ayes InviA Sufficient volume: Ayes InviA Sufficient volume: Ayes InviA Sufficient volume: Ayes InviA Samples arrived within holding time: Ayes InviA Sufficient volume: Ayes InviA Sufficient volume: Ayes InviA Supples arrived for dissolved tests? Ayes InviA Samples archived for dissolved tests? Ayes InviA Samples contain multiple phases? Matrix: Ayes InviA Samples contain multipl	Courier: FedEx □ UPS	□ VIA □ Clay □	PEX 🗆 ECI 🗆	Pace □ Xroads □ C	ient∕⊡ Other □
Packing Material: Thermometer Used: Type of Ice: Foam None Other Type of Ice: Foam None Other Type of Ice: Foam None Other Type of Ice: Foam Seam Seam Date and initials of person examining contents: Temperature should be above freezing to 6°C Chain of Custody present: Chain of Custody relinquished: Chain of Custody relinquished: Chain of Custody relinquished: Chain of Custody relinquished: Samples arrived within holding time: Short Hold Time analyses (<72hr): Tyes No Ni/A Short Hold Time analyses (<72hr): Tyes No Ni/A Sufficient volume: Correct containers used: Tyes No Ni/A Sufficient volume: Correct containers used: Tyes No Ni/A Containers intact: Tyes No Ni/A Longreserved 5035A / TX1005/1006 soils frozen in 48hrs? Tyes No Ni/A Sample labels match COC: Date / time / ID / analyses Tyes No Ni/A Samples contain multiple phases? Matrix: Tyes No Ni/A List sample IDs, volumes, lot #'s of preservative and the date/time added. Stypes No Ni/A List sample IDs, volumes, lot #'s of preservative and the date/time added. Tyes No Ni/A List sample IDs, volumes, lot #'s of preservative and the date/time added. Tyes No Ni/A List sample IDs, volumes, lot #'s of preservative and the date/time added. Types No Ni/A List sample IDs, volumes, lot #'s of preservative and the date/time added.	Tracking #:		Pace Shipping Label Used	? Yes □ No	
Trype of Ice: (Ig) Blue None Cooler Temperature (°C): As-read	Custody Seal on Cooler/Box	Present: Yes □ No	Seals intact: Yes	No, 🖸	
Corlet Temperature (°C): As-read			lags □ Foam □	None ☐ Other	
Corrected 4. Corre	Thermometer osea.	<u>·</u>			NORTH AND ADDRESS OF THE PARTY
Temperature should be above freezing to 6°C Chain of Custody present: Chain of Custody relinquished: Samples arrived within holding time: Short Hold Time analyses (<72hr): Rush Turn Around Time requested: Sufficient volume: Correct containers used: Correct containers used: Correct containers used: Containers intact: Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs? Sample labels match COC: Date / time / ID / analyses Samples contain multiple phases? Matrix: Containers requiring pH preservation in compliance? HNOs, HySOs, HCI<2; NaOH-9 Sulfide, NaOH-10 Cyanide) Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO) Cyanide water sample checks: Lead acetate strip turns dark? (Record only) Polassium iodide test strip turns blue/purple? (Preserve) Tyes Ino IN/A List sample IDs, volumes, lot #'s of preservative and the date/fime added. Eves Ino IN/A List sample IDs, volumes, lot #'s of preservative and the date/fime added. Eves Ino IN/A List sample IDs, volumes, lot #'s of preservative and the date/fime added. Eves Ino IN/A List sample IDs, volumes, lot #'s of preservative and the date/fime added. Eves Ino IN/A List sample IDs, volumes, lot #'s of preservative and the date/fime added. Eves Ino IN/A List sample IDs, volumes, lot #'s of preservative and the date/fime added. Eves Ino IN/A List sample IDs, volumes, lot #'s of preservative and the date/fime added. Eves Ino IN/A List sample IDs, volumes, lot #'s of preservative and the date/fime added.	Cooler Temperature (°C): A	As-read 9.9 Corr.	Factor ~ QZ Correct	ed <u>4. v</u>	
Chain of Custody relinquished: Samples arrived within holding time: Short Hold Time analyses (<72hr): Yes No					pr3/11/22
Samples arrived within holding time: Ves No No No No No No No N	Chain of Custody present:		Yes No N/A		
Short Hold Time analyses (<72hr): Ves No NA No NA Sufficient volume: Ves No NA No NA No NA Ves No NA No	Chain of Custody relinquished:		Yes No N/A		
Rush Turn Around Time requested: Yes No Ni/A Correct containers used: Yes No Ni/A Pace containers used: Yes No Ni/A Containers intact: Yes No Ni/A Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs? Yes No Ni/A Unpreserved for dissolved tests? Yes No Ni/A Filtered volume received for dissolved tests? Yes No Ni/A Sample labels match COC: Date / time / ID / analyses Yes No Ni/A Samples contain multiple phases? Matrix: T Yes No Ni/A Containers requiring pH preservation in compliance? Yes No Ni/A Containers requiring pH preservation in compliance? Yes No Ni/A Containers requiring pH preservation in compliance? Yes No Ni/A Containers requiring pH preservation in compliance? Yes No Ni/A Containers requiring pH preservation in compliance? Yes No Ni/A Containers requiring pH preservation in compliance? Yes No Ni/A Containers requiring pH preservation in compliance? Yes No Ni/A Containers requiring pH preservation in compliance? Yes No Ni/A Containers requiring pH preservation in compliance? Yes No Ni/A Containers requiring pH preservation in compliance? Yes No Ni/A Containers requiring pH preservation in compliance? Yes No Ni/A Containers requiring pH preservation in compliance? Yes No Ni/A Containers requiring pH preservation in compliance? Yes No Ni/A Containers requiring pH preservation in compliance? Yes No Ni/A Containers requiring pH preservation in compliance? Yes No Ni/A Containers requiring pH preservation in compliance? Yes No Ni/A Containers requiring pH preservation in compliance? Yes No Ni/A Containers requiring pH preservation in compliance? Yes No Ni/A Containers requiring pH preservation in compliance? Yes No Ni/A Containers requiring pH preservation in complian	Samples arrived within holding	time:	Yes □No □N/A		
Sufficient volume: Yes	Short Hold Time analyses (<7	/2hr):	☐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 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: Yes No N/A Containers requiring pH preservation in compliance? Yes No N/A Containers requiring pH preservation in compliance? Yes No N/A Containers requiring pH preservation in compliance? Yes No N/A Containers requiring pH preservation in compliance? Yes No N/A Containers requiring pH preservation in compliance? Yes No N/A Containers requiring pH preservation in compliance? Yes No N/A Containers requiring pH preservation in compliance? Yes No N/A Containers requiring pH preservation in compliance? Yes No N/A Containers requiring pH preservation in compliance? Yes No N/A Containers requiring pH preservation in compliance? Yes No N/A Containers requiring pH preservation in compliance? Yes No N/A Containers requiring pH preservation in compliance? Yes No N/A Containers requiring pH preservation in compliance? Yes No N/A Containers requiring pH preservation in compliance? Yes No N/A Containers requiring pH preservation in compliance? Yes No N/A Containers requiring pH preservation in compliance? Yes No N/A Containers requiring pH preservation in compliance? Yes No N/A Containers requiring pH preservation in compliance? Yes No N/A Containers requiring pH preservation in compliance? Yes No N/A Containers requiring pH preservation in compliance? Yes No N/A Containers requiring pH preservation in compliance? Yes No N/A Containers requiring pH pr	Rush Turn Around Time requ	ested:	□Yes ☑No □N/A		
Pace containers used: Yes No N/A	Sufficient volume:		Yes □No □N/A		
Containers intact: Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs? Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs? If itered volume received for dissolved tests? If itered volume received for dissolved	Correct containers used:		Yes □No □N/A		
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs? Yes No N/A	Pace containers used:		√Yes □No □N/A		
Filtered volume received for dissolved tests? Yes	Containers intact:		ZYes □No □N/A		
Sample labels match COC: Date / time / ID / analyses Yes	Unpreserved 5035A / TX1005/1	1006 soils frozen in 48hrs	? □Yes □No ☑N/A		
Samples contain multiple phases? Matrix: T	Filtered volume received for dis	solved tests?	□Yes □No □N/A		
Containers requiring pH preservation in compliance? (HNO ₃ , H ₂ SO ₄ , HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO) Cyanide water sample checks: Lead acetate strip turns dark? (Record only) Potassium iodide test strip turns blue/purple? (Preserve) Trip Blank present: Yes No N/A Headspace in VOA vials (>6mm):	Sample labels match COC: Dat	e / time / ID / analyses	Yes □No □N/A		
HNO ₃ , H ₂ SO ₄ , HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO) Cyanide water sample checks: Lead acetate strip turns dark? (Record only) Potassium iodide test strip turns blue/purple? (Preserve) Trip Blank present: Yes No N/A Headspace in VOA vials (>6mm):	Samples contain multiple phase	es? Matrix:	T ☐Yes No ☐N/A		
Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO) Cyanide water sample checks: Lead acetate strip turns dark? (Record only) Potassium iodide test strip turns blue/purple? (Preserve) Trip Blank present: Headspace in VOA vials (>6mm): DYes No NA Headspace NaOH>10 Cyanide) LOT#: 55/92 Ves No Pyes No No NA		·			lot #'s of preservative and the
Cyanide water sample checks: Lead acetate strip turns dark? (Record only) Potassium iodide test strip turns blue/purple? (Preserve) Trip Blank present:		•	F192	uate/lime added.	
Potassium iodide test strip turns blue/purple? (Preserve) Trip Blank present: Yes No N/A Headspace in VOA vials (>6mm):		TITI, OK-BROJ	LO1#. 357		
Trip Blank present: Yes No ZN/A Headspace in VOA vials (>6mm): Yes No ZN/A		- '	I		
Headspace in VOA vials (>6mm): □Yes □No □N/A	Potassium iodide test strip turns	s blue/purple? (Preserve)	□Yes □No		
	Гrip Blank present:		□Yes □No □N/A		
Samples from USDA Regulated Area: State:	Headspace in VOA vials (>6mr	n):	□Yes □No □N/A		
/ / 1	Samples from USDA Regulated	Area: State:	□Yes □No □N/A		
Additional labels attached to 5035A / TX1005 vials in the field? □Yes □No ZN/A	Additional labels attached to 50	35A / TX1005 vials in the	field? □Yes □No □N/A		
Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N	Client Notification/ Resolution	n: Copy C	COC to Client? Y / N	Field Data Required?	Y / N
Person Contacted: Date/Time:	Person Contacted:		oate/Time:		
Comments/ Resolution:	Comments/ Resolution:				
Project Manager Review	Project Manager Review		Data		



CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

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Section Required	A I Client Information:	Section B Required Pro	ject In	format	tion:						tion ice Int	C	tion:														P	age:	1	of	1	
Company	EVERGY KANSAS CENTRAL, INC.	Report To: M				amantha	Kaney, D	anielle C	ber	Atter	_	_	Acco	unts	Pay	able		_									_					
Address:	Jeffrey Energy Center (JEC)	Copy To: Ja	ared	Morri	ison, Ja	ke Hump	hrey, Lau	ra Hines	-	Com	ралу	Name	∍: E	VER	GY I	KANS	SAS	CEI	NTR/	AL, I	NC	REG	ULAT	ORY	/ AG	ENC	Υ	_				
	818 Kansas Ave, Topeka, KS 66612									Addr	ess:		See :					-		_	_		NPDE	_	₩ G		_	ΛΑΤΕ	R [DRINKING	WATER	
Email To:	melissa.michels@evergy.com	Purchase Ord	er No.	:					-		Quote		-						-		\dashv		UST		r R					OTHER	, WATER	
Phone:	785-575-8113 Fax:	Project Name:	JI	EC F	AL CCF	₹			-		rence: Proje		Alice	Spil	er 9	13-56	33-14	403	_	_	+	_	Loca	_		.010		_		OTHER	E PERON	- N
Request	ed Due Date/TAT: 7 day	Project Number	er,	-	-				-	Mane Pace	Profile		9657						-		\dashv	9108				KS	3					
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	Required Client Information MATRIX	CODE		£ _		COLLI	ECTED				L	/	Prese	rvati	ves		N/K	N	N	N	N	N I	N N									
	DRINKING WATER WATER	DW WT	sepo:	C=COMP)	COMPO	PITE			NO	1	Г	П		Γ	П	П	Г	Т	П		П	Т	Т	П	П		П	П				
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	SAMPLE ID WIPE	OL WP	8 S	(G=GKAB					S	<u>ڇ</u>		Н					اپز	i is	tals			١,						Residual Chlorine (Y/N)		349	25	
	(A-Z, 0-9 / ,-) AIR OTHER	AR OT	<u>ا</u> ا لا						SAMPLE TEMP AT	# OF CONTAINERS	ŀ	11			Ш		Test	≗	₩	핗	804	2540C TDS	228					[[]		all	0	
	Sample IDs MUST BE UNIQUE TISSUE	TS G	MAIRIX CODE	SAMPLE LYPE					TEM	Į	Unpreserved	11			_m	-	Analysis	lag gal	otal	4500 H+B pH	щ		6/2 8/2	Н				힐	-	5 ' '		
* ∑			ž į	를					PLE	۱ñ)res	g	രീ_	占	Na ₂ S ₂ O ₃	Methanol	[돌	-	8. T	빙	300: CI, F,	ပျင်	226/					ig	100			
ITEM			§ 8	NA P	DATE	TIME	DATE	TIME	SAN	Q #	15	H ₂ SO ₄	Ñ H	NaOH	Raz	Meth Other	₹	200.7 Total Metals	200.8 Total Metals	5		2540C TDS	Rad					%	Pace	Project N	lo./ Lab I.	D.
1	FAA-3-030922	V	VT 0	G	74E		03/09/22	15:20		7	3	П	4		П		T	х	_	х	_	_	(x				П	П				
2	FAA-4-030922	V	VT (G			03/09/22	14:25		7	3		4]	X	х	х	х	x :	(x					П				
3	FAA-6-030922	v	VT (G	700		03/09/22	16:15		7	3		4]	X	х	х	х	x z	(x					П				
4	DUP-FAA-030922	v	VT I	G	12		03/09/22	16:15	2	7	3		4				1	x	x	х	х	x :	(x									
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	tal Metals**: As, Co, Mo, Se,	-	Ja	son F	R. Frank	s / SCS		3/10/2	2	-	15:00	•	4	W	V	u	A	15	7_			i	3/10	_	15	W	14	1.2	/	~		
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6010 Tot	al Metals***: Li																															
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Page 36 of							PRINT Name	of SAMP	LER:	lac	on E	2/Er	anke		_	-/		-			_	_		-	_	_	1	Temp in °C	(N/S)	y Seg	as Int	
δ 9							SIGNATURI				/			0) -	1.	/		ATE								1,	lem	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact	-
f 42				emion	- or order		_(10	20	9	4	7	Na	ميال	1	MM/D	D/YY):	-	3	/10/2	2			_		ರ	, ĭŏ	_			

Client:	Bergy KS	Central	Profile #	9657	-
Site:			Notes	BPIN 169	SI-RAD/SI-RADOR

COC Line Item	Matrix	VG9H	резн	DG9G	UGDV	DG9N	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	врзи	BP1N	BP3N	врзг	BP3S	вРзс	BP3Z	WPDU	ZPLC	Other	
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Container Codes

		Glass			Plastic		Misc.
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar	BP1C	1L NAOH plastic	1	Wipe/Swab
OG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar	BP1N	1L HNO3 plastic	SP5T	120mL Coliform Na Thiosulfate
DG9M	40mL MeOH clear vial	[WG2U	2oz clear soil jar	BP1S	1L H2SO4 plastic	ZPLC	Ziploc Bag
DG9Q	40mL TSP amber vial	[JGFU	4oz unpreserved amber wide	BP1U	1L unpreserved plastic	AF	Air Filter
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass	BP1Z	1L NaOH, Zn Acetate	С	Air Cassettes
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass	BP2C	500mL NAOH plastic	R	Terracore Kit
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass	BP2N	500mL HNO3 plastic	U	Summa Can
√G9H	40mL HCI clear vial	AG1T	1L Na Thiosulfate clear/amber glass	BP2S	500mL H2SO4 plastic		
VG9T	40mL Na Thio, clear vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic		
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Acetate		Matrix
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass	BP3C	250mL NaOH plastic		WIGHTIX
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic - field filtered	WT	Water
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic	SL	Solid
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass	BP3U	250mL unpreserved plastic	NAL	Non-aqueous Liquid
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass	BP3S	250mL H2SO4 plastic	OL	OIL
		AG5U	100mL unpres amber glass	BP3Z	250mL NaOH, Zn Acetate	WP	Wipe
				BP4U	125mL unpreserved plastic	DW	Drinking Water
				BP4N	125mL HNO3 plastic		
				BP4S	125mL H2SO4 plastic	7	

WPDU

16oz unpresserved plstic

Work Order Number:

60394835

nt	erna:	al Transfer	Chain d	of Custoc	/y —									—)		
				Sample	s Pre-Logged	into eCC	C.		Of Orig	_	_	No		-	Pace	Analytical www.pacelabs.com
Wor	korder	: 60394835 W	orkorder N	ame: JEC FA	AL CCR			Own	er Recei	_	_	3/10/2022	Resu	ılts Requ	ested By	r: 3/24/2022
Repo	ort To			Subcontra	ct To		76 S.V.S.			10000		Requesto	ed Analys	is	0.000	
Pace 9608 Lene	B Loiret E exa, KS			1638 Suites Greer	Analytical Pittsb Roseytown Roa 3 2,3, & 4 asburg, PA 1560 9 (724)850-5600	d 01	Pres	erved Con	ıtainers	Radium 226/228 total						
Item	Sample	ılD	Sample Type	Collect Date/Time	Lab ID	Matrix	HN03			Ra		CONTRACTOR AND ADDRESS OF THE ADDRES	The second control of	осственных станах в постанах в по		LAB USE ONLY
1	FAA-3-030	0922	PS	3/9/2022 15:20	60394835001	Water	1			X						601
2	FAA-4-030	0922	PS	3/9/2022 14:25	60394835002	Water	1			Х						700
3	FAA-6-030	0922	PS	3/9/2022 16:15	60394835003	Water	1			Х						003
4	DUP-FAA-	-030922	PS	3/9/2022 16:15	60394835004	Water	1			Х						004
5										00000						
	-	I		I	L .								30.00.00.00.00	Comments		
	sfers	Rejeased By	1800	Date/Time	Received B				Date/Tim	-	_	**!NO! !!D	- OC 6H	EETO**		
1	VIETON FRUCO 3/1902 1800 Phip Rode 3/15/22 1015 **INCLUDE QC SHEETS**															
3																
	ler Ten	nperature on Rec	eipt -	°C Cus	l stody Seal ∡Y	or N		Rece	l eived on	lce	Yor	$\overline{\mathbb{N}}$		Samples	Intact Y	or N
				;	<u> </u>	_					. 41					

WO#:30472877

^{***}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.

Pittsburgh Lab Sample Condit	tion l	Jpor	ı Re	eceipt	
Pace Analytical Client Name:	Pa	ce_	KS	<u> </u>	Project # <u>30472877</u>
Courier: Fed Ex UPS USPS Client	: 🗆 0	Comme	ercial	☐ Pace Other	Label JG14
Tracking #: 5333 8740 3540				_	LIMS Login VP
Custody Seal on Cooler/Box Present: yes		10	Seals	s intact:	□ no
Thermometer Used				Blue None	
Cooler Temperature Observed Temp	-	° C	Corre	ection Factor:	°C Final Temp: °C
Temp should be above freezing to 6°C		•			
			,	pH paper Lot#	Date and Initials of person examining contents:
Comments:	Yes	No	N/A	1002811	3.72.33
Chain of Custody Present:	1			1.	
Chain of Custody Filled Out:	1			2.	
Chain of Custody Relinquished:	/			3.	
Sampler Name & Signature on COC:		_		4.	
Sample Labels match COC:				5.	
-Includes date/time/ID Matrix: ω	1		F		
Samples Arrived within Hold Time:				6,	
Short Hold Time Analysis (<72hr remaining):				7.	
Rush Turn Around Time Requested:				8.	
Sufficient Volume:				9.	
Correct Containers Used:				10.	
-Pace Containers Used:					
Containers Intact:	/			11.	
Orthophosphate field filtered				12.	
Hex Cr Aqueous sample field filtered			1	13.	
Organic Samples checked for dechlorination:				14.	
Filtered volume received for Dissolved tests			_	15.	
All containers have been checked for preservation.				16. PHL 2	
exceptions: VOA, coliform, TOC, O&G, Phenolics, Non-aqueous matrix	Radon	1		V	
All containers meet method preservation requirements.	/			Initial when JBH	Date/time of preservation
				Lot # of added preservative	
Headspace in VOA Vials (>6mm):			1	17.	
Trip Blank Present:			/	18.	
Trip Blank Custody Seals Present			/		
Rad Samples Screened < 0.5 mrem/hr	/			Initial when completed: SOI+	Date: 3-/5-12 Survey Meter SN: /57-3
Client Notification/ Resolution:					
Person Contacted:			Date/	Time:	Contacted By:
Comments/ Resolution:					

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

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

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

Pace Analytical®

Pace Greensburg Lab -Sample Container Count

	-														* * *														
Client		:																	Profi	le Nu	mber	. –	77	46					
Site	603	948	35	Eve	eray	Kan	sas	Cen	hal,	I_{ν}	10								Note	s	2	c an	hau	પે¢⁄≃	t a) 	eacl	2	ne
Sample					······································	:	,				·····		Ι =			45											-		
Line Item	Matrix	AG1H	AG1S	AG1T	AG2U	AG3S	AG3U	AG5U	AG5T	BG1U	BG2U	BP1N	BP1U	BP2S	BP2U	врзс	BP3N	BP3S	врзи	DG9S	GCUB	VG9H	VG9T	VG9U	VOAK	WGFU	WGKU	ZPLC	
1	WT											2																	
2			:									2																	
3												2																	
4	WT											2																	
5		:																											
6																			· ·		N#		20	17	28	77	Hillianas) Victory	
. 7																					U ₁	• •							
8																					: CF			Due	Date	: 03	/24/2	!2	
9						i									, <i>.</i>					CL	IENT	: PA(CE_6()_LEI	(S			1	
10			:																	1	je Baicas I	1							
11																													
12								,																					
4 .	1																						·············						

Container Codes

	Glas	SS	
GJN	∮ Gallon Jug with HNO3	DG9S	40mL amber VOA vial H2SO4
AG5U	100mL amber glass unprserved	VG9U	40mL clear VOA vial
AG5T	100mL amber glass Na Thiosulfate	VG9T	40mL clear VOA vial Na Thiosul
GJN	i Gallon Jug	VG9H	40mL clear VOA vial HCl
AG1S	1L amber glass H2SO4	JGFU	4oz amber wide jar
AG1H	L amber glass HCl	WGFU	4oz wide jar unpreserved
AG1T	L amber glass Na Thiosulfate	BG2U	500mL clear glass unpreserved
BG1U	1L clear glass unpreserved	AG2U	500mL amber glass unpreserved
AG3S	250mL amber glass H2SO4	WGKU	8oz wide jar unpreserved
AG3U	250mL amber glass unpreserved		

	P
GCUB	1 Gallon Cubitainer
12GN	1/2 Gallon Cubitainer
SP5T	120mL Coliform Na Thiosulfate
BP1N	1L plastic HNO3
BP1U	1L plastic unpreserved
BP3S	250mL plastic H2SO4
BP3N	250mL plastic HNO3
BP3U	250mL plastic unpreserved
BP3C	250ml plastic NAOH
BP2S	500mL plastic H2SO4
BP2U	500mL plastic unpreserved

Ī	astic /	Misc.	
Γ	EZI	5g Епсоге	
]	VOAK	Kit for Volatile Solid	
	<u> </u>	Wipe/Swab	
	ZPLC	Ziploc Bag	

_	
WT	Water
SL	Solid
OL	Non-aqueous liquid
WP	Wipe



Quality Control Sample Performance Assessment

Test: Ra-228 Analyst: VAL Date: 3/21/2022 65628 W I Worklist: Matrix:

Pass

Method Blank Assessment MB Sample ID 2374594 MB concentration: 0.144 M/B 2 Sigma CSU: 0.285 MB MDC: 0.629 MB Numerical Performance Indicator: 0.99 MB Status vs Numerical Indicator: Pass MB Status vs. MDC:

Laboratory Control Sample Assessment	LCSD (Y or N)?	1724 2014 Y 10 20 10 20
	LCS65628	LCSD65628
Count Date:	3/24/2022	3/24/2022
Spike I.D.:	22-016	22-016
Decay Corrected Spike Concentration (pCi/mL):	36.362	36.362
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.814	0.808
Target Conc. (pCi/L, g, F):	4.468	4.499
Uncertainty (Calculated):	0.219	0.220
Result (pCi/L, g, F):	3.222	3.368
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.771	0.813
Numerical Performance Indicator:	-3.05	-2.63
Percent Recovery:	72.11%	74.85%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	135%	135%
Lower % Recovery Limits:	60%	60%

Duplicate Sample Assessment		
Sample I.D.: Duplicate Sample I.D.: Sample Result (pCi/L, g, F): Sample Result 2 Sigma CSU (pCi/L, g, F): Sample Duplicate Result (pCi/L, g, F): Sample Duplicate results below RL?	3.222 0.771 3.368 0.813	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Numerical Performance Indicator: (Based on the LCS/LCSD Percent Recoveries) Duplicate RPD: Duplicate Status vs Numerical Indicator: Duplicate Status vs RPD: % RPD Limit:	-0.255 3.72% Pass Pass	

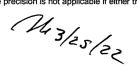
Analyst Must Manually Enter All Fields Highlighted in Yellow.

	Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
١	Sample Collection Date:		
١	Sample I.D.	er afråtti og ster	Hajabari Karibar
١	Sample MS I.D.	FPD BAT BAR	
1	Sample MSD I.D.		
1	Spike I.D.:		
1	MS/MSD Decay Corrected Spike Concentration (pCi/mL):		
1	Spike Volume Used in MS (mL):		default of the file
1	Spike Volume Used in MSD (mL):		
-	MS Aliquot (L, g, F):		
١	MS Target Conc.(pCi/L, g, F):		
	MSD Aliquot (L, g, F):		
1	MSD Target Conc. (pCi/L, g, F):		
١	MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated):		
	Sample Result:		
	Sample Result 2 Sigma CSU (pCi/L, q, F):		
H	Sample Nesdit 2 Signa 655 (polite, g, r).		
ı	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):		
Ш	MS Numerical Performance Indicator:		
	MSD Numerical Performance Indicator:		
	MS Percent Recovery:		
	MSD Percent Recovery:		
	MS Status vs Numerical Indicator:		
	MSD Status vs Numerical Indicator:		
П	MS Status vs Recovery:		
	MSD Status vs Recovery:		
	MS/MSD Upper % Recovery Limits:		
	MS/MSD Lower % Recovery Limits:		<u> </u>

٦	Matrix Spike/Matrix Spike Duplicate Sample Assessment	
e w.	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):	

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

Comments:



Page 42 of 42 SCC 3/25/2022



Quality Control Sample Performance Assessment

Test: Ra-226
Analyst: SLC
Date: 3/17/2022

Batch ID: 65627 Matrix: DW

 Method Blank Assessment
 MB Sample ID
 2374591

 MB concentration:
 -0.100

 M/B Counting Uncertainty:
 0.277

 MB MDC:
 0.654

 MB Numerical Performance Indicator:
 -0.71

 MB Status vs Numerical Indicator:
 N/A

 MB Status vs. MDC:
 Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Υ
	LCS65627	LCSD65627
Count Date:	3/24/2022	3/24/2022
Spike I.D.:	21-040	21-040
Spike Concentration (pCi/mL):	32.433	32.433
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.656	0.652
Target Conc. (pCi/L, g, F):	4.942	4.975
Uncertainty (Calculated):	0.232	0.234
Result (pCi/L, g, F):	5.406	4.139
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	1.063	0.929
Numerical Performance Indicator:	0.83	-1.71
Percent Recovery:	109.38%	83.21%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	135%	135%
Lower % Recovery Limits:	73%	73%

Duplicate Sample Assessment		
Sample I.D.: Duplicate Sample I.D.: Sample Result (pCi/L, g, F): Sample Result Counting Uncertainty (pCi/L, g, F): Sample Duplicate Result (pCi/L, g, F): Are sample and/or duplicate results below RL?	LCSD65627 5.406 1.063 4.139 0.929	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Numerical Performance Indicator:		
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	27.18%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	32%	

Analyst Must Manually Enter All Fields Highlighted in Yellow.

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:		
MSD Numerical Penormanice 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:		

П

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

Comments:

Call 312502

June 2022 Annual Assessment Sampling Event Laboratory Analytical Report





August 01, 2022

LAURA HINES EVERGY 818 Kansas Ave. Topeka, KS 66612

RE: Project: JEC FAL CCR Annual Radchem

Pace Project No.: 30497424

Dear LAURA HINES:

Enclosed are the analytical results for sample(s) received by the laboratory on June 14, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

• Pace Analytical Services - Greensburg

(Greensburg, PA) - Revision 1 - This report replaces the 7/18/22 report. This project was revised on 7/20/22 to include quality sheets per client request.

(Greensburg, PA) - Revision 2 - This report replaces the 7/20/22 report. This project was revised on 8/1/22 to remove an incorrect comment.

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

Sincerely,

Skyler C. Richmond

skyler.richmond@pacelabs.com

(724)850-5600

Project Manager

Enclosures

cc: DANIELLE OBERBROECKLING, HALEY & ALDRICH INC.

EVERGY ACCOUNTS PAYABLE, EVERGY







CERTIFICATIONS

Project: JEC FAL CCR Annual Radchem

Pace Project No.: 30497424

Pace Analytical Services Pennsylvania

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

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590 Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA Colorado Certification #: PA01547 Connecticut Certification #: PH-0694

Delaware Certification EPA Region 4 DW Rad

Florida/TNI Certification #: E87683 Georgia Certification #: C040 Florida: Cert E871149 SEKS WET

Guam Certification Hawaii Certification Idaho Certification Illinois Certification Indiana Certification

Iowa Certification #: 391 Kansas/TNI Certification #: E-10358 Kentucky Certification #: KY90133

KY WW Permit #: KY0098221 KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012 Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020 Maryland Certification #: 308

Massachusetts Certification #: M-PA1457 Michigan/PADEP Certification #: 9991 Missouri Certification #: 235 Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14 Nevada Certification #: PA014572018-1 New Hampshire/TNI Certification #: 297617 New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457 New York/TNI Certification #: 10888 North Carolina Certification #: 42706 North Dakota Certification #: R-190 Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010 Pennsylvania/TNI Certification #: 65-00282 Puerto Rico Certification #: PA01457 Rhode Island Certification #: 65-00282

South Dakota Certification
Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3 Utah/TNI Certification #: PA014572017-9 USDA Soil Permit #: P330-17-00091 Vermont Dept. of Health: ID# VT-0282 Virgin Island/PADEP Certification Virginia/VELAP Certification #: 460198 Washington Certification #: C868 West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad Wyoming Certification #: 8TMS-L



SAMPLE SUMMARY

Project: JEC FAL CCR Annual Radchem

Pace Project No.: 30497424

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30497424001	FAA-5-06/13/22	Water	06/13/22 15:35	06/14/22 09:35
30497424002	FAA-3-06/13/22	Water	06/13/22 13:05	06/14/22 09:35
30497424003	FAA-4-06/13/22	Water	06/13/22 12:15	06/14/22 09:35
30497424004	FAA-6-06/13/22	Water	06/13/22 14:00	06/14/22 09:35
30497424005	DUP-FAA06/13/22	Water	06/13/22 14:00	06/14/22 09:35

(800)999-0105



SAMPLE ANALYTE COUNT

Project: JEC FAL CCR Annual Radchem

Pace Project No.: 30497424

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30497424001	FAA-5-06/13/22	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30497424002	FAA-3-06/13/22	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30497424003	FAA-4-06/13/22	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30497424004	FAA-6-06/13/22	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30497424005	DUP-FAA06/13/22	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: JEC FAL CCR Annual Radchem

Pace Project No.: 30497424

Sample: FAA-5-06/13/22 PWS:	Lab ID: 30497 Site ID:	'424001 Collected: 06/13/22 15:35 Sample Type:	Received:	06/14/22 09:35	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical S	Services - Greensburg				
Radium-226	EPA 903.1	0.238 ± 0.248 (0.350) C:NA T:95%	pCi/L	07/12/22 16:4	9 13982-63-3	
	Pace Analytical S	Services - Greensburg				
Radium-228	EPA 904.0	0.180 ± 0.316 (0.691) C:81% T:95%	pCi/L	07/06/22 13:4	4 15262-20-1	
	Pace Analytical S	Services - Greensburg				
Total Radium	Total Radium Calculation	0.418 ± 0.564 (1.04)	pCi/L	07/13/22 18:3	9 7440-14-4	
Sample: FAA-3-06/13/22 PWS:	Lab ID: 30497 Site ID:	7424002 Collected: 06/13/22 13:05 Sample Type:	Received:	06/14/22 09:35	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical S	Services - Greensburg				
Radium-226	EPA 903.1	0.217 ± 0.249 (0.147) C:NA T:85%	pCi/L	07/12/22 16:4	9 13982-63-3	
	Pace Analytical S	Services - Greensburg				
Radium-228	EPA 904.0	1.05 ± 0.454 (0.743) C:78% T:85%	pCi/L	07/06/22 13:1	5 15262-20-1	
	Pace Analytical S	Services - Greensburg				
Total Radium	Total Radium Calculation	1.27 ± 0.703 (0.890)	pCi/L	07/13/22 18:3	9 7440-14-4	
Sample: FAA-4-06/13/22 PWS:	Lab ID: 30497 Site ID:	7424003 Collected: 06/13/22 12:15 Sample Type:	Received:	06/14/22 09:35	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Page Applytical 9					
Dadium 226	EPA 903.1	Services - Greensburg 0.106 ± 0.254 (0.491)	»C:/I	07/40/00 46:40	0 42002 62 2	
Radium-226	LI A 903.1	C:NA T:91%	pCi/L	07/12/22 16.4	9 13982-63-3	
	Pace Analytical S	Services - Greensburg				
Radium-228	EPA 904.0	0.323 ± 0.382 (0.806) C:73% T:91%	pCi/L	07/06/22 13:4	4 15262-20-1	
	Pace Analytical S	Services - Greensburg				
Total Radium	Total Radium Calculation	0.429 ± 0.636 (1.30)	pCi/L	07/13/22 18:3	9 7440-14-4	



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: JEC FAL CCR Annual Radchem

Pace Project No.: 30497424

Sample: FAA-6-06/13/22 PWS:	Lab ID: 304976 Site ID:	424004 Collected: 06/13/22 14:00 Sample Type:	Received:	06/14/22 09:35	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical S	ervices - Greensburg				
Radium-226	EPA 903.1	0.177 ± 0.204 (0.120) C:NA T:95%	pCi/L	07/12/22 16:49	13982-63-3	
	Pace Analytical S	ervices - Greensburg				
Radium-228	EPA 904.0	0.178 ± 0.339 (0.744) C:75% T:95%	pCi/L	07/06/22 13:44	15262-20-1	
	Pace Analytical S	ervices - Greensburg				
Total Radium	Total Radium Calculation	$0.355 \pm 0.543 (0.864)$	pCi/L	07/13/22 18:39	7440-14-4	
Sample: DUP-FAA06/13/22 PWS:	Lab ID: 30497	424005 Collected: 06/13/22 14:00 Sample Type:	Received:	06/14/22 09:35	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical S	Gervices - Greensburg				
Radium-226	EPA 903.1	0.145 ± 0.221 (0.356) C:NA T:92%	pCi/L	07/12/22 16:49	9 13982-63-3	
	Pace Analytical S	ervices - Greensburg				
Radium-228	EPA 904.0	0.415 ± 0.372 (0.755) C:71% T:92%	pCi/L	07/06/22 13:14	1 15262-20-1	
	Pace Analytical S	ervices - Greensburg				
Total Radium	Total Radium Calculation	0.560 ± 0.593 (1.11)	pCi/L	07/13/22 18:39	7440-14-4	



QUALITY CONTROL - RADIOCHEMISTRY

Project: JEC FAL CCR Annual Radchem

Pace Project No.: 30497424

QC Batch: 511737 Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1 Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30497424001, 30497424002, 30497424003, 30497424004, 30497424005

METHOD BLANK: 2480199 Matrix: Water

Associated Lab Samples: 30497424001, 30497424002, 30497424003, 30497424004, 30497424005

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-226
 0.000 ± 0.214 (0.435) C:NA T:97%
 pCi/L
 07/12/22 16:09

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.



QUALITY CONTROL - RADIOCHEMISTRY

Project: JEC FAL CCR Annual Radchem

Pace Project No.: 30497424

QC Batch: 511738 Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0 Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30497424001, 30497424002, 30497424003, 30497424004, 30497424005

METHOD BLANK: 2480200 Matrix: Water

Associated Lab Samples: 30497424001, 30497424002, 30497424003, 30497424004, 30497424005

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-228
 0.230 ± 0.287 (0.609) C:77% T:97%
 pCi/L
 07/06/22 13:19

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.



QUALIFIERS

Project: JEC FAL CCR Annual Radchem

Pace Project No.: 30497424

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

Date: 08/01/2022 02:14 PM

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

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

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.



CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at https://info.pacelabs.com/hubfs/pas-standard-terms.pdf. Section A Section B Section C Required Client Information: Required Project Information: Invoice Information: Of Page: Company: Evergy Kansas Central, Inc. Melissa Michels, Danielle Oberbroeckling, Skaney Attention: Accounts Payable Address: Jeffrey Energy Center (JEC) Jared Morrison, Jake Humphrey, Laura Hines Company Name: EVERGY KANSAS CENTRAL, INC. 318 Kansas Ave, Topeka, KS 66612 Address: Regulatory Agency mail melissa.michels@evergy.com Purchase Order #: Pace Quote: 602-760-2463 (DO) Fax: Project Name: JEC FAL CCR Annual Radchem Pace Project Manager: skyler.richmond@pacelabs.com State / Location Requested Due Date: STD 2 WEEKS Project #: Pace Profile #: 9657, line 2 Requested Analysis Filtered (Y/N) (see valid codes to left) COLLECTED Preservatives N MATRIX SAMPLE TEMP AT COLLECTION Drinking Water Water Radium 226 + total Radium Waste Water Residual Chlorine (Y/N) Product SAMPLE ID Soll/Solid START # OF CONTAINERS One Character per box. MATRIX CODE (A-Z, 0-9/, -) Radium 228 Na2S203 Sample Ids must be unique HN03 NaOH 쯪 DATE TIME DATE TIME FAA-5-06/13/22 X X WT G FAA-3-06/13/22 х 305 х WT G FAA-4-06/13/122 Х 1215 WT G FAA-6 OC/13/22 Х wT G DUP-FAA- 06/13/22 140d Х Х wrl G 6 7 8 9 10 11 12 ADDITIONAL COMMENTS **RELINQUISHED BY / AFFILIATION** ACCEPTED BY / AFFILIATION SAMPLE CONDITIONS Mattlander Pitter 06/13/22 1630 6/14/22 DIRECT RADCHEM WORK SAMPLER NAME AND SIGNATURE ₩0#:30497424 PRINT Name of SAMPLER: d line SIGNATURE of SAMPLER: DATE Signed:

Pittsburgh Lab Sample Con	dition	Upo	n R	eceipt		
Pace Analytical Client Name:		G	2	37 .	Project # 3	6497424
Client Name.	J	7/		Puegy	Project #_>	0 111-10
Courier: Fed Ex UPS USPS Cli	ient 🗍	Comm	nercial	Page Other	<u> </u>	Label BSM
Tracking #: Missing Irading	OII. [Commi	ioroiai	Lace Office		
Custody Seal on Cooler/Box Present: ye	s 🗖	no	Seal	Is intact:	E III	IS Login ()
Thermometer Used	,			et Blue None	2 110	
Cooler Temperature Observed Temp		° C		rection Factor:	- °C Final Ten	• C
Temp should be above freezing to 6°C	- ACCOUNTS OF THE PARTY OF THE	<u></u>	COI	ection Pactor.	rinai ren	mp
				pH paper Lot#	Date and Initia	Is of person examining
Comments:	Yes	No	N/A	1000811	contents: \	131 6-17-02
Chain of Custody Present:				1.		
Chain of Custody Filled Out:	1			2.		
Chain of Custody Relinquished:	/			3.		
Sampler Name & Signature on COC:	/			4.		
Sample Labels match COC:	V			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:	V			10.		
-Pace Containers Used:						
Containers Intact:				11.		
Orthophosphate field filtered			/	12.		
Hex Cr Aqueous sample field filtered			/	13.		
Organic Samples checked for dechlorination	:			14.		
Filtered volume received for Dissolved tests		,	>	15.		
All containers have been checked for preservation.	V			16.		
exceptions: VOA, coliform, TOC, O&G, Phenolica Non-aqueous matrix	s, Radon,			76		
All containers meet method preservation requirements.				Initial when	Date/time of preservation	
	<u></u>			Lot # of added		
Lieuten en in MOA W. L. Co. C.	T			preservative		
Headspace in VOA Vials (>6mm):			-] 17. 		
Trip Blank Present:				16.		
Trip Blank Custody Seals Present Rad Samples Screened < 0.5 mrem/hr	1			Initial when		Survey Meter
		İ		completed:	Date:	SN:
Client Notification/ Resolution:						
Person Contacted:		·	Date/1	Fime:	Contacted E	By:
Comments/ Resolution:					****	
					***************************************	***
A check in this box indicates that add	litional i	nforn	natio	n has been stored in	ı ereports.	

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

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

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/_1	Pace Analytical ®	
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Pace Greensburg Lab -Sample Container Count

30497474

Client						_													Profi	le Nu	mbei		84	5 1	4				
Site	JE	FAL	cre	Anr	wal	Rada	her	1											Note										
Sample Line Item	Matrix	AG1H	AG1S	AG1T	AG2U	AG3S	AG3U	AG5U	AG5T	BG1U	BG2U	BP1N	BP10	BP2S	BP2U	врзс	BP3N	BP3S	врзи	Segg	GCUB	VG9H	VG9T	VG9U	VOAK	WGFU	WGKU	ZPLC	
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10																													
11																													
12	}																												

Container Codes

	Glas	SS	
GJN	1 Gallon Jug with HNO3	DG9S	40mL amber VOA vial H2SO4
AG5U	100mL amber glass unprserved	VG9U	40mL clear VOA vial
AG5T	100mL amber glass Na Thiosulfate	VG9T	40mL clear VOA vial Na Thiosul
GJN	1 Gallon Jug	VG9H	40mL clear VOA vial HCI
AG1S	1L amber glass H2SO4	JGFU	4oz amber wide jar
AG1H	1L amber glass HCl	WGFU	4oz wide jar unpreserved
AG1T	L amber glass Na Thiosulfate	BG2U	500mL clear glass unpreserved
BG1U	1L clear glass unpreserved	AG2U	500mL amber glass unpreserved
AG3S	250mL amber glass H2SO4	WGKU	8oz wide jar unpreserved
AG3U	250mL amber glass unpreserved		:

	Р	I
GCUB	1 Gallon Cubitainer	Γ
12GN	1/2 Gallon Cubitainer	
SP5T	120mL Coliform Na Thiosulfate	l
BP1N	1L plastic HNO3	
BP1U	1L plastic unpreserved	l
BP3S	250mL plastic H2SO4	l
BP3N	250mL plastic HNO3	l
BP3U	250mL plastic unpreserved	
BP3C	250ml plastic NAOH	l
BP2S	500mL plastic H2SO4	l
BP2U	500mL plastic unpreserved	

Suc /	IVIISC.
EZI	5g Encore
VOAK	Kit for Volatile Solid
l	Wipe/Swab
ZPLC	Ziploc Bag

WT	Water
SL	Solid
OL	Non-aqueous liquid
WP	Wipe

Quality Control Sample Performance Assessment

Ra-226 Test: Analyst: SLC 6/29/2022

Date: Batch ID: Matrix: 67275 DW

Method Blank Assessment	
MB Sample ID	2480199
MB concentration:	0.000
M/B Counting Uncertainty:	0.184
MB MDC:	0.435
MB Numerical Performance Indicator:	0.00
MB Status vs Numerical Indicator:	N/A
MR Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS67275	LCSD67275
Count Date:	7/12/2022	
Spike I.D.:	21-031	
Spike Concentration (pCi/mL):	39.889	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.811	
Target Conc. (pCi/L, g, F):	4.919	
Uncertainty (Calculated):	0.231	·
Result (pCi/L, g, F):	5.089	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	1.057	
Numerical Performance Indicator:	0.31	
Percent Recovery:	103.46%	}
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	
Upper % Recovery Limits:		
Lower % Recovery Limits:	73%	

Duplicate Sample Assessment		
Sample I.D.: Duplicate Sample I.D.: Sample Result (pCi/L, g, F): Sample Result Counting Uncertainty (pCi/L, g, F): Sample Duplicate Result (pCi/L, g, F): Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): Are sample and/or duplicate results below RL? Duplicate Numerical Performance Indicator: Duplicate RPD:	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.	
Duplicate Status vs Numerical Indicator: Duplicate Status vs RPD: % RPD Limit:		

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:	6/7/2022	
Sample I.D.	50318387002	
Sample MS I.D.		
Sample MSD I.D.	50318387004	
Spike I.D.:	21-031	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	39.891	
Spike Volume Used in MS (mL):	0.20	
Spike Volume Used in MSD (mL):	0.20	
MS Aliquot (L, g, F):	0.800	
MS Target Conc.(pCi/L, g, F):	9.969	
MSD Aliquot (L, g, F):	0.801	
MSD Target Conc. (pCi/L, g, F):	9.957	
MS Spike Uncertainty (calculated):	0.469	
MSD Spike Uncertainty (calculated):	0.468	
Sample Result:	0.366	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.340	
Sample Matrix Spike Result:	9.738	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	1.370	
Sample Matrix Spike Duplicate Result:	10.306	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	1.465	
MS Numerical Performance Indicator:	-0.787	
MSD Numerical Performance Indicator:	-0.021	
MS Percent Recovery:	94.01%	
MSD Percent Recovery:	99.83%	
MS Status vs Numerical Indicator:	N/A	
MSD Status vs Numerical Indicator:	N/A	
MS Status vs Recovery:	Pass	
MSD Status vs Recovery:	Pass	
MS/MSD Upper % Recovery Limits:	136%	
MS/MSD Lower % Recovery Limits:	71%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	50318387002
Sample MS I.D.	50318387003
Sample MSD I.D.	50318387004
Sample Matrix Spike Result:	9.738
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	1.370
Sample Matrix Spike Duplicate Result:	10.306
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	1.465
Duplicate Numerical Performance Indicator:	-0.556
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	6.00%
MS/ MSD Duplicate Status vs Numerical Indicator:	N/A
MS/ MSD Duplicate Status vs RPD:	Pass
% RPD Limit:	32%

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

Comments:



Ra-226 NELAC QC Printed: 7/12/2022 17:29



Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test:	Ra-228
Analyst:	VAL
Date:	6/30/2022
Worklist:	67276
Matrix:	WT

Method Blank Assessment		
	MB Sample ID	2480200
	MB concentration:	0.230
	M/B 2 Sigma CSU:	0.287
	MB MDC:	0.609
Ī	MB Numerical Performance Indicator:	1.57
	MB Status vs Numerical Indicator:	Pass
	MR Status vs MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
•	LCS67276	LCSD67276
Count Date:	7/6/2022	
Spike I.D.:	22-016	
Decay Corrected Spike Concentration (pCi/mL):	35.135	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.811	
Target Conc. (pCi/L, g, F):	4.332	
Uncertainty (Calculated):	0.212	
Result (pCi/L, g, F):	4.581	
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.033	
Numerical Performance Indicator:	0.46	İ
Percent Recovery:		
Status vs Numerical Indicator:	N/A	İ
Status vs Recovery:		
Upper % Recovery Limits:		
Lower % Recovery Limits:	60%	

Sample Result 2 Sigma CSU (pCi/L, g, F): Sample Duplicate Result (pCi/L, g, F):

Duplicate Numerical Performance Indicator:

Duplicate Status vs Numerical Indicator

Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F): Are sample and/or duplicate results below RL?

nter Duplicate sample IDs if other than	Matrix
CS/LCSD in space below.	
	(

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:	6/7/2022	
Sample I.D.	50318387002	
Sample MS I.D.	50318387003	
Sample MSD I.D.	50318387004	
Spike I.D.:	22-016	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	35.473	
Spike Volume Used in MS (mL):	0.20	
Spike Volume Used in MSD (mL):	0.20	
MS Aliquot (L, g, F):	0.800	1
MS Target Conc.(pCi/L, g, F):	8.865	
MSD Aliquot (L, g, F):	0.801	
MSD Target Conc. (pCi/L, g, F):	8.854	
MS Spike Uncertainty (calculated):	0.434	
MSD Spike Uncertainty (calculated):	0.434	
Sample Result:	0.719	
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.379	
Sample Matrix Spike Result:	6.797	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.409	
Sample Matrix Spike Duplicate Result:	7.135	
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.478	
MS Numerical Performance Indicator:	-3.589	
MSD Numerical Performance Indicator:	-3.014	
MS Percent Recovery:	68.56%	
MSD Percent Recovery:	72.46%	
MS Status vs Numerical Indicator:	Fail****	
MSD Status vs Numerical Indicator:	Fail****	I
MS Status vs Recovery:	Pass	
MSD Status vs Recovery:	Pass	
MS/MSD Upper % Recovery Limits:	135% 60%	
MS/MSD Lower % Recovery Limits:	00%	<u> </u>

latrix Spike/Matrix Spike Duplicate Sample Assessment		
Sample I.D.	50318387002	
Sample MS I.D.	50318387003	
Sample MSD I.D.	50318387004	
Sample Matrix Spike Result:	6.797	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.409	
Sample Matrix Spike Duplicate Result:	7.135	
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.478	
Duplicate Numerical Performance Indicator:	-0.325	
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	5.53%	
MS/ MSD Duplicate Status vs Numerical Indicator:	Pass	ĺ
MS/ MSD Duplicate Status vs RPD:	Pass	
% RPD Limit:	36%	

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

Duplicate Status vs RPD: % RPD Limit:

Duplicate RPD:

Sample I.D.: Duplicate Sample I.D. Sample Result (pCi/L, g, F):

See Below ##

Comments:

Duplicate Sample Assessment

Oh 7/1/22

MS MSD passes To recovery

****If all other QC criteria pass, this batch is acceptable. The matrix spike duplicate result indicates a possible bias for this sample only and may not be applicable to any other camples in this analytical bat





June 29, 2022

Melissa Michels Evergy, Inc. 818 Kansas Avenue Topeka, KS 66612

RE: Project: JEC FAL CCR ANNUAL Pace Project No.: 60403356

Dear Melissa Michels:

Enclosed are the analytical results for sample(s) received by the laboratory on June 14, 2022. 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@pacelabs.com (913)599-5665

alice Spiller

PM Lab Management

Enclosures

cc: Laura Hines, Evergy, Inc.
Jake Humphrey, Evergy, Inc.
Samantha Kaney, Haley & Aldrich
Jared Morrison, Evergy, Inc.
Danielle Oberbroeckling, Haley & Aldrich
Melanie Satanek, Haley & Aldrich, Inc.
JD Schlegel, Evergy, Inc.
Jacob Will, Evergy Kansas Central, Jeffrey Energy Center







CERTIFICATIONS

Project: JEC FAL CCR ANNUAL

Pace Project No.: 60403356

Pace Analytical Services Kansas

9608 Loiret Boulevard, Lenexa, KS 66219

Missouri Inorganic Drinking Water Certification #: 10090

Arkansas Drinking Water

Arkansas Certification #: 20-020-0

Arkansas Drinking Water

Illinois Certification #: 2000302021-3

Iowa Certification #: 118

Kansas/NELAP Certification #: E-10116 Louisiana Certification #: 03055 Nevada Certification #: KS000212020-2 Oklahoma Certification #: 9205/9935 Florida: Cert E871149 SEKS WET Texas Certification #: T104704407-21-15 Utah Certification #: KS000212019-9

Illinois Certification #: 004592

Kansas Field Laboratory Accreditation: # E-92587 Missouri SEKS Micro Certification: 10070



SAMPLE SUMMARY

Project: JEC FAL CCR ANNUAL

Pace Project No.: 60403356

Lab ID	Sample ID	Matrix	Date Collected	Date Received	
60403356001	FAA-5-06/13/22	Water	06/13/22 13:35	06/14/22 08:00	
60403356002	FAA-3-06/13/22	Water	06/13/22 13:05	06/14/22 08:00	
60403356003	FAA-4-06/13/22	Water	06/13/22 12:15	06/14/22 08:00	
60403356004	FAA-6-06/13/22	Water	06/13/22 14:00	06/14/22 08:00	
60403356005	DUP-FAA-06/13/22	Water	06/13/22 14:00	06/14/22 08:00	



SAMPLE ANALYTE COUNT

Project: JEC FAL CCR ANNUAL

Pace Project No.: 60403356

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60403356001	FAA-5-06/13/22	EPA 200.7	MA1	4	PASI-K
		EPA 6010	MA1	1	PASI-K
		EPA 200.8	JGP	7	PASI-K
		EPA 245.1	ALH	1	PASI-K
		EPA 300.0	KB	1	PASI-K
60403356002	FAA-3-06/13/22	EPA 200.7	MA1	4	PASI-K
		EPA 6010	MA1	1	PASI-K
		EPA 200.8	JGP	7	PASI-K
		EPA 245.1	ALH	1	PASI-K
		EPA 300.0	КВ	1	PASI-K
60403356003	FAA-4-06/13/22	EPA 200.7	MA1	4	PASI-K
		EPA 6010	MA1	1	PASI-K
		EPA 200.8	JGP	7	PASI-K
		EPA 245.1	ALH	1	PASI-K
		EPA 300.0	KB	1	PASI-K
60403356004	FAA-6-06/13/22	EPA 200.7	MA1	4	PASI-K
		EPA 6010	MA1	1	PASI-K
		EPA 200.8	JGP	7	PASI-K
		EPA 245.1	ALH	1	PASI-K
		EPA 300.0	КВ	1	PASI-K
60403356005	DUP-FAA-06/13/22	EPA 200.7	MA1	4	PASI-K
		EPA 6010	MA1	1	PASI-K
		EPA 200.8	JGP	7	PASI-K
		EPA 245.1	ALH	1	PASI-K
		EPA 300.0	KB	1	PASI-K

PASI-K = Pace Analytical Services - Kansas City



PROJECT NARRATIVE

Project: JEC FAL CCR ANNUAL

Pace Project No.: 60403356

Method: EPA 200.7

Description: 200.7 Metals, Total

Client: Evergy Kansas Central, Inc.

Date: June 29, 2022

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.



PROJECT NARRATIVE

Project: JEC FAL CCR ANNUAL

Pace Project No.: 60403356

Method: EPA 6010
Description: 6010 MET ICP

Client: Evergy Kansas Central, Inc.

Date: June 29, 2022

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.



PROJECT NARRATIVE

Project: JEC FAL CCR ANNUAL

Pace Project No.: 60403356

Method: EPA 200.8

Description: 200.8 MET ICPMS

Client: Evergy Kansas Central, Inc.

Date: June 29, 2022

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.



PROJECT NARRATIVE

Project: JEC FAL CCR ANNUAL

Pace Project No.: 60403356

Method: EPA 245.1 Description: 245.1 Mercury

Client: Evergy Kansas Central, Inc.

Date: June 29, 2022

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.



PROJECT NARRATIVE

Project: JEC FAL CCR ANNUAL

Pace Project No.: 60403356

Method: EPA 300.0

Description: 300.0 IC Anions 28 Days **Client:** Evergy Kansas Central, Inc.

Date: June 29, 2022

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:

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



Project: JEC FAL CCR ANNUAL

Pace Project No.: 60403356

Date: 06/29/2022 08:05 PM

Sample: FAA-5-06/13/22	Lab ID: 6040	3356001	Collected: 06/13/2	22 13:35	Received: 06	5/14/22 08:00 N	fatrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
200.7 Metals, Total	Analytical Meth	od: EPA 20	00.7 Preparation Met	hod: EP	A 200.7			
	Pace Analytical	Services -	Kansas City					
Barium, Total Recoverable	<0.0050	mg/L	0.0050	1	06/21/22 15:48	06/24/22 15:07	7440-39-3	
Beryllium, Total Recoverable	<0.0010	mg/L	0.0010	1	06/21/22 15:48	06/24/22 15:07	7440-41-7	
Chromium, Total Recoverable	<0.0050	mg/L	0.0050	1	06/21/22 15:48	06/24/22 15:07	7440-47-3	
Lead, Total Recoverable	<0.010	mg/L	0.010	1	06/21/22 15:48	06/24/22 15:07	7439-92-1	
6010 MET ICP	Analytical Meth	od: EPA 60	010 Preparation Meth	nod: EP/	A 3010			
	Pace Analytical	Services -	Kansas City					
Lithium, Total Recoverable	0.12	mg/L	0.010	1	06/22/22 07:45	06/24/22 15:36	7439-93-2	
200.8 MET ICPMS	Analytical Meth	od: EPA 20	00.8 Preparation Met	hod: EP	A 200.8			
	Pace Analytical	Services -	Kansas City					
Antimony, Total Recoverable	<0.0010	mg/L	0.0010	1	06/21/22 15:48	06/25/22 14:54	7440-36-0	
Arsenic, Total Recoverable	<0.0010	mg/L	0.0010	1	06/21/22 15:48	06/25/22 14:54	7440-38-2	
Cadmium, Total Recoverable	<0.00050	mg/L	0.00050	1	06/21/22 15:48	06/25/22 14:54	7440-43-9	
Cobalt, Total Recoverable	0.0012	mg/L	0.0010	1	06/21/22 15:48	06/25/22 14:54	7440-48-4	
Molybdenum, Total Recoverable	0.020	mg/L	0.0010	1	06/21/22 15:48	06/25/22 14:54	7439-98-7	
Selenium, Total Recoverable	<0.0010	mg/L	0.0010	1	06/21/22 15:48	06/25/22 14:54	7782-49-2	
Thallium, Total Recoverable	<0.0010	mg/L	0.0010	1	06/21/22 15:48	06/25/22 14:54	7440-28-0	
245.1 Mercury	Analytical Meth	od: EPA 24	15.1 Preparation Met	hod: EP	A 245.1			
•	Pace Analytical	Services -	Kansas City					
Mercury	<0.20	ug/L	0.20	1	06/28/22 07:35	06/28/22 12:53	7439-97-6	
300.0 IC Anions 28 Days	Analytical Meth	od: EPA 30	0.00					
•	Pace Analytical	Services -	Kansas City					
Fluoride	0.58	mg/L	0.20	1		06/22/22 15:00	1608/-/8-8	



Project: JEC FAL CCR ANNUAL

Pace Project No.: 60403356

Date: 06/29/2022 08:05 PM

Sample: FAA-3-06/13/22	Lab ID: 6040	03356002	Collected: 06/13/2	2 13:05	Received: 06	5/14/22 08:00 N	latrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
200.7 Metals, Total	Analytical Meth	od: EPA 20	0.7 Preparation Met	hod: EF	PA 200.7			
	Pace Analytical	l Services -	Kansas City					
Barium, Total Recoverable	0.030	mg/L	0.0050	1	06/21/22 15:48	06/24/22 15:13	7440-39-3	
Beryllium, Total Recoverable	<0.0010	mg/L	0.0010	1	06/21/22 15:48	06/24/22 15:13	7440-41-7	
Chromium, Total Recoverable	<0.0050	mg/L	0.0050	1	06/21/22 15:48	06/24/22 15:13	7440-47-3	
_ead, Total Recoverable	<0.010	mg/L	0.010	1	06/21/22 15:48	06/24/22 15:13	7439-92-1	
6010 MET ICP	Analytical Meth	od: EPA 60	10 Preparation Meth	nod: EP	A 3010			
	Pace Analytical	l Services -	Kansas City					
Lithium, Total Recoverable	0.015	mg/L	0.010	1	06/22/22 07:45	06/24/22 15:48	7439-93-2	
200.8 MET ICPMS	Analytical Meth	od: EPA 20	0.8 Preparation Met	hod: EF	PA 200.8			
	Pace Analytical	l Services -	Kansas City					
Antimony, Total Recoverable	<0.0010	mg/L	0.0010	1	06/21/22 15:48	06/25/22 15:06	7440-36-0	
Arsenic, Total Recoverable	<0.0010	mg/L	0.0010	1	06/21/22 15:48	06/25/22 15:06	7440-38-2	
Cadmium, Total Recoverable	<0.00050	mg/L	0.00050	1	06/21/22 15:48	06/25/22 15:06	7440-43-9	
Cobalt, Total Recoverable	<0.0010	mg/L	0.0010	1	06/21/22 15:48	06/25/22 15:06	7440-48-4	
Molybdenum, Total Recoverable	0.0079	mg/L	0.0010	1	06/21/22 15:48	06/25/22 15:06	7439-98-7	
Selenium, Total Recoverable	<0.0010	mg/L	0.0010	1	06/21/22 15:48	06/25/22 15:06	7782-49-2	
Гhallium, Total Recoverable	<0.0010	mg/L	0.0010	1	06/21/22 15:48	06/25/22 15:06	7440-28-0	
245.1 Mercury	Analytical Meth	od: EPA 24	5.1 Preparation Met	hod: EF	PA 245.1			
•	Pace Analytical	l Services -	Kansas City					
Mercury	<0.20	ug/L	0.20	1	06/24/22 12:49	06/27/22 10:19	7439-97-6	
300.0 IC Anions 28 Days	Analytical Meth	od: EPA 30	0.0					
-	Pace Analytical	l Services -	Kansas City					
Fluoride	<0.20	mg/L	0.20	1		06/22/22 15:14	40004 40 0	



Project: JEC FAL CCR ANNUAL

Pace Project No.: 60403356

Date: 06/29/2022 08:05 PM

Sample: FAA-4-06/13/22	Lab ID: 6040	03356003	Collected: 06/13/2	2 12:15	Received: 06	7/14/22 08:00 N	fatrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
200.7 Metals, Total	Analytical Meth	od: EPA 20	0.7 Preparation Met	hod: EF	PA 200.7			
	Pace Analytical	l Services -	Kansas City					
Barium, Total Recoverable	0.044	mg/L	0.0050	1	06/21/22 15:48	06/24/22 15:21	7440-39-3	
Beryllium, Total Recoverable	<0.0010	mg/L	0.0010	1	06/21/22 15:48	06/24/22 15:21	7440-41-7	
Chromium, Total Recoverable	<0.0050	mg/L	0.0050	1	06/21/22 15:48	06/24/22 15:21	7440-47-3	
_ead, Total Recoverable	<0.010	mg/L	0.010	1	06/21/22 15:48	06/24/22 15:21	7439-92-1	
6010 MET ICP	Analytical Meth	od: EPA 60	10 Preparation Meth	od: EP	A 3010			
	Pace Analytical	l Services -	Kansas City					
ithium, Total Recoverable	0.024	mg/L	0.010	1	06/22/22 07:45	06/24/22 15:50	7439-93-2	
200.8 MET ICPMS	Analytical Meth	od: EPA 20	0.8 Preparation Met	hod: EF	PA 200.8			
	Pace Analytical	l Services -	Kansas City					
Antimony, Total Recoverable	<0.0010	mg/L	0.0010	1	06/21/22 15:48	06/25/22 15:09	7440-36-0	
Arsenic, Total Recoverable	<0.0010	mg/L	0.0010	1	06/21/22 15:48	06/25/22 15:09	7440-38-2	
Cadmium, Total Recoverable	<0.00050	mg/L	0.00050	1	06/21/22 15:48	06/25/22 15:09	7440-43-9	
Cobalt, Total Recoverable	0.0016	mg/L	0.0010	1	06/21/22 15:48	06/25/22 15:09	7440-48-4	
Molybdenum, Total Recoverable	0.0098	mg/L	0.0010	1	06/21/22 15:48	06/25/22 15:09	7439-98-7	
Selenium, Total Recoverable	<0.0010	mg/L	0.0010	1	06/21/22 15:48	06/25/22 15:09	7782-49-2	
Γhallium, Total Recoverable	<0.0010	mg/L	0.0010	1	06/21/22 15:48	06/25/22 15:09	7440-28-0	
245.1 Mercury	Analytical Meth	od: EPA 24	5.1 Preparation Met	hod: EF	PA 245.1			
	Pace Analytical	l Services -	Kansas City					
Mercury	<0.20	ug/L	0.20	1	06/24/22 12:49	06/27/22 10:22	7439-97-6	
300.0 IC Anions 28 Days	Analytical Meth	od: EPA 30	0.0					
•	Pace Analytical							
	•		-					



Project: JEC FAL CCR ANNUAL

Pace Project No.: 60403356

Date: 06/29/2022 08:05 PM

Sample: FAA-6-06/13/22	Lab ID: 6040	03356004	Collected: 06/13/2	2 14:00	Received: 06	5/14/22 08:00 M	fatrix: Water		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua	
200.7 Metals, Total	Analytical Meth	od: EPA 20	0.7 Preparation Met	hod: EF	PA 200.7				
	Pace Analytical	Services -	Kansas City						
Barium, Total Recoverable	0.034	mg/L	0.0050	1	06/21/22 15:48	06/24/22 15:23	7440-39-3		
Beryllium, Total Recoverable	<0.0010	mg/L	0.0010	1	06/21/22 15:48	06/24/22 15:23	7440-41-7		
Chromium, Total Recoverable	< 0.0050	mg/L	0.0050	1	06/21/22 15:48	06/24/22 15:23	7440-47-3		
_ead, Total Recoverable	<0.010	mg/L	0.010	1	06/21/22 15:48	06/24/22 15:23	7439-92-1		
6010 MET ICP	Analytical Meth	od: EPA 60	10 Preparation Meth	nod: EP	A 3010				
	Pace Analytica	Services -	Kansas City						
Lithium, Total Recoverable	0.016	mg/L	0.010	1	06/22/22 07:45	06/24/22 15:52	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	06/21/22 15:48	06/25/22 15:12	7440-36-0		
Arsenic, Total Recoverable	0.0049	mg/L	0.0010	1	06/21/22 15:48	06/25/22 15:12	7440-38-2		
Cadmium, Total Recoverable	< 0.00050	mg/L	0.00050	1	06/21/22 15:48	06/25/22 15:12	7440-43-9		
Cobalt, Total Recoverable	0.0019	mg/L	0.0010	1	06/21/22 15:48	06/25/22 15:12	7440-48-4		
Molybdenum, Total Recoverable	0.17	mg/L	0.0010	1	06/21/22 15:48	06/25/22 15:12	7439-98-7		
Selenium, Total Recoverable	0.0018	mg/L	0.0010	1	06/21/22 15:48	06/25/22 15:12	7782-49-2		
Thallium, Total Recoverable	<0.0010	mg/L	0.0010	1	06/21/22 15:48	06/25/22 15:12	7440-28-0		
245.1 Mercury	Analytical Meth	od: EPA 24	5.1 Preparation Met	hod: EF	A 245.1				
-	Pace Analytical	Services -	Kansas City						
Mercury	<0.20	ug/L	0.20	1	06/24/22 12:49	06/27/22 10:28	7439-97-6		
300.0 IC Anions 28 Days	Analytical Meth	od: EPA 30	0.0						
•	Dana Amalustical	Continon	Kancac City						
	Pace Analytical	Services -	Nalisas City						



ANALYTICAL RESULTS

Project: JEC FAL CCR ANNUAL

Pace Project No.: 60403356

Date: 06/29/2022 08:05 PM

Sample: DUP-FAA-06/13/22	Lab ID: 6040	3356005	Collected: 06/13/2	2 14:00	Received: 06	5/14/22 08:00 N	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua		
200.7 Metals, Total	Analytical Meth	od: EPA 20	0.7 Preparation Met	hod: EF	PA 200.7					
	Pace Analytical	Services -	Kansas City							
Barium, Total Recoverable	0.033	mg/L	0.0050	1	06/21/22 15:48	06/24/22 15:26	7440-39-3			
Beryllium, Total Recoverable	<0.0010	mg/L	0.0010	1	06/21/22 15:48	06/24/22 15:26	7440-41-7			
Chromium, Total Recoverable	<0.0050	mg/L	0.0050	1	06/21/22 15:48	06/24/22 15:26	7440-47-3			
_ead, Total Recoverable	<0.010	mg/L	0.010	1	06/21/22 15:48	06/24/22 15:26	7439-92-1			
6010 MET ICP	Analytical Meth	od: EPA 60	10 Preparation Meth	od: EP	A 3010					
	Pace Analytical	Services -	Kansas City							
Lithium, Total Recoverable	0.016	mg/L	0.010	1	06/22/22 07:45	06/24/22 15:54	7439-93-2			
200.8 MET ICPMS	Analytical Meth	od: EPA 20	0.8 Preparation Met	hod: EF	PA 200.8					
	Pace Analytical	Services -	Kansas City							
Antimony, Total Recoverable	<0.0010	mg/L	0.0010	1	06/21/22 15:48	06/25/22 15:15	7440-36-0			
Arsenic, Total Recoverable	0.0055	mg/L	0.0010	1	06/21/22 15:48	06/25/22 15:15	7440-38-2			
Cadmium, Total Recoverable	<0.00050	mg/L	0.00050	1	06/21/22 15:48	06/25/22 15:15	7440-43-9			
Cobalt, Total Recoverable	0.0017	mg/L	0.0010	1	06/21/22 15:48	06/25/22 15:15	7440-48-4			
Molybdenum, Total Recoverable	0.20	mg/L	0.0010	1	06/21/22 15:48	06/25/22 15:15	7439-98-7			
Selenium, Total Recoverable	0.0016	mg/L	0.0010	1	06/21/22 15:48	06/25/22 15:15	7782-49-2			
Thallium, Total Recoverable	<0.0010	mg/L	0.0010	1	06/21/22 15:48	06/25/22 15:15	7440-28-0			
245.1 Mercury	Analytical Meth	od: EPA 24	5.1 Preparation Met	hod: EF	PA 245.1					
-	Pace Analytical									
Mercury	<0.20	ug/L	0.20	1	06/24/22 12:49	06/27/22 10:35	7439-97-6			
300.0 IC Anions 28 Days	Analytical Meth	od: EPA 30	0.0							
-	Pace Analytical	Services -	Kansas City							
	•									



Project: JEC FAL CCR ANNUAL

Pace Project No.: 60403356

QC Batch: 794213 Analysis Method: EPA 245.1

QC Batch Method: EPA 245.1 Analysis Description: 245.1 Mercury

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60403356002, 60403356003, 60403356004, 60403356005

METHOD BLANK: 3163947 Matrix: Water
Associated Lab Samples: 60403356002, 60403356003, 60403356004, 60403356005

Blank Reporting

Parameter Units Result Limit Analyzed Qualifiers

Mercury ug/L <0.20 0.20 06/27/22 10:08

LABORATORY CONTROL SAMPLE: 3163948

Spike LCS LCS % Rec Conc. Result % Rec Limits Qualifiers Parameter Units Mercury 4.7 93 85-115 ug/L

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3163949 3163950

MS MSD

60403356003 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Conc. Result Result % Rec **RPD** RPD Result Conc. % Rec Limits Qual 5 20 Mercury ug/L < 0.20 5 4.5 4.6 89 92 70-130 3

MATRIX SPIKE SAMPLE: 3163951

Date: 06/29/2022 08:05 PM

60403246005 MS MS % Rec Spike Qualifiers Parameter Units Result Conc. Result % Rec Limits < 0.20 5 4.1 81 70-130 Mercury ug/L

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.



Project: JEC FAL CCR ANNUAL

Pace Project No.: 60403356

Date: 06/29/2022 08:05 PM

QC Batch: 794791 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: 60403356001

METHOD BLANK: 3166275 Matrix: Water

Associated Lab Samples: 60403356001

Blank Reporting
Parameter Units Result Limit Analyzed Qualifiers

Mercury ug/L <0.20 0.20 06/28/22 12:48

LABORATORY CONTROL SAMPLE: 3166276

Spike LCS LCS % Rec Conc. Result % Rec Limits Qualifiers Parameter Units Mercury ug/L 4.8 95 85-115

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3166277 3166278

MS MSD

60403356001 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Conc. Conc. Result Result % Rec % Rec **RPD** RPD Qual Result Limits <0.20 5 20 Mercury ug/L 5 4.8 4.6 96 91 70-130 5

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.



QUALITY CONTROL DATA

Analysis Method:

Project: JEC FAL CCR ANNUAL

EPA 200.7

Pace Project No.: 60403356

QC Batch Method:

Date: 06/29/2022 08:05 PM

QC Batch: 793579

Analysis Description: 200.7 Metals, Total

Analysis Description. 200.7 Metals, Total

Laboratory: Pace Analytical Services - Kansas City

EPA 200.7

Associated Lab Samples: 60403356001, 60403356002, 60403356003, 60403356004, 60403356005

METHOD BLANK: 3161573 Matrix: Water

Associated Lab Samples: 60403356001, 60403356002, 60403356003, 60403356004, 60403356005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Barium	mg/L	<0.0050	0.0050	06/24/22 15:05	
Beryllium	mg/L	< 0.0010	0.0010	06/24/22 15:05	
Chromium	mg/L	< 0.0050	0.0050	06/24/22 15:05	
Lead	mg/L	< 0.010	0.010	06/24/22 15:05	

LABORATORY CONTROL SAMPLE:	3161574	Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Barium	mg/L	1	0.99	99	85-115	
Beryllium	mg/L	1	1.0	103	85-115	
Chromium	mg/L	1	1.0	100	85-115	
Lead	mg/L	1	1.0	101	85-115	

MATRIX SPIKE & MATRIX SF	PIKE DUPLIC	CATE: 3161	575		3161576							
			MS	MSD								
	6	0403356001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Barium	mg/L	< 0.0050	1	1	1.0	0.98	100	97	70-130	2	20	
Beryllium	mg/L	< 0.0010	1	1	0.99	0.96	99	96	70-130	2	20	
Chromium	mg/L	< 0.0050	1	1	0.98	0.96	98	96	70-130	2	20	
Lead	mg/L	< 0.010	1	1	0.97	0.95	97	95	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.



Project: JEC FAL CCR ANNUAL

Pace Project No.: 60403356

QC Batch: 793592 Analysis Method: EPA 200.8
QC Batch Method: EPA 200.8 Analysis Description: 200.8 MET

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60403356001, 60403356002, 60403356003, 60403356004, 60403356005

METHOD BLANK: 3161647 Matrix: Water

Associated Lab Samples: 60403356001, 60403356002, 60403356003, 60403356004, 60403356005

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Antimony	mg/L	<0.0010	0.0010	06/25/22 14:50	
Arsenic	mg/L	< 0.0010	0.0010	06/25/22 14:50	
Cadmium	mg/L	< 0.00050	0.00050	06/25/22 14:50	
Cobalt	mg/L	< 0.0010	0.0010	06/25/22 14:50	
Molybdenum	mg/L	< 0.0010	0.0010	06/25/22 14:50	
Selenium	mg/L	< 0.0010	0.0010	06/25/22 14:50	
Thallium	mg/L	< 0.0010	0.0010	06/25/22 14:50	

LABORATORY CONTROL SAMPLE: 3161648

Date: 06/29/2022 08:05 PM

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.04	0.038	95	85-115	
Arsenic	mg/L	0.04	0.037	92	85-115	
Cadmium	mg/L	0.04	0.038	95	85-115	
Cobalt	mg/L	0.04	0.038	95	85-115	
Molybdenum	mg/L	0.04	0.039	97	85-115	
Selenium	mg/L	0.04	0.038	95	85-115	
Thallium	mg/L	0.04	0.037	93	85-115	

MATRIX SPIKE & MATRIX	SPIKE DUPI	LICATE: 3161	649 MS	MSD	3161650							
		60403356001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Antimony	mg/L	<0.0010	0.04	0.04	0.037	0.036	91	90	70-130	1	20	
Arsenic	mg/L	< 0.0010	0.04	0.04	0.036	0.036	89	88	70-130	2	20	
Cadmium	mg/L	< 0.00050	0.04	0.04	0.034	0.033	84	83	70-130	1	20	
Cobalt	mg/L	0.0012	0.04	0.04	0.033	0.032	79	78	70-130	2	20	
Molybdenum	mg/L	0.020	0.04	0.04	0.059	0.058	99	96	70-130	2	20	
Selenium	mg/L	< 0.0010	0.04	0.04	0.043	0.043	107	106	70-130	1	20	
Thallium	mg/L	< 0.0010	0.04	0.04	0.039	0.039	98	97	70-130	1	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.



QUALITY CONTROL DATA

Project: JEC FAL CCR ANNUAL

Pace Project No.: 60403356

Date: 06/29/2022 08:05 PM

QC Batch: 793675 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60403356001, 60403356002, 60403356003, 60403356004, 60403356005

METHOD BLANK: 3161941 Matrix: Water

Associated Lab Samples: 60403356001, 60403356002, 60403356003, 60403356004, 60403356005

Blank Reporting

Parameter Units Result Limit Analyzed Qualifiers

Lithium mg/L <0.010 0.010 06/24/22 15:34

LABORATORY CONTROL SAMPLE: 3161942

Spike LCS LCS % Rec Conc. Result % Rec Limits Qualifiers Parameter Units Lithium mg/L 0.98 98 80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3161943 3161944

MS MSD

60403356002 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Conc. Result Result % Rec **RPD** RPD Qual Result Conc. % Rec Limits 0.015 0.98 20 Lithium mg/L 1.0 97 98 75-125 2

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.



Project: JEC FAL CCR ANNUAL

Pace Project No.: 60403356

QC Batch: 793624 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: 60403356001, 60403356002, 60403356003, 60403356004

METHOD BLANK: 3161785 Matrix: Water
Associated Lab Samples: 60403356001, 60403356002, 60403356003, 60403356004

Blank Reporting

Parameter Units Result Limit Analyzed Qualifiers

Fluoride mg/L <0.20 0.20 06/22/22 10:17

METHOD BLANK: 3164319 Matrix: Water

Associated Lab Samples: 60403356001, 60403356002, 60403356003, 60403356004

Blank Reporting

Parameter Units Result Limit Analyzed Qualifiers

Fluoride mg/L <0.20 0.20 06/23/22 17:20

LABORATORY CONTROL SAMPLE: 3161786

Date: 06/29/2022 08:05 PM

Spike LCS LCS % Rec Conc. Result % Rec Limits Qualifiers Parameter Units Fluoride mg/L 2.5 2.4 97 90-110

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3161787 3161788

MS MSD

60403403001 Spike Spike MS MSD MS MSD % Rec Max RPD Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits **RPD** Qual Fluoride mg/L ND 25 25 23.3 23.5 88 89 80-120 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.



Project: JEC FAL CCR ANNUAL

Pace Project No.: 60403356

QC Batch: 794380 QC Batch Method: EPA 300.0 Analysis Method: Analysis Description:

300.0 IC Anions

EPA 300.0

Laboratory:

Pace Analytical Services - Kansas City

Associated Lab Samples: 60403356005

METHOD BLANK: 3164550 Matrix: Water

Associated Lab Samples: 60403356005

Blank Reporting

 Parameter
 Units
 Result
 Limit
 Analyzed
 Qualifiers

 Fluoride
 mg/L
 <0.20</td>
 0.20
 06/27/22 08:59

METHOD BLANK: 3167602 Matrix: Water

Associated Lab Samples: 60403356005

Blank Reporting
Parameter Units Result Limit Analyzed Qualifiers

Fluoride mg/L <0.20 0.20 06/28/22 08:54

LABORATORY CONTROL SAMPLE: 3164551

Spike LCS LCS % Rec Conc. Result % Rec Limits Qualifiers Parameter Units Fluoride mg/L 2.5 2.5 100 90-110

LABORATORY CONTROL SAMPLE: 3167603

LCS LCS Spike % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Fluoride mg/L 2.5 2.5 100 90-110

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3164552 3164553

MS MSD 60403356005 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits **RPD** RPD Qual 96 Fluoride 0.58 2.5 3.0 2.5 3.0 95 80-120 15 mg/L

MATRIX SPIKE SAMPLE: 3164554

Date: 06/29/2022 08:05 PM

60403257006 Spike MS MS % Rec Parameter Units Result Conc. Result % Rec Limits Qualifiers ND Fluoride mg/L 50 46.6 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.



QUALIFIERS

Project: JEC FAL CCR ANNUAL

Pace Project No.: 60403356

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.

Date: 06/29/2022 08:05 PM



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: JEC FAL CCR ANNUAL

Pace Project No.: 60403356

Date: 06/29/2022 08:05 PM

60403356002 FAA-3-06/13/22 EPA 200.7 793579 EPA 200.7 79368 60403356003 FAA-4-06/13/22 EPA 200.7 793579 EPA 200.7 79368 60403356004 FAA-6-06/13/22 EPA 200.7 793579 EPA 200.7 79368 60403356005 DUP-FAA-06/13/22 EPA 200.7 793579 EPA 200.7 79368 60403356001 FAA-5-06/13/22 EPA 3010 793675 EPA 6010 79374 60403356002 FAA-3-06/13/22 EPA 3010 793675 EPA 6010 79374 60403356003 FAA-4-06/13/22 EPA 3010 793675 EPA 6010 79374 60403356004 FAA-6-06/13/22 EPA 3010 793675 EPA 6010 79374 60403356005 DUP-FAA-06/13/22 EPA 3010 793675 EPA 6010 79374 60403356005 DUP-FAA-06/13/22 EPA 200.8 793592 EPA 200.8 79368 60403356001 FAA-5-06/13/22 EPA 200.8 793592 EPA 200.8 79368 60403356003 FAA-4-0	Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60403356003 FAA-4-06/13/22 EPA 200.7 793579 EPA 200.7 79368 60403356004 FAA-6-06/13/22 EPA 200.7 793579 EPA 200.7 79368 60403356005 DUP-FAA-06/13/22 EPA 200.7 793579 EPA 200.7 79368 60403356001 FAA-5-06/13/22 EPA 3010 793675 EPA 6010 79374 60403356002 FAA-3-06/13/22 EPA 3010 793675 EPA 6010 79374 60403356003 FAA-4-06/13/22 EPA 3010 793675 EPA 6010 79374 60403356004 FAA-6-06/13/22 EPA 3010 793675 EPA 6010 79374 60403356005 DUP-FAA-06/13/22 EPA 3010 793675 EPA 6010 79374 60403356001 FAA-5-06/13/22 EPA 200.8 793592 EPA 200.8 79368 60403356002 FAA-3-06/13/22 EPA 200.8 793592 EPA 200.8 79368 60403356003 FAA-4-06/13/22 EPA 200.8 793592 EPA 200.8 79368 60403356004 FAA-5-06/	60403356001	FAA-5-06/13/22	EPA 200.7	793579	EPA 200.7	793684
60403356004 FAA-6-06/13/22 EPA 200.7 793579 EPA 200.7 79368 60403356005 DUP-FAA-06/13/22 EPA 200.7 793579 EPA 200.7 79368 60403356001 FAA-5-06/13/22 EPA 3010 793675 EPA 6010 79374 60403356002 FAA-3-06/13/22 EPA 3010 793675 EPA 6010 79374 60403356004 FAA-4-06/13/22 EPA 3010 793675 EPA 6010 79374 60403356005 DUP-FAA-06/13/22 EPA 3010 793675 EPA 6010 79374 60403356004 FAA-5-06/13/22 EPA 3010 793675 EPA 6010 79374 60403356005 DUP-FAA-06/13/22 EPA 3010 793675 EPA 6010 79374 60403356001 FAA-5-06/13/22 EPA 200.8 793592 EPA 6010 79374 60403356002 FAA-3-06/13/22 EPA 200.8 793592 EPA 200.8 79368 60403356003 FAA-4-06/13/22 EPA 200.8 793592 EPA 200.8 79368 60403356005 DUP-FAA-06	60403356002	FAA-3-06/13/22	EPA 200.7	793579	EPA 200.7	793684
60403356005 DUP-FAA-06/13/22 EPA 200.7 793579 EPA 200.7 793675 60403356001 FAA-5-06/13/22 EPA 3010 793675 EPA 6010 79374 60403356002 FAA-3-06/13/22 EPA 3010 793675 EPA 6010 79374 60403356003 FAA-4-06/13/22 EPA 3010 793675 EPA 6010 79374 60403356004 FAA-6-06/13/22 EPA 3010 793675 EPA 6010 79374 60403356005 DUP-FAA-06/13/22 EPA 3010 793675 EPA 6010 79374 60403356001 FAA-5-06/13/22 EPA 3010 793675 EPA 6010 79374 60403356002 FAA-3-06/13/22 EPA 200.8 793592 EPA 6010 79374 60403356002 FAA-3-06/13/22 EPA 200.8 793592 EPA 200.8 79368 60403356003 FAA-4-06/13/22 EPA 200.8 793592 EPA 200.8 79368 60403356004 FAA-5-06/13/22 EPA 200.8 793592 EPA 200.8 79368 60403356005 DUP-FAA-06/	60403356003	FAA-4-06/13/22	EPA 200.7	793579	EPA 200.7	793684
60403356001 FAA-5-06/13/22 EPA 3010 793675 EPA 6010 79374 60403356002 FAA-3-06/13/22 EPA 3010 793675 EPA 6010 79374 60403356003 FAA-4-06/13/22 EPA 3010 793675 EPA 6010 79374 60403356004 FAA-6-06/13/22 EPA 3010 793675 EPA 6010 79374 60403356005 DUP-FAA-06/13/22 EPA 3010 793675 EPA 6010 79374 60403356001 FAA-5-06/13/22 EPA 3010 793675 EPA 6010 79374 60403356002 FAA-3-06/13/22 EPA 200.8 793592 EPA 200.8 79368 60403356003 FAA-4-06/13/22 EPA 200.8 793592 EPA 200.8 79368 60403356004 FAA-6-06/13/22 EPA 200.8 793592 EPA 200.8 79368 60403356005 DUP-FAA-06/13/22 EPA 200.8 793592 EPA 200.8 79368 60403356001 FAA-5-06/13/22 EPA 200.8 793592 EPA 200.8 79368 60403356001 FAA-5-06/13/22 EPA 200.8 793592 EPA 200.8 79368 60403356001 FAA-6-06/13/22 EPA 200.8 793592 EPA 200.8 79368 60403356005 DUP-FAA-06/13/22 EPA 200.8 793592 EPA 200.8 79368 60403356001 FAA-5-06/13/22 EPA 245.1 794791 EPA 245.1 79487 60403356002 FAA-3-06/13/22 EPA 245.1 794213 EPA 245.1 79434 60403356003 FAA-4-06/13/22 EPA 245.1 794213 EPA 245.1 79434 60403356004 FAA-6-06/13/22 EPA 245.1 794213 EPA 245.1 79434 60403356005 DUP-FAA-06/13/22 EPA 245.1 794213 EPA 245.1 79434 60403356001 FAA-5-06/13/22 EPA 245.1 794213 EPA 245.1 79434 60403356002 FAA-3-06/13/22 EPA 245.1 794213 EPA 245.1 79434 60403356004 FAA-6-06/13/22 EPA 300.0 793624 60403356002 FAA-3-06/13/22 EPA 300.0 793624 60403356003 FAA-4-06/13/22 EPA 300.0 793624 60403356004 FAA-6-06/13/22 EPA 300.0 793624	60403356004	FAA-6-06/13/22	EPA 200.7	793579	EPA 200.7	793684
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60403356004 FAA-6-06/13/22 EPA 200.8 793592 EPA 200.8 79368 60403356005 DUP-FAA-06/13/22 EPA 200.8 793592 EPA 200.8 79368 60403356001 FAA-5-06/13/22 EPA 245.1 794791 EPA 245.1 79487 60403356002 FAA-3-06/13/22 EPA 245.1 794213 EPA 245.1 79434 60403356003 FAA-4-06/13/22 EPA 245.1 794213 EPA 245.1 79434 60403356004 FAA-6-06/13/22 EPA 245.1 794213 EPA 245.1 79434 60403356005 DUP-FAA-06/13/22 EPA 245.1 794213 EPA 245.1 79434 60403356001 FAA-5-06/13/22 EPA 300.0 793624 60403356002 FAA-3-06/13/22 EPA 300.0 793624 60403356003 FAA-4-06/13/22 EPA 300.0 793624 60403356004 FAA-6-06/13/22 EPA 300.0 793624 60403356004 FAA-6-06/13/22 EPA 300.0 793624	60403356002	FAA-3-06/13/22	EPA 200.8	793592	EPA 200.8	793685
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	60403356003	FAA-4-06/13/22	EPA 300.0	793624		
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WO#:60403356

1	Pace
V_{-}	ANALYTICAL SERVICES

DC#_Title: ENV-FRM-LENE-000

Revision: 2	Effective Date: 01/12/2022	Issued By: Lenexa

Kevision. 2	Effective Date: 01/12/2022	Issued by. Leffexa	
Client Name: + Vercy		-1	4.
Courier: FedEx □ UPS □ VIA □ Clay □	□ PEX □ ECI □ Pac	ce ☑ 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 B	Bags □ Foam □	None □ Other DICC	
Thermometer Used: 1399 Ty	ype of lee: Wet Blue None		STERRE: N
Cooler Temperature (°C): As-read <u>3</u> Corr	. Factor 10 Corrected	Date and initials of pe	10 6/20/2
Temperature should be above freezing to 6°C			
Chain of Custody present:	≪ÖYes □No □N/A		
Chain of Custody relinquished:	☑Yes □No □N/A		
Samples arrived within holding time:	ØYes □No □N/A		
Short Hold Time analyses (<72hr):	□Yes ZNo □N/A		
Rush Turn Around Time requested:	□Yes □No □N/A		
Sufficient volume:			
Correct containers used:	DYes □No □N/A		
Pace containers used:	☐Yes ☐No ☐N/A		
Containers intact:	©Yes □No □N/A		
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs	s? □Yes □No ZN/A		
Filtered volume received for dissolved tests?	□Yes □No ⊅N/A		
Sample labels match COC: Date / time / ID / analyses	ÚYes □No □N/A		
	Yes ONO ON/A		
Containers requiring pH preservation in compliance?		sample IDs, volumes, lot #'s of preservati	ve and the
(HNO ₃ , H ₂ SO ₄ , HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide)	. I date	e/time added.	
(Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO)	LOT#: 610 (60)		
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 Kin/A		
Headspace in VOA vials (>6mm):	□Yes □No ⊘ N/A		
Samples from USDA Regulated Area: State:	□Yes Ø No □N/A		
Additional labels attached to 5035A / TX1005 vials in the	1		
	COC to Client? Y / N	Field Data Required? Y / N	
	Date/Time:		
Comments/ Resolution:			
TE			
Project Manager Review:	Date: _		

CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section Require	Submitting a sample via this ch A d Client Information:	ain of custod Section B Required Pr				owledgm		acceptan	ice o		Pace ion C	Tern	ns an												s/pas	-star		erms.p	df.	Of	1
Compan		Report To:			Michels, D	anielle Ol	berbroeck	ling, Skar	ney	Atten	tion:	Ac	count	s Pay	able																
Address		Сору То:	Jare	ed Mo	rrison, Jal	ke Humpt	rey, Laur	a Hines		Company Name: EVERGY KANSAS CENTRAL, INC.																					
	sas Ave, Topeka, KS 66612									Addre			e Sec	tion A	\									_				Regula	atory Agen	cy	1000
	melissa michels@evergy.com	Purchase Or		_					_	_	Quot				-C-				1-	L				-				01-1			
Phone:	602-760-2463 (DO) Fax ed Due Date: STD 2 WFFKS	Project Nam	e:	JEC	FAL CCF	₹ Annual			-	_	Profi	ct Ma		7. lin		e.spi	ller@	pa	cela	DS.C	om			-				State	/ Location		
Request	ed Due Date: STD 2 WEEKS	Project #:	_				_			race	FIOII	IC ff.	900	ir, im	8 2		-		- 00	Rea	ueste	d An	alvsis	Filte	red (Y/N)	7.0	\neg	No		
	MATRIX	CODE	s to left)	C=COMP)		COLL	ECTED		z			Р	rese	rvati	ves		NA		N	N N		N									
ITEM#	SAMPLE ID One Character per box. (A-Z, 0-9 /, -) Sample Ids must be unique Drinking water Waste W. Product Soil/Solid Oil Oil Other Tissue	WT	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=	STA	ART TIME	EI DATE	ND TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HCI	NaOH	Na2S203	Methanol	Other	Alialy See 1650	300 0 Anions Fluoride	245.1 Mercury	200 8 Sb, As, Cd, Co, Mo, Se, Tl	ithium (RL <0.04						Residual Chlorine (Y/N)	91	040 [?]	35b
1	FAA-5-06/13/22		WT	G			6/13/2	1335		2	1								x	x x	(x	х									
	FAA-3- 06/13/22		wr				6/13/2	1202		2	1			Г			7	T	х	x x	×	х		П	T	Ī	П				
	FAA-4- 66/13/22		T	G			6/13/2		Т	2	i			Τ			7	t	x	x >	(x	X	П	\exists	1	Ť					
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Client: Freegy

Profile # 9 65 7 2

Site: JECFAL (CRANNUA)

Notes

COC Line Item		NG9H	резн	DG9O	NG9N	Desn	реэм	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	везо	BP1N	BP3N	ВРЗЕ	BP3S	врзс	BP3Z	WPDU	ZPLC	Other		
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9	X	6																														
10	0																														-	
11																																
12																																

Container Codes

		Glass			Plastic		Misc.
OG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar	BP1C	1L NAOH plastic	10	Wipe/Swab
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar	BP1N	1L HNO3 plastic	SP5T	120mL Coliform Na Thiosulfate
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar	BP1S	1L H2SO4 plastic	ZPLC	Ziploc Bag
OG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide	BP1U	1L unpreserved plastic	AF	Air Filter
OG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass	BP1Z	1L NaOH, Zn Acetate	С	Air Cassettes
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass	BP2C	500mL NAOH plastic	R	Terracore Kit
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass	BP2N	500mL HNO3 plastic	U	Summa Can
/G9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass	BP2S	500mL H2SO4 plastic		
/G9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic	7	
/G9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Acetate		88-1-1
3G1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass	BP3C	250mL NaOH plastic	7	Matrix
3G1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic - field filtered	WT	Water
3G3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic	SL	Solid
3G3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass	BP3U	250mL unpreserved plastic	NAL	Non-aqueous Liquid
NGDU	16oz clear soil jar	AG4U	125mL unpres amber glass	BP3S	250mL H2SO4 plastic	OL	OIL
		AG5U	100mL unpres amber glass	BP3Z	250mL NaOH, Zn Acetate	WP	Wipe
				BP4U	125mL unpreserved plastic	DW	Drinking Water
				BP4N	125mL HNO3 plastic		-
				BP4S	125mL H2SO4 plastic	⊣ .	

WPDU

16oz unpresserved plstic

Work Order Number:

66403356

ATTACHMENT 2-3 September 2022 Semi-Annual Sampling Event Laboratory Analytical Report





October 14, 2022

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

RE: Project: JEC MW-FAA-5

Pace Project No.: 60409975

Dear Jake Humphrey:

Enclosed are the analytical results for sample(s) received by the laboratory on September 09, 2022. 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 10/12/22 uniform reporting units

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

Sincerely,

Alice Spiller

alice.spiller@pacelabs.com (913)599-5665

Alice Spiller

PM Lab Management

Enclosures

cc: Laura Hines, Evergy, Inc. Samantha Kaney, Haley & Aldrich Melissa Michels, Evergy, Inc.

Danielle Oberbroeckling, Haley & Aldrich







CERTIFICATIONS

Project: JEC MW-FAA-5
Pace Project No.: 60409975

Pace Analytical Services Kansas

9608 Loiret Boulevard, Lenexa, KS 66219

Missouri Inorganic Drinking Water Certification #: 10090

Arkansas Drinking Water Arkansas Certification #: 22-031-0

Arkansas Drinking Water

Illinois Certification #: 2000302021-3

Iowa Certification #: 118

Kansas/NELAP Certification #: E-10116 Louisiana Certification #: 03055 Nevada Certification #: KS000212020-2 Oklahoma Certification #: 9205/9935 Florida: Cert E871149 SEKS WET Texas Certification #: T104704407-21-15 Utah Certification #: KS000212019-9 Illinois Certification #: 004592

Kansas Field Laboratory Accreditation: # E-92587 Missouri SEKS Micro Certification: 10070



SAMPLE SUMMARY

Project: JEC MW-FAA-5
Pace Project No.: 60409975

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60409975001	MW-FAA-5-090822	Water	09/08/22 10:55	09/09/22 16:30



SAMPLE ANALYTE COUNT

Project: JEC MW-FAA-5
Pace Project No.: 60409975

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60409975001	MW-FAA-5-090822	EPA 200.7	MA1	6	PASI-K
		EPA 6010	MRV	1	PASI-K
		EPA 200.8	JGP	7	PASI-K
		EPA 245.1	ALH	1	PASI-K
		SM 2540C	TML	1	PASI-K
		SM 4500-H+B	ET	1	PASI-K
		EPA 300.0	CRN2, RKA	3	PASI-K

PASI-K = Pace Analytical Services - Kansas City



PROJECT NARRATIVE

Project: JEC MW-FAA-5
Pace Project No.: 60409975

Method: EPA 200.7

Description: 200.7 Metals, Total

Client: Evergy Kansas Central, Inc.

Date: October 14, 2022

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: 807376

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60409977001,60409979005

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

- MS (Lab ID: 3211939)
 - Calcium
- MS (Lab ID: 3211941)
 - Calcium
- MSD (Lab ID: 3211940)
 - Calcium

Additional Comments:



PROJECT NARRATIVE

Project: JEC MW-FAA-5
Pace Project No.: 60409975

Method: EPA 6010
Description: 6010 MET ICP

Client: Evergy Kansas Central, Inc.

Date: October 14, 2022

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.



PROJECT NARRATIVE

Project: JEC MW-FAA-5
Pace Project No.: 60409975

Method: EPA 200.8

Description: 200.8 MET ICPMS

Client: Evergy Kansas Central, Inc.

Date: October 14, 2022

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.



PROJECT NARRATIVE

Project: JEC MW-FAA-5
Pace Project No.: 60409975

Method: EPA 245.1 Description: 245.1 Mercury

Client: Evergy Kansas Central, Inc.

Date: October 14, 2022

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.

Duplicate Sample:

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



PROJECT NARRATIVE

Project: JEC MW-FAA-5
Pace Project No.: 60409975

Method: SM 2540C

Description: 2540C Total Dissolved Solids **Client:** Evergy Kansas Central, Inc.

Date: October 14, 2022

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.



PROJECT NARRATIVE

Project: JEC MW-FAA-5
Pace Project No.: 60409975

Method: SM 4500-H+B

Description: 4500H+ pH, Electrometric **Client:** Evergy Kansas Central, Inc.

Date: October 14, 2022

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.

• MW-FAA-5-090822 (Lab ID: 60409975001)

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.



PROJECT NARRATIVE

Project: JEC MW-FAA-5
Pace Project No.: 60409975

Method: EPA 300.0

Description: 300.0 IC Anions 28 Days **Client:** Evergy Kansas Central, Inc.

Date: October 14, 2022

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.

QC Batch: 811017

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60409975001,60409979004

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

- MS (Lab ID: 3225334)
 - Fluoride
- MS (Lab ID: 3225336)
 - Fluoride

Additional Comments:

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



ANALYTICAL RESULTS

Project: JEC MW-FAA-5
Pace Project No.: 60409975

Date: 10/14/2022 12:08 PM

Sample: MW-FAA-5-090822	Lab ID: 604	109975001	Collected: 09/08/2	22 10:55	Received: 09	/09/22 16:30	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
200.7 Metals, Total	Analytical Met	thod: EPA 20	0.7 Preparation Met	hod: EP	A 200.7			
	Pace Analytic	al Services -	Kansas City					
Barium, Total Recoverable	<0.0050	mg/L	0.0050	1	09/13/22 12:55	09/14/22 11:23	3 7440-39-3	
Beryllium, Total Recoverable	<0.0010	mg/L	0.0010	1	09/13/22 12:55			
Boron, Total Recoverable	1.6	mg/L	0.10	1	09/13/22 12:55	09/14/22 11:23	3 7440-42-8	
Calcium, Total Recoverable	471	mg/L	0.20	1	09/13/22 12:55	09/14/22 11:23	3 7440-70-2	
Chromium, Total Recoverable	<0.0050	mg/L	0.0050	1	09/13/22 12:55	09/14/22 11:23	3 7440-47-3	
Lead, Total Recoverable	<0.010	mg/L	0.010	1	09/13/22 12:55	09/14/22 11:23	3 7439-92-1	
6010 MET ICP	Analytical Met	thod: EPA 60	010 Preparation Met	nod: EPA	A 3010			
	Pace Analytic	al Services -	Kansas City					
Lithium, Total Recoverable	0.16	mg/L	0.010	1	09/13/22 13:26	09/15/22 12:03	3 7439-93-2	
200.8 MET ICPMS	Analytical Met	thod: EPA 20	0.8 Preparation Met	hod: EP	A 200.8			
	Pace Analytic	al Services -	Kansas City					
Antimony, Total Recoverable	<0.0010	mg/L	0.0010	1	09/13/22 13:26	09/19/22 17:25	5 7440-36-0	
Arsenic, Total Recoverable	<0.0010	mg/L	0.0010	1	09/13/22 13:26			
Cadmium, Total Recoverable	<0.00050	mg/L	0.00050	1	09/13/22 13:26			
Cobalt, Total Recoverable	0.0033	mg/L	0.0010	1	09/13/22 13:26	09/19/22 17:25	5 7440-48-4	
Molybdenum, Total Recoverable	0.026	mg/L	0.0010	1	09/13/22 13:26	09/19/22 17:25	7439-98-7	
Selenium, Total Recoverable	<0.0010	mg/L	0.0010	1	09/13/22 13:26	09/19/22 17:25	7782-49-2	
Thallium, Total Recoverable	<0.0010	mg/L	0.0010	1	09/13/22 13:26	09/19/22 17:25	5 7440-28-0	
245.1 Mercury	Analytical Met	thod: EPA 24	5.1 Preparation Met	hod: EP	A 245.1			
•	Pace Analytic	al Services -	Kansas City					
Mercury	<0.00020	mg/L	0.00020	1	09/20/22 14:19	09/21/22 09:02	2 7439-97-6	
2540C Total Dissolved Solids	Analytical Met	thod: SM 25	40C					
20 100 Total Bioconton Conne	Pace Analytic							
Total Dissolved Solids	3780	mg/L	100	1		09/15/22 11:20)	
4500H+ pH, Electrometric	Analytical Met	thod: SM 450	00-H+B					
• /	Pace Analytic	al Services -	Kansas City					
pH at 25 Degrees C	7.2	Std. Units	0.10	1		09/12/22 11:28	3	H6
300.0 IC Anions 28 Days	Analytical Met	thod: EPA 30	0.00					
	Pace Analytic							
Chloride	83.1	mg/L	10.0	10		09/14/22 15:58	3 16887-00-6	
Fluoride	<0.20	mg/L	0.20	1		10/05/22 11:53		M1
Sulfate	2160	mg/L	500	500		09/15/22 16:53		4



Project: JEC MW-FAA-5
Pace Project No.: 60409975

QC Batch: 808530 Analysis Method: EPA 245.1

QC Batch Method: EPA 245.1 Analysis Description: 245.1 Mercury

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60409975001

METHOD BLANK: 3216171 Matrix: Water

Associated Lab Samples: 60409975001

Blank Reporting
Parameter Units Result Limit Analyzed Qualifiers

Mercury mg/L <0.00020 0.00020 09/21/22 08:48

LABORATORY CONTROL SAMPLE: 3216172

Spike LCS LCS % Rec Conc. Result % Rec Limits Qualifiers Parameter Units mg/L Mercury 0.005 0.0056 111 85-115

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3216173 3216174

MS MSD

60409921001 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Conc. Result Result % Rec % Rec **RPD** RPD Qual Result Conc. Limits 20 Mercury mg/L 0.37 ug/L 0.005 0.005 0.0057 0.0054 107 100 70-130

SAMPLE DUPLICATE: 3217042

Date: 10/14/2022 12:08 PM

 Parameter
 Units
 60410007001 Result
 Dup Result
 Max Result
 RPD
 Qualifiers

 Mercury
 mg/L
 ND
 <0.00020</td>
 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.



Project: JEC MW-FAA-5 Pace Project No.: 60409975

QC Batch: 807376

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: 60409975001

METHOD BLANK: 3211937

Date: 10/14/2022 12:08 PM

Matrix: Water

Associated Lab Samples: 60409975001

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Barium	mg/L	<0.0050	0.0050	09/14/22 10:36	
Beryllium	mg/L	< 0.0010	0.0010	09/14/22 10:36	
Boron	mg/L	<0.10	0.10	09/14/22 10:36	
Calcium	mg/L	<0.20	0.20	09/14/22 10:36	
Chromium	mg/L	< 0.0050	0.0050	09/14/22 10:36	
Lead	mg/L	< 0.010	0.010	09/14/22 10:36	

LABORATORY CONTROL SAMPLE:	3211938					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Barium	mg/L		0.99	99	85-115	
Beryllium	mg/L	1	1.0	102	85-115	
Boron	mg/L	1	0.97	97	85-115	
Calcium	mg/L	10	9.9	99	85-115	
Chromium	mg/L	1	0.97	97	85-115	
Lead	mg/L	1	1.0	101	85-115	

MATRIX SPIKE & MATRIX S	SPIKE DUPLIC	ATE: 3211	939		3211940							
			MS	MSD								
	6	0409977001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Barium	mg/L	0.062	1	1	1.0	1.0	97	96	70-130	1	20	
Beryllium	mg/L	< 0.0010	1	1	0.96	0.94	95	94	70-130	1	20	
Boron	mg/L	< 0.10	1	1	1.0	1.0	95	95	70-130	0	20	
Calcium	mg/L	159	10	10	162	156	25	-33	70-130	4	20	M1
Chromium	mg/L	< 0.0050	1	1	0.95	0.95	95	95	70-130	1	20	
Lead	mg/L	<0.010	1	1	0.99	0.98	98	98	70-130	0	20	

MATRIX SPIKE SAMPLE:	3211941						
		60409979005	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Barium	mg/L	0.015	1	1.0	101	70-130	
Beryllium	mg/L	< 0.0010	1	0.92	92	70-130	
Boron	mg/L	11.1	1	11.9	83	70-130	
Calcium	mg/L	584	10	586	25	70-130 M1	
Chromium	mg/L	< 0.0050	1	0.98	98	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.



Date: 10/14/2022 12:08 PM

QUALITY CONTROL DATA

Project: JEC MW-FAA-5
Pace Project No.: 60409975

MATRIX SPIKE SAMPLE:	3211941						
		60409979005	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Lead	mg/L	<0.010		0.98	98	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.



Project: JEC MW-FAA-5 Pace Project No.: 60409975

QC Batch: 807378
QC Batch Method: EPA 200.8

Analysis Method: EPA 200.8

Analysis Description: 200.8 MET Laboratory: Pace Analy

Pace Analytical Services - Kansas City

Associated Lab Samples: 60409975001

METHOD BLANK: 3211946

Date: 10/14/2022 12:08 PM

Matrix: Water

Associated Lab Samples: 60409975001

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Antimony	mg/L	<0.0010	0.0010	09/19/22 17:17	
Arsenic	mg/L	< 0.0010	0.0010	09/19/22 17:17	
Cadmium	mg/L	< 0.00050	0.00050	09/19/22 17:17	
Cobalt	mg/L	< 0.0010	0.0010	09/19/22 17:17	
Molybdenum	mg/L	< 0.0010	0.0010	09/19/22 17:17	
Selenium	mg/L	< 0.0010	0.0010	09/19/22 17:17	
Thallium	ma/l	< 0.0010	0.0010	09/19/22 17:17	

LABORATORY CONTROL SAMPLE: 3211947

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.04	0.040	101	85-115	
Arsenic	mg/L	0.04	0.040	99	85-115	
Cadmium	mg/L	0.04	0.042	105	85-115	
Cobalt	mg/L	0.04	0.039	98	85-115	
Molybdenum	mg/L	0.04	0.040	101	85-115	
Selenium	mg/L	0.04	0.042	106	85-115	
Thallium	mg/L	0.04	0.036	89	85-115	

MATRIX SPIKE & MATRIX	SPIKE DUP	LICATE: 3211		1400	3211949							
Parameter	Units	60409975001 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	0.038	0.038	94	95	70-130	1	20	
Arsenic	mg/L	< 0.0010	0.04	0.04	0.039	0.040	96	97	70-130	1	20	
Cadmium	mg/L	< 0.00050	0.04	0.04	0.036	0.036	90	91	70-130	1	20	
Cobalt	mg/L	0.0033	0.04	0.04	0.044	0.044	101	101	70-130	0	20	
Molybdenum	mg/L	0.026	0.04	0.04	0.070	0.071	108	111	70-130	2	20	
Selenium	mg/L	< 0.0010	0.04	0.04	0.040	0.040	98	99	70-130	1	20	
Thallium	mg/L	< 0.0010	0.04	0.04	0.035	0.036	88	89	70-130	1	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.



QUALITY CONTROL DATA

Project: JEC MW-FAA-5
Pace Project No.: 60409975

QC Batch: 807381 Analysis Method: QC Batch Method: EPA 3010 Analysis Descript

Analysis Description: 6010 MET

Laboratory: Pace Analytical Services - Kansas City

EPA 6010

Associated Lab Samples: 60409975001

METHOD BLANK: 3211956 Matrix: Water

Associated Lab Samples: 60409975001

Date: 10/14/2022 12:08 PM

Blank Reporting
Parameter Units Result Limit Analyzed Qualifiers

Lithium mg/L <0.010 0.010 09/15/22 11:46

LABORATORY CONTROL SAMPLE: 3211957

Spike LCS LCS % Rec Conc. Result % Rec Limits Qualifiers Parameter Units Lithium mg/L 0.94 94 80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3211958 3211959

MS MSD

60410048005 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Conc. Conc. Result Result % Rec % Rec Limits **RPD** RPD Qual Result 1730 ug/L 20 Lithium mg/L 2.5 2.5 81 76 75-125 2

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.



Project: JEC MW-FAA-5
Pace Project No.: 60409975

QC Batch: 807819 Analysis Method: SM 2540C

QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60409975001

METHOD BLANK: 3213723 Matrix: Water

Associated Lab Samples: 60409975001

Blank Reporting
Parameter Units Result Limit Analyzed Qualifiers

Total Dissolved Solids mg/L <5.0 5.0 09/15/22 11:19

LABORATORY CONTROL SAMPLE: 3213724

Spike LCS LCS % Rec Conc. Result % Rec Limits Qualifiers Parameter Units **Total Dissolved Solids** mg/L 1000 1040 104 80-120

SAMPLE DUPLICATE: 3213725

60409826001 Dup Max Parameter Units Result Result **RPD RPD** Qualifiers 571 **Total Dissolved Solids** mg/L 552 3 10

SAMPLE DUPLICATE: 3213726

Date: 10/14/2022 12:08 PM

60410000001 Dup Max RPD RPD Parameter Units Result Result Qualifiers Total Dissolved Solids 1170 1200 10 mg/L 3

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.



Project:

JEC MW-FAA-5

Pace Project No.:

60409975

QC Batch: QC Batch Method:

807086

SM 4500-H+B

Analysis Method:

SM 4500-H+B

Analysis Description:

4500H+B pH

Laboratory:

Pace Analytical Services - Kansas City

Associated Lab Samples:

Parameter

SAMPLE DUPLICATE: 3210910

60409975001

60409717001 Units Result

Dup Result

RPD

Max RPD

Qualifiers

pH at 25 Degrees C

Date: 10/14/2022 12:08 PM

Std. Units

9.0

9.0

0

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.



Project:

Pace Project No.:

METHOD BLANK: 3214382

60409975001

Associated Lab Samples:

Date: 10/14/2022 12:08 PM

JEC MW-FAA-5

60409975

QUALITY CONTROL DATA

QC Batch: 807422 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: 60409975001 METHOD BLANK: 3212221 Matrix: Water Associated Lab Samples: 60409975001 Blank Reporting Limit Qualifiers Parameter Units Result Analyzed Chloride mg/L <1.0 1.0 09/13/22 10:15 Sulfate mg/L <1.0 1.0 09/13/22 10:15 METHOD BLANK: 3213161 Matrix: Water Associated Lab Samples: 60409975001 Reporting Blank Parameter Units Result Limit Analyzed Qualifiers Chloride <1.0 1.0 09/14/22 08:49 mg/L Sulfate 09/14/22 08:49 mg/L <1.0 1.0

Matrix: Water

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<1.0	1.0	09/15/22 08:54	
Sulfate	mg/L	<1.0	1.0	09/15/22 08:54	

LABORATORY CONTROL SAMPLE:	3212222					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Chloride	mg/L	5	4.7	95	90-110	
Sulfate	mg/L	5	4.9	98	90-110	

LABORATORY CONTROL SAMPLE:	3213162					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Chloride	mg/L		4.9	97	90-110	
Sulfate	mg/L	5	5.1	103	90-110	

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.



Project: JEC MW-FAA-5
Pace Project No.: 60409975

Parameter

Date: 10/14/2022 12:08 PM

Chloride

Sulfate

Units

mg/L

mg/L

LABORATORY CONTROL SAMPI	.E: 3	214383	0 "				0/ 5					
Doromotor		Units	Spike		_	LCS	% Rec Limits		Ouglifiana			
Parameter		Units	Conc.	Res		% Rec	_ LITTII	is (Qualifiers	_		
Chloride		mg/L		5	4.8	9	5 9	90-110				
Sulfate		mg/L		5	4.8	9	7 9	90-110				
MATRIX SPIKE & MATRIX SPIKE	DUPLI	CATE: 3212	223 MS	MSD	3212224							
	(60409918001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Jnits	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Chloride	ng/L	3.6J	25	25	24.2	25.4	82	87	80-120	5	15	
Sulfate	ng/L	27.5	25	25	49.2	51.2	87	95	80-120	4	15	
MATRIX SPIKE SAMPLE:	3	212225										
			60409	9979002	Spike	MS		MS	% Rec			

Conc.

50

250

Result

119

655

% Rec

98

112

Limits

80-120

80-120

Qualifiers

Result

69.8

376

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.



Project: JEC MW-FAA-5
Pace Project No.: 60409975

QC Batch: 811017 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: 60409975001

METHOD BLANK: 3225332 Matrix: Water

Associated Lab Samples: 60409975001

Parameter Units Result Limit Analyzed Qualifiers

Fluoride mg/L <0.20 0.20 10/05/22 11:28

LABORATORY CONTROL SAMPLE: 3225333

Date: 10/14/2022 12:08 PM

Spike LCS LCS % Rec Conc. Result % Rec Limits Qualifiers Parameter Units Fluoride 2.5 2.5 100 90-110 mg/L

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3225334 3225335

MSD MS 60409975001 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Conc. Conc. Result Result % Rec % Rec **RPD** RPD Qual Result Limits 15 M1 Fluoride mg/L < 0.20 2.5 2.5 2.1 2.2 77 81 80-120

MATRIX SPIKE SAMPLE: 3225336 60409979004 MS MS % Rec Spike Parameter Units Result Conc. Result % Rec Limits Qualifiers < 0.20 Fluoride 2.5 1.0 37 80-120 M1 mg/L

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.



QUALIFIERS

Project: JEC MW-FAA-5
Pace Project No.: 60409975

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

Date: 10/14/2022 12:08 PM

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.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: JEC MW-FAA-5
Pace Project No.: 60409975

Date: 10/14/2022 12:08 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60409975001	MW-FAA-5-090822	EPA 200.7	807376	EPA 200.7	807452
60409975001	MW-FAA-5-090822	EPA 3010	807381	EPA 6010	807426
60409975001	MW-FAA-5-090822	EPA 200.8	807378	EPA 200.8	807423
60409975001	MW-FAA-5-090822	EPA 245.1	808530	EPA 245.1	808691
60409975001	MW-FAA-5-090822	SM 2540C	807819		
60409975001	MW-FAA-5-090822	SM 4500-H+B	807086		
60409975001	MW-FAA-5-090822	EPA 300.0	807422		
60409975001	MW-FAA-5-090822	EPA 300.0	811017		

WO#:60409975





DC#_Title: ENV-FRM-LENE-0009_Sample Cond

		60409975	
Revision: 2	Effective Date: 01/12/2022	Issued By: Lenexa	

Client Name: Everyy Kansas Central In		
	PEX 🗆 ECI 🗆	Pace ☑ Xroads □ Client □ Other □
Tracking #: Pace	e Shipping Label Us	ed? Yes Ø No □
Custody Seal on Cooler/Box Present: Yes ∠ No □	Seals intact: Yes	☑ No □
Packing Material: Bubble Wrap ☐ Bubble Bags ☐	_	
	Ice: Web Blue N	
Cooler Temperature (°C): As-read/_ Corr. Factor	or <u>0.0</u> Corre	cted 1.40 Date and initials of person examining contents: 45 9/9/2 2
Temperature should be above freezing to 6°C		
Chain of Custody present:	ZYes □No □N/A	
Chain of Custody relinquished:	☑Yes □No □N/A	
Samples arrived within holding time:	ZYes □No □N/A	
Short Hold Time analyses (<72hr):	□Yes ℤ No □N/A	
Rush Turn Around Time requested:	□Yes ZNo □N/A	
Sufficient volume:	☑Yes □No □N/A	
Correct containers used:	ØYes □No □N/A	
Pace containers used:	ØYes □No □N/A	
Containers intact:	Ø Yes □No □N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	□Yes □No ØN/A	
Filtered volume received for dissolved tests?	□Yes □No ØN/A	
Sample labels match COC: Date / time / ID / analyses	Øyes □No □N/A	
Samples contain multiple phases? Matrix:	□Yes ZNo □N/A	
Containers requiring pH preservation in compliance? (HNO ₃ , H ₂ SO ₄ , HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide)	⊠Yes □No □N/A	List sample IDs, volumes, lot #'s of preservative and the date/time added.
(Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO) Cyanide water sample checks:	55192	
Lead acetate strip turns dark? (Record only)	□Yes □No	
Potassium iodide test strip turns blue/purple? (Preserve)	□Yes □No	
Trip Blank present:	□Yes □No ℤ N/A	
Headspace in VOA vials (>6mm):	□Yes □No Z N/A	
Samples from USDA Regulated Area: State:	□Yes □No Z N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	□Yes □No Z N/A	
Client Notification/ Resolution: Copy COC to	Client? Y / N	Field Data Required? Y / N
Person Contacted: Date/Tir	me:	
Comments/ Resolution:		
Project Manager Review:	Def	
	Dat	



CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Address: 400 Suite 545, Phoenix Email: skaney@ Phone: (60 Requested Due Di	vergy Kansas Central, Inc. 00 E Van Buren St iix, AZ 85004 @haleyaldrich.com 02)760-2441 Fax:	Report To: Copy To: Purchase Ord Project Name	Saman Melissa	tha Kaney,	Danielle (Oberbroec	klina	_		e mio	rmatic	11;													Pag	e:	1		
Address: 400 Suite 545, Phoenix Email: skaney@ Phone: (60 Requested Due Di	00 E Van Buren St iix, AZ 85004 @haleyaldrich.com 02)760-2441 Fax:	Copy To: Purchase Ore	Melissa	Michaels,	Laura Hir	y, Danielle Oberbroeckling Attention: Accounts Payable s, Laura Hines, Jake Humphrey Company Name: Evergy Kansas Central, Inc.					Λοσο	unte l	Javah	lo.	-	_	-	_	-	_	_	_						Of	1
Email: skaney@ Phone: (60 Requested Due Di	@haleyaldrich.com 02)760-2441 Fax:	Purchase Or		To: Melissa Michaels, Laura Hines, Jake Humphrey											entral	Inc	_		_			-							
Phone: (60 Requested Due Di	02)760-2441 Fax:		der#				, ,		Addre		See			000	-cimai	1110,						_	100		B	eculat	tory Agend	27	
Requested Due Da		Project Name							Pace	Quote						_						_				_	ındwater	· ·	
	Oate:		: М	W-FAA-5					Pace	Projec	Mana	ger:	ali	ice.sp	iller@	pace	abs.c	om,					-	10			/ Location		
		Project #:							Pace	Profile	#: 9	9657															KS		
				-				_										Re	quest	ed An	alysis	Filter	ed (Y/	N)		500		- 8	
	MATRIX Drinking W		cades to left)		COLL	ECTED		NOI			Pre	serv	ative	s			_	_	N 1	<u> </u>						F.			
	SAMPLE ID Water W	P SL OL	(see valid codes to left)	, ST.	ART	EN	ID	AT COLLECTION	RS							Test	245 1/6010*	F S	Solids (10							ne (Y/N)		-16	
l l	One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique Wipe Air Other Tissue	WP AR OT TS	MATRIX CODE SAMPLE TYPE	DATE	TIME	DATE	TIME	SAMPLE TEMP /	# OF CONTAINERS	Unpreserved H2SO4	HNO3	HCI	NaOH Na2S203	Methanol	Other	8	200 7 / 200 8/	300 0 Anions CI,F.S	Total Dissolved Solids (105	5						Residual Chlorine (Y/N)	604	09975	8
1	MW-FAA-5-090822		WT G			9/8/22	10:55		5	3	2	Т			П	П	х	x	x ,	T	П		П	П	Т	П			
2	WW 170 C C C C C C C C C C C C C C C C C C C		111			510122	10.55		1	3	-	1		T	Ħ	ı	$\hat{}$	^+	<u> </u>		H	-	1		+	11			
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	ADDITIONAL COMMENTS	The second	ELINQU	ISHED BY / .	AFFILIATIO	ON	DATE		TI	ME			AC	CEPT	ED BY	/ AFF	ILIATI	ON	W			ATE		TIME			SAMPLE C	ONDITIONS	
200.7/200.8 Be,B,Ca	a,Sb,As,Ba,Cd,Cr.Co,Pb.Mo,Se,Tl, Hg		Jaso	n R. Frank	s / SCS		9/9/202	22	14	1:00	,	1	1			=	\leq	_			9/	9	1	670	1	46	Y	1	r
6010 Li								_			_										/		1		+			53	
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Pag					SAMPLE	R NAME	AND SIGN	IATU	RE					Α,				Ų.									uo		
Page 26 of 29						NT Name			1.	,	R	1	1	6	_	Jaso	n R		s Signe	ed:		9/9	9/2022		- 1	TEMP in C	ъ I	Custody Sealed Cooler (Y/N)	Samples intact (Y/N)

(૭૫૫૦૧૧૧૬ Pace Container Order #986165

Order By : Company Ever			Chin 7	- ·			Retur	To:
Company Ever		oo Control Ino	Ship 7	SCS Engineers				Pace Analytical Kansas
Contact Kane				Franks, Jason			_	Spiller, Alice
· ·				jfranks@scsenginee	re com		-	alice.spiller@pacelabs.com
+		eyaldrich.com		8575 W 110th St	13.00111		_	9608 Loiret Blvd.
Address 400 I		illen St	Address 2				Address 2	OGG Edilot Biva.
) 				Overland Park			_	Lenexa
City Phoe		p 85004	State		10		= State	
State AZ Phone (602)				(913) 749-0716	10		_	(913)599-5665
							_	N
Info								
Project Na	ame MW	-FAA-5	Due Date	09/02/2022		9657,	10	Quote
Project Mana	ager Spill	er, Alice R	eturn Date		Carrie	Courie	er	Location KS
─ Trip Blank:	s ————————————————————————————————————	nks		Bottle Labels Blank X Pre-Printed N Pre-Printed N	lo Sampl		Bo	ttles Boxed Cases Individually Wrapped Grouped By Sample ID/Matrix
Return Sh No Ship with Sh COC Option	ipper hipper			Misc Sampling Ins X Custody Sea Temp. Blank X Coolers	l		-	Extra Bubble Wrap Short Hold/Rush Stickers DI Water Liter(s) USDA Regulated Soils
Numbe	er of Blank inted	ks		Syringes				J.
X Pre-Pri	inted	Test	Containe		Total	# of	Lot#	Notes
X Pre-Pri	inted latrix		Containe	r	Total	# of	Lot #	Notes
X Pre-Pri	inted latrix	Test		r				Notes
# of Samples Mail 1 Will 1 Will 1 Will 1 Will 1	Inted Alatrix /T 2 /T 3	Test 200,7 / 200.8 / 6010 300.0 Anions Fotal Dissolved Solids (TDS)	250 mL nitr 250mL plas 1-1L Plastic	r ic stic unpres	2	0 0	071122-2EIZ 071122-2EJC 072522-2EFB	Notes
# of Samples Ma	Inted Alatrix /T 2 /T 3	Test 200,7 / 200.8 / 6010 300.0 Anions	250 mL nitr	r ic stic unpres	2	0	071122-2EIZ 071122-2EJC	Notes
# of Samples Ma 1 W' 1 W' 1 W' 1 W' 1 w' 1 w' 1 w' 1 w' 1 w' 1 w' 1 w' 1 w	Inted Atrix T 2 T 3 T 7 T 4 T 5 T 6 T 7 T 7 T 7 T 7 T 7 T 7 T 8 T 8	Test 200,7 / 200.8 / 6010 300.0 Anions Total Dissolved Solids (TDS) DH Dping Placard In F Mon-Fri 7:00am-6:00pm ar e right to return hazardous, e right to charge for unused ays.	250 mL nitr 250mL plas 1-1L Plastic 250 mL pla Place: N ad Sat 8:00a toxic, or rad bottles, as v	r ic stic unpres c Unpreserved stic NO am-2:00pm unless specioactive samples to y well as cost associated	2 1 1 1	0 0 0 0	071122-2EIZ 071122-2EJC 072522-2EFB 071122-2EJC	USE: Ship Date: Prepared By: Verified By:
# of Samples Ma 1 W' 1 W' 1 W' 1 W' 1 W' 2 W' 2 W' 2 W' 3 W' 4 W' 4 W' 4 W' 5 W' 6 W' 6 W' 6 W' 6 W' 6 W' 6 W' 6 W' 6	Inted Matrix	Test 200,7 / 200.8 / 6010 300.0 Anions Total Dissolved Solids (TDS) DH Dping Placard In F Mon-Fri 7:00am-6:00pm ar e right to return hazardous, e right to charge for unused	250 mL nitr 250mL plas 1-1L Plastic 250 mL pla Place: N ad Sat 8:00a toxic, or rad bottles, as v	r ic stic unpres c Unpreserved stic NO am-2:00pm unless specioactive samples to y well as cost associated	2 1 1 1	0 0 0 0	071122-2EIZ 071122-2EJC 072522-2EFB 071122-2EJC LAB as are made	USE: Ship Date: Prepared By: Verified By:
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# of Samples Ma 1 W 1 W 1 W 1 W 1 W 1 W 1 W 1	Inted Matrix	Test 200,7 / 200.8 / 6010 300.0 Anions Total Dissolved Solids (TDS) DH Dping Placard In F Mon-Fri 7:00am-6:00pm ar e right to return hazardous, e right to charge for unused ays.	250 mL nitr 250mL plas 1-1L Plastic 250 mL pla Place: N ad Sat 8:00a toxic, or rad bottles, as v	r ic stic unpres c Unpreserved stic NO am-2:00pm unless specioactive samples to y well as cost associated	2 1 1 1	0 0 0 0	071122-2EIZ 071122-2EJC 072522-2EFB 071122-2EJC LAB as are made	USE: Ship Date: Prepared By: Verified By:

F-ALL-C-009-rev.00, 19Dec2016

Page 1 of 1

Page 27 of 29

Client:	Evergy	Kansas	Contral	Inc
- 5	00			

Profile # 9657

Site: MWFAA5

Notes

COC Line Item	Matrix	VG9H	реэн	D690	VG9U	DG9N	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	вРзи	BP1N	BP3N	врзг	BP3S	врзс	BP3Z	WPDU	ZPLC	Other	
1	wt																		Ī		Z		2						7	-0	
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12																															

Container Codes

		Blass			Plastic		Misc.
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar	BP1C	1L NAOH plastic		Wipe/Swab
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar	BP1N	1L HNO3 plastic	SP5T	120mL Coliform Na Thiosulfate
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar	BP1S	1L H2SO4 plastic	ZPLC	Ziploc Bag
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide	BP1U	1L unpreserved plastic	AF	Air Filter
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass	BP1Z	1L NaOH, Zn Acetate	C	Air Cassettes
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass	BP2C	500mL NAOH plastic	R	Terracore Kit
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass	BP2N	500mL HNO3 plastic	U	Summa Can
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass	BP2S	500mL H2SO4 plastic		
/G9T	40mL Na Thio, clear vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic		
(0011	40 4	1.0011		_			

VG9U 40mL unpreserved clear vial AG2N 500mL HNO3 amber glass BP2Z 500mL NaOH, Zn Acetate BG1S AG2S ВР3С 1liter H2SO4 clear glass 500mL H2SO4 amber glass 250mL NaOH plastic BG1U 1liter unpres glass AG3S 250mL H2SO4 amber glass BP3F 250mL HNO3 plastic - field filtered WT Water BG3H 250mL HCL Clear glass AG2U 500mL unpres amber glass BP3N 250mL HNO3 plastic SL Solid BG3U 250mL Unpres Clear glass AG3U 250mL unpres amber glass BP3U 250mL unpreserved plastic NAL Non-aqueous Liquid WGDU 16oz clear soil jar AG4U 125mL unpres amber glass BP3S 250mL H2SO4 plastic OL OIL 100mL unpres amber glass AG5U BP3Z 250mL NaOH, Zn Acetate WP Wipe DW Drinking Water

BP4U 125mL unpreserved plastic BP4N 125mL HNO3 plastic BP4S 125mL H2SO4 plastic WPDU 16oz unpresserved plstic

Work Order Number:

60409975

Matrix



Section A

Section B

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at https://info.pacelabs.com/hubfs/pas-standard-terms.pdf.

Section C

•	Required Project Inform		invoice information:		Page: 1 Of 1
	Report To: Jake Hump		Attention:		
		,Samantha Kaney,Melissa Michels	Company Name:		
	Danielle Oberbroeckling		Address:		Regulatory Agency
	Purchase Order #:		Pace Quote:		
	Project Name: MW-F	AA-5	Pace Project Manager: alice.spiller@pace	elabs.com,	State / Location
Requested Due Date:	Project #:		Pace Profile #: 9657, 10		KS
				Requested Analysis Filtered	1 (Y/N)
MATRIX District West	codes to left)	COLLECTED	Preservatives		
SAMPLE ID One Character per box. Drinking Water Waster Waste Water Soil/Solid Oil Wipe Air	(See valid c		AINERS sed ses Test	200.7 / 200.8/ 245.1* 300.0 Anions Cl,F.S Total Dissolved Solids (TDS) pH	Chlorine (Y/N)
(A-Z, 0-9 / , -) Sample Ids must be unique Tissue	ST D ATRIX CO	ATE TIME DATE TIME	# OF CONTAINERS Unpreserved H2SO4 HNO3 HCI NaOH Na2S2O3 Methanol Other	200.7 / 200.8/ 245.1 300.0 Anions CI,F.S Total Dissolved Solic pH	Residual O
1					
2					
3	-				
4	-				
5	-				
6	-				
7	-				
8					
9					
10					
11					
12	<u> </u>				
ADDITIONAL COMMENTS	RELINQUISHE	D BY / AFFILIATION DATE	TIME ACCEPTED BY / AF	FILIATION DATE	TIME SAMPLE CONDITIONS
00.7/200.8 B,Ca,Sb,As,Ba,Cd,Cr.Co,Pb.Mo,Se,Tl, Hg					
		SAMPLER NAME AND SIGNA	TURE		
		PRINT Name of SAMPLE			ed on S
		SIGNATURE of SAMPLE	R:	DATE Signed:	TEMP in C Received on (Y/N) Custody Sealed Cooler (Y/N) Samples Intact





October 04, 2022

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

RE: Project: JEC MW-FAA-5 RadChem

Pace Project No.: 60409976

Dear Jake Humphrey:

Enclosed are the analytical results for sample(s) received by the laboratory on September 09, 2022. 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@pacelabs.com (913)599-5665

alice Spiller

PM Lab Management

Enclosures

cc: Laura Hines, Evergy, Inc.

Samantha Kaney, Haley & Aldrich Melissa Michels, Evergy, Inc.

Danielle Oberbroeckling, Haley & Aldrich







CERTIFICATIONS

Project: JEC MW-FAA-5 RadChem

Pace Project No.: 60409976

Pace Analytical Services Pennsylvania

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

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590 Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA Colorado Certification #: PA01547 Connecticut Certification #: PH-0694

Delaware Certification EPA Region 4 DW Rad

Florida/TNI Certification #: E87683 Georgia Certification #: C040 Florida: Cert E871149 SEKS WET

Guam Certification Hawaii Certification Idaho Certification Illinois Certification Indiana Certification Iowa Certification #: 391

Kansas/TNI Certification #: E-10358 Kentucky Certification #: KY90133 KY WW Permit #: KY0098221 KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012 Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020 Maryland Certification #: 308

Massachusetts Certification #: M-PA1457 Michigan/PADEP Certification #: 9991 Missouri Certification #: 235 Montana Certification #: Cert0082 Nebraska Certification #: NE-OS-29-14 Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051 New Mexico Certification #: PA01457 New York/TNI Certification #: 10888 North Carolina Certification #: 42706 North Dakota Certification #: R-190 Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010 Pennsylvania/TNI Certification #: 65-00282 Puerto Rico Certification #: PA01457 Rhode Island Certification #: 65-00282

South Dakota Certification
Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3 Utah/TNI Certification #: PA014572017-9 USDA Soil Permit #: P330-17-00091 Vermont Dept. of Health: ID# VT-0282 Virgin Island/PADEP Certification Virginia/VELAP Certification #: 460198 Washington Certification #: C868 West Virginia DEP Certification #: 143 West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad Wyoming Certification #: 8TMS-L





SAMPLE SUMMARY

Project: JEC MW-FAA-5 RadChem

Pace Project No.: 60409976

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60409976001	MW-FAA-5-090822	Water	09/08/22 10:55	09/09/22 16:30



SAMPLE ANALYTE COUNT

Project: JEC MW-FAA-5 RadChem

Pace Project No.: 60409976

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60409976001	MW-FAA-5-090822	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg



PROJECT NARRATIVE

Project: JEC MW-FAA-5 RadChem

Pace Project No.: 60409976

Method: EPA 903.1

Description: 903.1 Radium 226

Client: Evergy Kansas Central, Inc.

Date: October 04, 2022

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:



PROJECT NARRATIVE

Project: JEC MW-FAA-5 RadChem

Pace Project No.: 60409976

Method: EPA 904.0

Description: 904.0 Radium 228

Client: Evergy Kansas Central, Inc.

Date: October 04, 2022

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:



PROJECT NARRATIVE

Project: JEC MW-FAA-5 RadChem

Pace Project No.: 60409976

Method:Total Radium CalculationDescription:Total Radium 228+226Client:Evergy Kansas Central, Inc.

Date: October 04, 2022

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.



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: JEC MW-FAA-5 RadChem

Pace Project No.: 60409976

Sample: MW-FAA-5-090822 PWS:	Lab ID: 6040997 Site ID:	Collected: 09/08/22 10:55 Sample Type:	Received:	09/09/22 16:30	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Ser	rvices - Greensburg				
Radium-226	EPA 903.1	0.812 ± 0.776 (1.18) C:NA T:91%	pCi/L	09/23/22 16:4	1 13982-63-3	
	Pace Analytical Ser	rvices - Greensburg				
Radium-228	EPA 904.0	0.526 ± 0.449 (0.901) C:77% T:96%	pCi/L	09/29/22 18:59	9 15262-20-1	
	Pace Analytical Ser	rvices - Greensburg				
Total Radium	Total Radium Calculation	1.34 ± 0.897 (1.18)	pCi/L	10/03/22 10:29	9 7440-14-4	



QUALITY CONTROL - RADIOCHEMISTRY

Project: JEC MW-FAA-5 RadChem

Pace Project No.: 60409976

QC Batch: 533074 Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1 Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 60409976001

METHOD BLANK: 2586469 Matrix: Water

Associated Lab Samples: 60409976001

ParameterAct \pm Unc (MDC) Carr TracUnitsAnalyzedQualifiersRadium-2260.0595 \pm 0.272 (0.161) C:NA T:96%pCi/L09/23/22 15:59

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.



QUALITY CONTROL - RADIOCHEMISTRY

Project: JEC MW-FAA-5 RadChem

Pace Project No.: 60409976

QC Batch: 533075 Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0 Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 60409976001

METHOD BLANK: 2586473 Matrix: Water

Associated Lab Samples: 60409976001

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-228
 0.538 ± 0.318 (0.574) C:81% T:96%
 pCi/L
 09/29/22 16:25

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.



QUALIFIERS

Project: JEC MW-FAA-5 RadChem

Pace Project No.: 60409976

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

Date: 10/04/2022 08:28 AM

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.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: JEC MW-FAA-5 RadChem

Pace Project No.: 60409976

Date: 10/04/2022 08:28 AM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60409976001	MW-FAA-5-090822	EPA 903.1	533074		
60409976001	MW-FAA-5-090822	EPA 904.0	533075		
60409976001	MW-FAA-5-090822	Total Radium Calculation	536687		

W0#:60409976



DC#_Title: ENV-FRM-LENE-0009_Sample Cor

	ANALYTICAL SERVICES	Revision: 2	Effective Date: 01/12/	2022	Issued By: Lenexa	
Client Nan	ne: Eveny	Kansus Central I	1(
Courier:	FedEx □ UPS	-3C V		Pace	e ☑ Xroads □ Client □ Other □	
Tracking #:			Pace Shipping Label U	sed? Y	∕es Ø No □	
Custody Sea	l on Cooler/Box	Present: Yes 🗹 No	□ Seals intact: Yes	3 🗷 N	No 🗆	
Packing Mate Thermometer		•	Bags □ LING Foam □ Type of Ice: Web Blue		None ☐ Other ☑ CPLC	
Cooler Temp	erature (°C):	As-read 23.1 Con	rr. Factor 6.0 Corre	ected	Date and initials of personal examining contents:	erson 25 9/9/22
	hould be above free					
Chain of Cust	tody present:		ØYes □No □N/	Ά		
Chain of Cust	tody relinquished:		ZÎYes □No □Na	Α		
Samples arriv	red within holding	time:	Ź Yes □No □N/	Α		
Short Hold T	ime analyses (<7	'2hr):	□Yes Z No □N	Α		
Rush Turn A	round Time requ	ested:	□Yes Ø No □N	A		
Sufficient volu	ıme:		ØYes □No □N/	A		
Correct contai	iners used:		ØYes □No □N/	A		
Pace containe	ers used:		ØYes □No □N/	А		
Containers int	tact:		ØYes □No □N/	A		
Unpreserved :	5035A / TX1005/1	1006 soils frozen in 48h	rs? □Yes □No ☑N/	А		
Filtered volum	ne received for dis	solved tests?	□Yes □No ØN/	А		
Sample labels	s match COC: Dat	e / time / ID / analyses	ØYes □No □N/	A		
Samples conta	ain multiple phase	es? Matrix:	□Yes ZNo □N/	A		
Containers red	quiring pH preserv	vation in compliance?	ØYes □No □N/		sample IDs, volumes, lot #'s of preservat	ive and the
1	HCI<2; NaOH>9 Su OA, Micro, O&G, KS	Ifide, NaOH>10 Cyanide)	LOT#: 53192	date/	/time added.	
	r sample checks:	TITI, OK-BROJ	LO1#. J 3 1 70			
	strip turns dark? (- ·	□Yes □No			
Potassium iod	dide test strip turns	s blue/purple? (Preserve	e) □Yes □No	_		
Trip Blank pre	esent:		□Yes □No ☑N/	A		
Headspace in	VOA vials (>6mr	n):	□Yes □No ☑N/	Α		
Samples from	USDA Regulated	l Area: State:	□Yes □No ØN/	Α		
Additional labe	els attached to 50	35A / TX1005 vials in th		Α		
	ation/ Resolution	n: Copy	COC to Client? Y / N	F	Field Data Required? Y / N	
Person Contac			Date/Time:		E.	ie:
Comments/ Re	esolution:					
Project Manag	ger Review:		D	ate:		



CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A	Submit	tting a sample via this cha	ain of custody Section B	cons	titutes ack	nowledgm	ent and	acceptan	ice o	f the	Pace	Tern	ns an	d Co	nditio	ns fou	ind a	http	s://ii	nfo.p	acela	abs,c	om/h	nubfs	/pas-s	standa	rd-terr	ns.pd	f.		
Required	Client Information:		Required Pro	ject Ir	nformation						ice Inf	forma	tion:													- 1	Dage		2	06	
Company	Evergy Kansas Centra	il, Inc.		_	ntha Kaney		Oberbroed	klina		Atter	_	_		s Pay	able		_	_	_	_	-		-	_		_	Page		1	Of	1
Address:	400 E Van Buren St				sa Michaels					Com	pany N					Centr	al, Inc	_	_				_	1							
	, Phoenix, AZ 85004									Addr	ess.			tion A													Re	quiat	ory Agend	v	
	skaney@haleyaldrich.com		Purchase Ord								Quote																_	_	ndwater		
Phone:	(602)760-2441	Fax	Project Name	: 1	MW-FAA-5						Proje		nager	:	alice.	spiller(Драс е	elabs	com	١,								State /	Location		
Requeste	ed Due Date:		Project #:							Pace	Profil	le #:	965	7															KS		
_				_	_				_	_			_				_	_	R	eque	sted	Anal	ysis	Filter	ed (Y/	N)					
		MATRIX Drinking W		des to left)	C=COMP)	COLL	ECTED	-	NOI.		_	Pı	esei	vati	ves	_	ΝX	N	N	N	N	N	N	N							
	SAMPLE	Water Waste Wat Product Soil/Solid Oil	WT er WW P SL OL	(see valid codes to left)	(G=GRAB C=COMP)	ART	EN	ND	T COLLECT	S							Test											e (Y/N)		0011	9
ITEM#	One Character per (A-Z, 0-9 / , -) Sample Ids must be	box. Wipe Air Other	WP AR OT TS		DATE	TIME	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	HZSU4	НСІ	NaOH	Na2S203	Methanol	alyses	Radium 226	Radium 228	Total Radium								Residual Chlorine (Y/N)	60 ⁶	oqqal	
1	MW	-FAA-5-090822		WT	G -		9/8/22	10:55		2		2	П	П			Г	x	x	x		П	T	T				П			
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Page 14 of 2							NATURE				1/2-	~ 1	?	14	1	h	Jas	on R		nks E Sig	ned:			9/9	9/2022	!	-	DEIMP IN	Receiver Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

60489976 ace Container Order #98617

Order	By:	Ship 1	Го :	Return	n To:
Company	Evergy Kansas Central, Inc.	Company	SCS Engineers	Company	Pace Analytical Kansas
Contact	Kaney, Samantha	Contact	Franks, Jason	Contact	Spiller, Alice
Email	skaney@haleyaldrich.com	Email	jfranks@scsengineers.com	Email	alice.spiller@pacelabs.com
Address	400 E Van Buren St	Address	8575 W 110th St	Address	9608 Loiret Blvd.
Address 2	Suite 545	Address 2	#100	Address 2	
City	Phoenix	City	Overland Park	City	Lenexa
State	AZ Zip 85004	State	KS Zip 66210	State	KS Zip 66219
Phone	(602)760-2441	Phone	(913) 749-0716	Phone	(913)599-5665
Proje	ct Name MW-FAA-5 RADCHEM	Due Date	09/02/2022 Profile	9657, 7	Quote
Project N	Manager Spiller, Alice	Return Date	Carrier	Courier	Location KS
	Manager Spiller, Alice	Return Date			Location KS
− Trip Bl	Manager Spiller, Alice lanks clude Trip Blanks	Return Date	Bottle Labels Blank X Pre-Printed No Sample ! Pre-Printed With Sample	Ds Bo	ttles Boxed Cases Individually Wrapped Grouped By Sample ID/Matrix
- Return	lanks —	Return Date	Bottle Labels Blank X Pre-Printed No Sample t	Ds Bo	ttles Boxed Cases Individually Wrapped
- Return	n Shipping Labels o Shipper ith Shipper Options umber of Blanks e-Printed	Return Date	Bottle Labels Blank X Pre-Printed No Sample to Pre-Printed With Sample Misc Sampling Instructions X Custody Seal Temp. Blanks X Coolers Syringes	Ds Bo	Boxed Cases Individually Wrapped Grouped By Sample ID/Matrix Extra Bubble Wrap Short Hold/Rush Stickers DI Water Liter(s)

Hazard Shipping Placard In Place: NO

LAB USE:

- *Sample receiving hours are Mon-Fri 7:00am-6:00pm and Sat 8:00am-2:00pm unless special arrangements are made with your project manager.
- *Pace Analytical reserves the right to return hazardous, toxic, or radioactive samples to you.
- *Pace Analytical reserves the right to charge for unused bottles, as well as cost associated with sample storage/disposal.

*Payment term are net 30 days.

*Please include the proposal number on the chain of custody to insure proper billing.

900	
Ship Date :	09/01/22
Prepared By:	CB
Verified By:	0

Sample	CLIENT USE (Optional):
•	Date Rec'd:
	Received By:
	Verified By:
	Page 1 of 1

F-ALL-C-009-rev.00, 19Dec2016

Page 1 of 1

Page 15 of 21

Client:	Everga	Kansas	Central	Inc
	00			

Profile # 9657

Site: MWFAA5

Notes

COC Line Item		VG9H	резн	DG9O	NG9U	DG9N	DG9M	DG9B	BG1U	АСЛН	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	врзи	BP1N	BP3N	ВРЗГ	BP3S	врзс	BP3Z	WPDU	ZPLC	Other	
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Container Codes

		Glass			Plastic		Misc.
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar	BP1C	1L NAOH plastic	1	Wipe/Swab
DG9H	40mL HCl amber voa vial	WGFU	4oz ciear soil jar	BP1N	1L HNO3 plastic	SP5T	120mL Coliform Na Thiosulfate
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar	BP1S	1L H2SO4 plastic	ZPLC	Ziploc Bag
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide	BP1U	1L unpreserved plastic	AF	Air Filter
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass	BP1Z	1L NaOH, Zn Acetate	С	Air Cassettes
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass	BP2C	500mL NAOH plastic	R	Terracore Kit
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass	BP2N	500mL HNO3 plastic	U	Summa Can
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass	BP2S	500mL H2SO4 plastic		14.0
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic		
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Acetate		B.F. AC.
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass	BP3C	250mL NaOH plastic		Matrix
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic - field filtered	WT	Water
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic	SL	Solid
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass	BP3U	250mL unpreserved plastic	NAL	Non-aqueous Liquid
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass	BP3S	250mL H2SO4 plastic	OL	OIL
		AG5U	100mL unpres amber glass	BP3Z	250mL NaOH, Zn Acetate	WP	Wipe
		111		BP4U	125mL unpreserved plastic	DW	Drinking Water
				BP4N	125mL HNO3 plastic		
				BP4S	125mL H2SO4 plastic	1	

WPDU

16oz unpresserved plstic

Work Order Number:

60409976

Page 16 of 21



Section B

Section A

CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at https://info.pacelabs.com/hubfs/pas-standard-terms.pdf.

Section C

		Required Pro	_										natior	1.													Ļ	Pa	ge :	1	Ot	1
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ddress:						intha Kane	ey,Melissa	Michels			npany	Nan	ne:															_				
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hone:	*** -***-	Project Name	:	MW-	-FAA-5								/lanag			ce.sp	oiller@	pace	elabs.	.com,	1								State	/ Location		
equeste	d Due Date:	Project #:								Pac	e Pro	THE #	: 9	657,	10					_								—	_	KS		
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	SAMPLE ID One Character per box. Water Waste Wate Product Soil/Solid Oil Wipe	P SL OL WP	(see valid o	(G=GRAB	STA	ART	EN	ID	AT COLLECTION	IERS								s Test											Chlorine (Y/N)			
ITEM #	(A-Z, 0-9 /, -) Sample lds must be unique Air Other Tissue	AR OT TS	MATRIX CODE	SAMPLE TYPE	DATE	TIME	DATE	TIME	SAMPLE TEMP	# OF CONTAINERS	Unpreserved	H2SO4	HNO3		Na2S2O3	Methanol	Other	Analyse	Radium 226	Radium 228	Total Radium								Residual Chlo			
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Interr	ıal Transfer Cl	nain d	of C	ustoc	ly																, ga		,		. , e
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Report To	er: 60409976 Worl	corder N		MW-FA Subcontra		RadChem	1			Οw	/ner	Rece	ive	d Da	te:	9/:	9/2022 Reque		THE RESERVE THE PARTY OF THE PA		eque	sted E	3у:	10/11/2	022
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hermometer Used					<u></u> 110		
	Type	of Ice:		ection Factor:	°C Final Tomp:	°C	
ooler Temperature Observed Temp emp should be above freezing to 6°C		-	COII	ection ractor.	°C Final Temp:	Ū	
•				pH paper Lot#	Date and initials of person examin	ning, P	59/1
omments:	Yes	No	N/A	1000421	contents:	4171	~ > 4
hain of Custody Present:				1.			1/14
hain of Custody Filled Out:		1		2.			
hain of Custody Relinquished:		1		3.			
ampler Name & Signature on COC:				4.			
ample Labels match COC:				5.			
-Includes date/time/ID Matrix:	WT						
amples Arrived within Hold Time:	· /			6.			
nort Hold Time Analysis (<72hr remaining):				7.	***************************************		8
ush Turn Around Time Requested:			1	8.			10/05/22
ufficient Volume:				9.			<u>}</u>
orrect Containers Used:		f		10.			
-Pace Containers Used:						9	Date
ontainers Intact:				11.	THE PROPERTY OF THE PROPERTY O		
rthophosphate field filtered				12.		52 1	
ex Cr Aqueous sample field filtered				13.			6
rganic Samples checked for dechlorination:				14.		ന	PACE
tered volume received for Dissolved tests				15.			_ 0
containers have been checked for preservation.				16.		工	5 E
ceptions: VOA, coliform, TOC, O&G, Phenolics on-aqueous matrix	, Radon	1		PHCO	•		M: CLIE
containers meet method preservation				Initial when	Date/time of		
quirements.	L		l	completed 77	preservation		
				preservative			
eadspace in VOA Vials (>6mm):				17,			
p Blank Present:	<u> </u>			18.			
p Blank Custody Seals Present		_		In Michael	PS 9/14/22		
d Samples Screened < 0.5 mrem/hr				Initial when p5	Date: 9447 SN:	563	
ent Notification/ Resolution:					9/14/22		
Person Contacted:			Date/	Гime:	Contacted By:		
Comments/ Resolution:							

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

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



Quality Control Sample Performance Assessment

Test: Ra-228
Analyst: VAL
Date: 9/20/2022
Worklist: 68877
Matrix: WT

 Method Blank Assessment
 MB Sample ID
 2586473

 MB concentration:
 0.538

 M/B 2 Sigma CSU:
 0.318

 MB MDC:
 0.574

 MB Numerical Performance Indicator:
 3.32

 MB Status vs Numerical Indicator:
 Fail*

 MB Status vs. MDC:
 Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS68877	LCSD68877
Count Date:	9/29/2022	9/29/2022
Spike I.D.:	22-029	22-029
Decay Corrected Spike Concentration (pCi/mL):	19.905	19.905
Volume Used (mL):	0.20	0.20
Aliquot Volume (L, g, F):	0.804	0.807
Target Conc. (pCi/L, g, F):	4.951	4.932
Uncertainty (Calculated):	0.356	0.355
Result (pCi/L, g, F):	4.181	3.107
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.937	0.811
Numerical Performance Indicator:	-1.51	-4.04
Percent Recovery:	84.44%	62.99%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	135%	135%
Lower % Recovery Limits:	60%	60%

Duplicate Sample Assessment		
Sample I.D.: Duplicate Sample I.D.: Sample Result (pCi/L, g, F): Sample Result 2 Sigma CSU (pCi/L, g, F): Sample Duplicate Result (pCi/L, g, F): Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F): Are sample and/or duplicate results below RL? Duplicate Numerical Performance Indicator: (Based on the LCS/LCSD Percent Recoveries) Duplicate RPD: Duplicate Status vs Numerical Indicator: Duplicate Status vs RPD: % RPD Limit:	LCSD68877 4.181 0.937 3.107 0.811 NO 1.699 29.10% Pass Pass	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.

Analyst Must Manually Enter All Fields Highlighted in Yellow.

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:		l
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:		1
MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Comple I D	
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 the lowest activity sample in this batch is greater than ten times the blank value, the blank is acceptable; otherwise this batch must be re-prepped.

N19/30/22

MB activity & MOC, Past

22



Quality Control Sample Performance Assessment

Test: Ra-226 Analyst: SLC

Date: 9/16/2022

Batch ID: 68876
Matrix: DW

 Method Blank Assessment
 MB Sample ID
 2586469

 MB concentration:
 0.060

 M/B Counting Uncertainty:
 0.117

 MB MDC:
 0.161

 MB Numerical Performance Indicator:
 1.00

 MB Status vs Numerical Indicator:
 N/A

 MB Status vs. MDC:
 Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS68876	LCSD68876
Count Date:	9/23/2022	9/23/2022
Spike I.D.:	21-040	21-040
Spike Concentration (pCi/mL):	32.426	32.426
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.657	0.657
Target Conc. (pCi/L, g, F):	4.933	4.933
Uncertainty (Calculated):	0.232	0.232
Result (pCi/L, g, F):	5.715	4.277
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	1.174	0.962
Numerical Performance Indicator:	1.28	-1.30
Percent Recovery:	115.85%	86.70%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	135%	135%
Lower % Recovery Limits:	73%	73%

Duplicate Sample Assessment		
Sample I.D.: Duplicate Sample I.D.: Sample Result (pCi/L, g, F): Sample Result Counting Uncertainty (pCi/L, g, F): Sample Duplicate Result (pCi/L, g, F): Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): Are sample and/or duplicate results below RL?	LCSD68876 5.715 1.174 4.277 0.962 NO	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Numerical Performance Indicator:	1.858	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	28.78%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:		1
% RPD Limit:	32%	l

Analyst Must Manually Enter All Fields Highlighted in Yellow.

	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):		
1	MSD Spike Uncertainty (calculated):		
1	Sample Result:		
1	Sample Result Counting Uncertainty (pCi/L, g, F):		
l	Sample Matrix Spike Result:		
ı	Matrix Spike Result Counting Uncertainty (pCi/L, g, F):		
l	Sample Matrix Spike Duplicate Result:		
ı	Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):		
ı	MS Numerical Performance Indicator:		
L	MSD Numerical Performance Indicator:		
L	MS Percent Recovery:		
ı	MSD Percent Recovery:		
l	MS Status vs Numerical Indicator:		
ı	MSD Status vs Numerical Indicator:		
۱	MS Status vs Recovery:		
ı	MSD Status vs Recovery:		
ı	MS/MSD Upper % Recovery Limits:		
	MS/MSD Lower % Recovery Limits:		I

Matrix Spike/Matrix Spike Duplicate Sample A	ssessment
Matrix Spike Result Counting Uncert Sample Matrix Spike Matrix Spike Duplicate Result Counting Uncert Duplicate Numerical Perfo (Based on the Percent Recoveries) MS/ MS MS/ MSD Duplicate Status vs N	e Duplicate Result: lainty (pCi/L, g, F): ormance Indicator: SD Duplicate RPD:

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

Comments:

(CIECI) ((C)

Marahr





October 13, 2022

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

RE: Project: JEC FAL CCR RadChem

Pace Project No.: 60409980

Dear Jake Humphrey:

Enclosed are the analytical results for sample(s) received by the laboratory on September 09, 2022. 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@pac

alice.spiller@pacelabs.com (913)599-5665

alice Spiller

PM Lab Management

Enclosures

cc: Laura Hines, Evergy, Inc. Samantha Kaney, Haley & Aldrich

Melissa Michels, Evergy, Inc.

Danielle Oberbroeckling, Haley & Aldrich







CERTIFICATIONS

Project: JEC FAL CCR RadChem

Pace Project No.: 60409980

Pace Analytical Services Pennsylvania

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

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590 Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA Colorado Certification #: PA01547 Connecticut Certification #: PH-0694

Delaware Certification EPA Region 4 DW Rad

Florida/TNI Certification #: E87683 Georgia Certification #: C040 Florida: Cert E871149 SEKS WET

Guam Certification Hawaii Certification Idaho Certification Illinois Certification Indiana Certification Iowa Certification #: 391

Kansas/TNI Certification #: E-10358 Kentucky Certification #: KY90133 KY WW Permit #: KY0098221 KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012 Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020 Maryland Certification #: 308

Massachusetts Certification #: M-PA1457 Michigan/PADEP Certification #: 9991 Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617 New Jersey/TNI Certification #: PA051 New Mexico Certification #: PA01457 New York/TNI Certification #: 10888 North Carolina Certification #: 42706

North Carolina Certification #: 42706 North Dakota Certification #: R-190 Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010 Pennsylvania/TNI Certification #: 65-00282 Puerto Rico Certification #: PA01457 Rhode Island Certification #: 65-00282

South Dakota Certification
Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3 Utah/TNI Certification #: PA014572017-9 USDA Soil Permit #: P330-17-00091 Vermont Dept. of Health: ID# VT-0282 Virgin Island/PADEP Certification Virginia/VELAP Certification #: 460198 Washington Certification #: C868 West Virginia DEP Certification #: 143 West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad Wyoming Certification #: 8TMS-L



SAMPLE SUMMARY

Project: JEC FAL CCR RadChem

Pace Project No.: 60409980

Lab ID Sample ID		Matrix	Date Collected	Date Received
60409980001	FAA-3-090822	Water	09/08/22 16:45	09/09/22 17:00
60409980002	FAA-4-090822	Water	09/08/22 17:45	09/09/22 17:00
60409980003	FAA-6-090822	Water	09/08/22 14:25	09/09/22 17:00
60409980004	DUP-FAA-090822	Water	09/08/22 14:30	09/09/22 17:00



SAMPLE ANALYTE COUNT

Project: JEC FAL CCR RadChem

Pace Project No.: 60409980

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60409980001	FAA-3-090822	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
60409980002	FAA-4-090822	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
60409980003	FAA-6-090822	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
60409980004	DUP-FAA-090822	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg



PROJECT NARRATIVE

Project: JEC FAL CCR RadChem

Pace Project No.: 60409980

Method: EPA 903.1

Description: 903.1 Radium 226

Client: Evergy Kansas Central, Inc.

Date: October 13, 2022

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:



PROJECT NARRATIVE

Project: JEC FAL CCR RadChem

Pace Project No.: 60409980

Method: EPA 904.0

Description: 904.0 Radium 228

Client: Evergy Kansas Central, Inc.

Date: October 13, 2022

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:



PROJECT NARRATIVE

Project: JEC FAL CCR RadChem

Pace Project No.: 60409980

Method:Total Radium CalculationDescription:Total Radium 228+226Client:Evergy Kansas Central, Inc.

Date: October 13, 2022

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.



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: JEC FAL CCR RadChem

Pace Project No.: 60409980

Sample: FAA-3-090822 PWS:	Lab ID: 604099 Site ID:	80001 Collected: 09/08/22 16:45 Sample Type:	Received:	09/09/22 17:00	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Se	ervices - Greensburg				
Radium-226	EPA 903.1	0.246 ± 0.535 (0.986) C:NA T:97%	pCi/L	09/23/22 16:15	13982-63-3	
	Pace Analytical Se	ervices - Greensburg				
Radium-228	EPA 904.0	-0.0789 ± 0.356 (0.856) C:79% T:90%	pCi/L	09/29/22 18:21	15262-20-1	
	Pace Analytical Se	ervices - Greensburg				
Total Radium	Total Radium Calculation	0.246 ± 0.643 (0.986)	pCi/L	10/03/22 10:29	7440-14-4	



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: JEC FAL CCR RadChem

Pace Project No.: 60409980

Sample: FAA-4-090822 PWS:	Lab ID: 6040998 Site ID:	0002 Collected: 09/08/22 17:45 Sample Type:	Received:	09/09/22 17:00	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Ser	vices - Greensburg				
Radium-226	EPA 903.1	0.000 ± 0.426 (0.924) C:NA T:94%	pCi/L	09/23/22 16:15	5 13982-63-3	
	Pace Analytical Ser	vices - Greensburg				
Radium-228	EPA 904.0	0.00551 ± 0.358 (0.833) C:85% T:93%	pCi/L	09/29/22 18:22	2 15262-20-1	
	Pace Analytical Ser	vices - Greensburg				
Total Radium	Total Radium Calculation	0.00551 ± 0.556 (0.924)	pCi/L	10/03/22 10:29	7440-14-4	



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: JEC FAL CCR RadChem

Pace Project No.: 60409980

Sample: FAA-6-090822 PWS:	Lab ID: 604099 Site ID:	80003 Collected: 09/08/22 14:25 Sample Type:	Received:	09/09/22 17:00	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Se	ervices - Greensburg				
Radium-226	EPA 903.1	0.488 ± 0.678 (1.15) C:NA T:95%	pCi/L	09/23/22 16:15	5 13982-63-3	
	Pace Analytical Se	ervices - Greensburg				
Radium-228	EPA 904.0	0.0545 ± 0.320 (0.741) C:80% T:93%	pCi/L	09/29/22 18:22	2 15262-20-1	
	Pace Analytical Se	ervices - Greensburg				
Total Radium	Total Radium Calculation	0.543 ± 0.750 (1.15)	pCi/L	10/03/22 10:29	7440-14-4	



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: JEC FAL CCR RadChem

Pace Project No.: 60409980

Sample: DUP-FAA-090822 PWS:	Lab ID: 604099 Site ID:	Sample Type: 09/08/22 14:30	Received:	09/09/22 17:00	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Se	ervices - Greensburg		,		
Radium-226	EPA 903.1	0.000 ± 0.372 (0.834) C:NA T:90%	pCi/L	09/23/22 16:28	13982-63-3	
	Pace Analytical So	ervices - Greensburg				
Radium-228	EPA 904.0	0.535 ± 0.403 (0.791) C:80% T:77%	pCi/L	10/03/22 11:40	15262-20-1	
	Pace Analytical So	ervices - Greensburg				
Total Radium	Total Radium Calculation	$0.535 \pm 0.548 (0.834)$	pCi/L	10/04/22 17:14	7440-14-4	



QUALITY CONTROL - RADIOCHEMISTRY

Project: JEC FAL CCR RadChem

Pace Project No.: 60409980

QC Batch: 533074 Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1 Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 60409980001, 60409980002, 60409980003, 60409980004

METHOD BLANK: 2586469 Matrix: Water
Associated Lab Samples: 60409980001, 60409980002, 60409980003, 60409980004

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-226 0.0595 ± 0.272 (0.161) C:NA T:96% pCi/L 09/23/22 15:59

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.



QUALITY CONTROL - RADIOCHEMISTRY

Project: JEC FAL CCR RadChem

Pace Project No.: 60409980

QC Batch: 533075 Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0 Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 60409980001, 60409980002, 60409980003, 60409980004

METHOD BLANK: 2586473 Matrix: Water
Associated Lab Samples: 60409980001, 60409980002, 60409980003, 60409980004

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-228 0.538 ± 0.318 (0.574) C:81% T:96% pCi/L 09/29/22 16:25

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.



QUALIFIERS

Project: JEC FAL CCR RadChem

Pace Project No.: 60409980

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

Date: 10/13/2022 09:39 AM

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.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: JEC FAL CCR RadChem

Pace Project No.: 60409980

Date: 10/13/2022 09:39 AM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60409980001	FAA-3-090822	EPA 903.1	533074		
60409980002	FAA-4-090822	EPA 903.1	533074		
60409980003	FAA-6-090822	EPA 903.1	533074		
60409980004	DUP-FAA-090822	EPA 903.1	533074		
60409980001	FAA-3-090822	EPA 904.0	533075		
60409980002	FAA-4-090822	EPA 904.0	533075		
60409980003	FAA-6-090822	EPA 904.0	533075		
60409980004	DUP-FAA-090822	EPA 904.0	533075		
60409980001	FAA-3-090822	Total Radium Calculation	536687		
60409980002	FAA-4-090822	Total Radium Calculation	536687		
60409980003	FAA-6-090822	Total Radium Calculation	536687		
60409980004	DUP-FAA-090822	Total Radium Calculation	537402		





DC#_Title: ENV-FRM-LENE-0009_Samp

Revision: 2 Effect	ctive Date: 01/12/202	2 Issued By: Lenexa	
Client Name: Evergy Kansas (entral):	Inc.		
	PEX 🗆 ECI 🗆 P	ace 🗆 Xroads 🗆 Clie	ent I Other □
Tracking #: Pac	e 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 I	MPC
Thermometer Used: 1299 Type of	Ice: We Blue None		
Cooler Temperature (°C): As-read 1/2 Corr. Facto	or 0 - 0 Corrected). 2 Da	te and initials of person タルカル amining contentsころ
Temperature should be above freezing to 6°C			
Chain of Custody present:	©Yes □No □N/A	Ē	
Chain of Custody relinquished:	APes □No □N/A		
Samples arrived within holding time:	□Ves □No □N/A		
Short Hold Time analyses (<72hr):	□Yes ŪNo □N/A	18	
Rush Turn Around Time requested:	□Yes ➡No □N/A	*	
Sufficient volume:	Wes □No □N/A		
Correct containers used:			
Pace containers used:	™Yes □No □N/A		
Containers intact:	©Yes □No □N/A		
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	□Yes □No □□M/A		
Filtered volume received for dissolved tests?	□Yes □No □M/A		
Sample labels match COC: Date / time / ID / analyses	Øres □No □N/A		
Samples contain multiple phases? Matrix:	□Yes ဩMo □N/A		
Containers requiring pH preservation in compliance?			ot #'s of preservative and the
(HNO ₃ , H ₂ SO ₄ , HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide)	da	ite/time added.	
(Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO) LOT#: 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 □AN/A		
Headspace in VOA vials (>6mm):	□Yes □No ŪNA		
Samples from USDA Regulated Area: State:	□Yes □No □MA/A		
Additional labels attached to 5035A / TX1005 vials in the field?	□Yes □No □N/A		
Client Notification/ Resolution: Copy COC to		Field Data Required?	Y / N
Person Contacted: Date/Ti	me:		
Comments/ Resolution: Sample collection date on chain of to reference correct collection date		nn was entered incorrectl	y. Sample ID name was used
Project Manager Review:	Date:		



CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

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Section Required	d Client Information:	Section B Required Pr	roject Ir	formation	n;					tion C ce Info	C ormatic	on:															P	age:	1	of	1	
Company	EVERGY KANSAS CENTRAL, INC.	Report To:	Vieliss	a Miche	els, Samanti	na Kaney,	Danielle (Obe							yable						٦						_					
Address:	Jeffrey Energy Center (JEC)	Copy To: ,	Jared	Morriso	n, Jake Hun	nphrey, La	ura Hines		Com	pany N	Name:	Ε	VER	RGY	KAN	NSA	S C	EN'	TRA	L, IN	Id RE	GUL	ATO	DRY	AGE	NC	, 	_				
	818 Kansas Ave, Topeka, KS 66612								Addr	ess:	S	ee :	Sect	tion .	Α						Г	NF	PDES	; [, G	ROU	JND '	WAT	ER T	DRINKII	NG W/	ATER
Email To	melissa.michels@evergy.com	Purchase Or	rder No	,						Quote ence:											1	US	ST	Г	R	CRA			Γ	OTHER	_	
Phone:	785-575-8113 Fax:	Project Name	e: J	C FAL	CCR					Project	t A	lice	Spi	ller 9	913-	563	3-140	03			s	ite Lo	ocati	on			_					
Request	ed Due Date/TAT: 7 day	Project Num	ber:					_		Profile	#: 9	657	, 1	_							1	s	STAT	_{E:}	_	KS	.	_				
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	Section D Valid Matrix (Required Client Information MATRIX	CODE	codes to left)) L	COLI	ECTED					Pi	rese	rvat	ives			N /×		N	T					Ì							
	DRINKING WATER WASTE WASTE WASTE WASTE WASTE PRODUCT SOIL/SOLID OIL SAMPLE ID WIPE	WT WW P SL OL WP	(see valid codes l		COMPOSITE START	COMPC END/G	SITE RAB	T COLLECTION	ERS							-	Test↓											Chlorine (Y/N)	601	f099	8c)
ITEM#	(A-Z, 0-9 / ,-) AIR OTHER Sample IDs MUST BE UNIQUE TISSUE	AR OT TS	MATRIX CODE	- 1	TE TIME	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H ₂ SO₄		NaOH	Na ₂ S ₂ O ₃	Methanol	Ι.	:£	Radium 226	Radium 228	Total Radium								Residual Chlori		e Project		
	FAA-3-090822		WT	g .		03/09،22	16.45		2		2	\neg		П		1			х	х		П	\exists	1		П	П	П				
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4	DUP-FAA-090822		WT _	3 .		03/09,22	14:30	ŀ	2	Н	1	2	\perp			╛	ļ	X	x	x	\perp	Ш	\perp	_	\perp		Ш	Ш				
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Page 17 of 2						SIGNATUR)	R	-	1		Ĺ	_				igned D/YY):			9/	9/22			1	тетр п	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)		Samples Intact (Y/N)

client: Evergy Kansus (entral, Inc. Profile # 9657, 1

Site: JEC FAL CCR

COC Line Item	Matrix	VG9H	Неэа	DG90	VG9U	DG9N	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	врзи	BP1N	BP3N	врзг	BP3S	врзс	BP3Z	WPDU	ZPLC	Other	
1	WT																					7									
2																															
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8																															
9																															
10																															
11																															
12																															

Container Codes

		Glass			Plastic		Misc.
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar	BP1C	1L NAOH plastic	11	Wipe/Swab
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar	BP1N	1L HNO3 plastic	SP5T	120mL Coliform Na Thiosulfate
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar	BP1S	1L H2SO4 plastic	ZPLC	Ziploc Bag
OG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide	BP1U	1L unpreserved plastic	AF	Air Filter
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass	BP1Z	1L NaOH, Zn Acetate	C	Air Cassettes
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass	BP2C	500mL NAOH plastic	R	Terracore Kit
OG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass	BP2N	500mL HNO3 plastic	U	Summa Can
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass	BP2S	500mL H2SO4 plastic		
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic		
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Acetate		Matrix
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass	BP3C	250mL NaOH plastic		
3G1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic - field filtered	WT	Water
3G3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic	SL	Solid
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass	BP3U	250mL unpreserved plastic	NAL	Non-aqueous Liquid
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass	BP3S	250mL H2SO4 plastic	OL	OIL
		AG5U	100mL unpres amber glass	BP3Z	250mL NaOH, Zn Acetate	WP	Wipe
						1	D : 11 NAC 1

BP4U

BP4N

BP4S

WPDU

125mL unpreserved plastic

125mL HNO3 plastic

125mL H2SO4 plastic

16oz unpresserved plstic

Work Order Number:

60409986

DW

Drinking Water



CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at https://info.pacelabs.com/hubfs/pas-standard-terms.pdf. Section B Section C Section A Invoice Information: **Required Client Information: Required Project Information:** Page: Of Report To: Attention: Company: Evergy Kansas Central, Inc. Jake Humphrey Address: Сору То: Company Name: Laura Hines, Samantha Kaney, Melissa Michels 400 E Van Buren St Suite 545, Phoenix, AZ 85004 Danielle Oberbroeckling Address: **Regulatory Agency** doberbroeckling@haleyaldrich.com Purchase Order #: Pace Quote: Email: Project Name: JEC FAL CCR RADCHEM Pace Project Manager: Phone: 507-251-2232 Fax: State / Location alice.spiller@pacelabs.com, Requested Due Date: Pace Profile #: Project #: 9657. line 7 KS Requested Analysis Filtered (Y/N) (see valid codes to left) C=COMP) Preservatives COLLECTED MATRIX SAMPLE TEMP AT COLLECTION Drinking Water (G=GRAB Waste Water WW Product SL OL WP AR OT **SAMPLE ID** Soil/Solid START END Oil One Character per box. Wipe MATRIX CODE (A-Z, 0-9 / , -) Other Methanol Sample Ids must be unique H2S04 ITEM NaOH DATE TIME DATE TIME 3 8 9 11 12 ADDITIONAL COMMENTS **RELINQUISHED BY / AFFILIATION** DATE TIME **ACCEPTED BY / AFFILIATION** DATE TIME SAMPLE CONDITIONS SAMPLER NAME AND SIGNATURE TEMP in C PRINT Name of SAMPLER: SIGNATURE of SAMPLER: **DATE Signed:**

Int	ternal Transfe	er Chain c	of Custod	ly -			<u> </u>	•,			yyy						inimaan oo oo oo oo oo oo oo oo oo oo oo oo oo	J.			• • • •
			Samples	s Pre-Logged	into eCC	C.		State Cert.		-	· ·	<s Υ</s 	'es		No		(/-	Pi	ace	Analytical www.pacelabs.com
	rkorder: 60409980	Workorder N	,	L CCR RadCl	nem		****	Owne	r Re	ceiv	red	Date	<u>:</u>	9/9/20				Reque	estec	d By:	10/11/2022
Alice Pace 9608 Lene	ort To e Spiller e Analytical Kansas 8 Loiret Blvd. exa, KS 66219 ne (913)599-5665		1638 Suites Green	et To Analytical Pittsb Roseytown Roa 2,3, & 4 sburg, PA 1566 (724)850-5606	d [*] 01	Pr	eserve	ed Con	ainer	The second second	ım 226 + QC Sheets	ım 228 + QC Sheets	Total Radium Calculation	Requ	uestec	I Analy	SIS				
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	HNO3			THE PARTY OF THE P		Radium	Radium	Tota			ezament kuzami et ez en (A Çan Gill) A Andre	CECTATED OF THE PROPERTY OF TH	SOCIAL SECULAR		A THE RESERVE THE PROPERTY OF	LAB USE ONLY
1	FAA-3-090822	PS	9/8/2022 16:45	60409980001	Water	2				W. Carrent	Х	Х	Х			TO COLUMNIA STATE OF THE STATE					
2	FAA-4-090822	P\$	9/8/2022 17:45	60409980002	Water	2			accounted to	Lianum (January)	X	Х	Х						igspace		
3	FAA-6-090822	PS	9/8/2022 14:25	60409980003	Water	2			-	шилен	Χ	Х	Χ								
4	DUP-FAA-090822	PS	9/8/2022 14:30	60409980004	Water	2					Х	X	X								
5									annia de la constanta												
Trar 1 2 3	nsfers Released By	~	Date/Time インスン	Received I		W Z	b	9	Date.			2	'S				Com	ments			
Co	oler Temperature on	Receipt	°C Cu	stody Seal `	Y or (1)		Rec	ived	lon	lce	Ϋ́	or	(N)	COLUMN		Sam	ples	Intac	et Y	or N
*** r	n order to maintain clie	ent confidentiality	, location/name	e of the sampl	ing site,	sampl							y no		lO;	# :	30	oc do) 52	21()5

30521605

Pittsburgh Lab Sample Condi	tion	Upo	n R	eceipt			
Pace Analytical Client Name:	+	Day	2 -	-165	Project #		
Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Clien	t 🗆	Comm	nercial	Pace Other	Label 85		
Tracking #: 5643 8496 5871		د.			LIMS Login (P	1	
Custody Seal on Cooler/Box Present: yes		no	Seal	ls intact: ☐ yes	Q110	-	
Thermometer Used	Туре	of Ice	: We	et Blue None			
Cooler Temperature Observed Temp		, C	Con	rection Factor:	°C Final Temp: °C		
Temp should be above freezing to 6°C						7	
		· · · ·	1	pH paper Lot#	Date and Initials of person examining contents:	<u>,</u>	
Comments:	Yes	No	N/A	1000921	1 +3 -7/1910	<u> </u>	
Chain of Custody Present:				[1. -		-	
Chain of Custody Filled Out:		1		2. -		1	
Chain of Custody Relinquished:	-	+	-	3.		-	
Sampler Name & Signature on COC:		-		4.		<u> </u>	
Sample Labels match COC:	Ľ∠ VT			5			8
			T	6			10/05/22
Samples Arrived within Hold Time: Short Hold Time Analysis (<72hr remaining):	 _	 		7.		ശ	10/
Rush Turn Around Time Requested:				8.		0	
Sufficient Volume:		 		9.		Ø	Date: (S
Correct Containers Used:	 	1		10.	, , , , , , , , , , , , , , , , , , , ,	冥	
-Pace Containers Used:				- 10.			o_E
Containers Intact:				11.		0521	
Orthophosphate field filtered		<u> </u>		12.		ന	PACE
Hex Cr Aqueous sample field filtered		ļ		13.		• •	- ''
Organic Samples checked for dechlorination:				14.			PM: CF1
Filtered volume received for Dissolved tests All containers have been checked for preservation.			_	15.			E 3
exceptions: VOA, coliform, TOC, O&G, Phenolics, Non-aqueous matrix	Rador	<u>1 </u>		16. PH < 2			
All containers meet method preservation requirements.				Initial when completed P5	Date/time of preservation		
				Lot # of added preservative			
Headspace in VOA Vials (>6mm):				17.			
Trip Blank Present:				18.			
Trip Blank Custody Seals Present		_					
Rad Samples Screened < 0.5 mrem/hr				Initial when completed:	Date: 1/11/72 Survey Meter 563		
Client Notification/ Resolution:							
Person Contacted:			Date/	Time:	Contacted By:		
Comments/ Resolution:							
☐ A check in this box indicates that addit	ional	infori	natio	n has been stored	in ereports.		

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

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



CHAIN-OF-CUSTODY / Analytical Request Document

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Section Required	d Client Information:	Section B Required Pr	roject Ir	formation	n;					tion C ce Info	C ormatic	on:															P	age:	1	of	1	
Company	EVERGY KANSAS CENTRAL, INC.	Report To:	Vieliss	a Miche	els, Samanti	na Kaney,	Danielle (Obe							yable						٦						_					
Address:	Jeffrey Energy Center (JEC)	Copy To: ,	Jared	Morriso	n, Jake Hun	nphrey, La	ura Hines		Com	pany N	Name:	Ε	VER	RGY	KAN	NSA	S C	EN'	TRA	L, IN	Id RE	GUL	ATO	DRY	AGE	NC	, 	_				
	818 Kansas Ave, Topeka, KS 66612								Addr	ess:	S	ee :	Sect	tion .	Α						Г	NF	PDES	; [, G	ROU	JND '	WAT	ER T	DRINKII	NG W/	ATER
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Phone:	785-575-8113 Fax:	Project Name	e: J	C FAL	CCR					Project	t A	lice	Spi	ller 9	913-	563	3-140	03			s	ite Lo	ocati	on			_					
Request	ed Due Date/TAT: 7 day	Project Num	ber:					_		Profile	#: 9	657	, 1	_							1	s	STAT	_{E:}	_	KS	.	_				
_		-							1							Т		R	equ	este	d Ana	alysis	s Fil	tere	d (Y/	N)						
	Section D Valid Matrix (Required Client Information MATRIX	CODE	codes to left)) L	COLI	ECTED					Pi	rese	rvat	ives			N /×		N	T					Ì							
	DRINKING WATER WASTE WASTE WASTE WASTE WASTE PRODUCT SOIL/SOLID OIL SAMPLE ID WIPE	WT WW P SL OL WP	(see valid codes l		COMPOSITE START	COMPC END/G	SITE RAB	T COLLECTION	ERS							-	Test↓											Chlorine (Y/N)	601	f099	8c)
ITEM#	(A-Z, 0-9 / ,-) AIR OTHER Sample IDs MUST BE UNIQUE TISSUE	AR OT TS	MATRIX CODE	- 1	TE TIME	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H ₂ SO₄		NaOH	Na ₂ S ₂ O ₃	Methanol	Ι.	:£	Radium 226	Radium 228	Total Radium								Residual Chlori		e Project		
	FAA-3-090822		WT	g .		03/09،22	16.45		2		2	\neg		П		1			х	х		П	\exists	1		П	П	П				
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Page 17 of 2						SIGNATUR)	R	-	1		Ĺ	_				igned D/YY):			9/	9/22			1	тетр п	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)		Samples Intact (Y/N)

client: Evergy Kansus (entral, Inc. Profile # 9657, 1

Site: JEC FAL CCR

COC Line Item	Matrix	VG9H	Неэа	DG90	VG9U	DG9N	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	врзи	BP1N	BP3N	врзг	BP3S	врзс	BP3Z	WPDU	ZPLC	Other	
1	WT																					7									
2																															
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9																															
10																															
11																															
12																															

Container Codes

		Glass			Plastic		Misc.
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar	BP1C	1L NAOH plastic	11	Wipe/Swab
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar	BP1N	1L HNO3 plastic	SP5T	120mL Coliform Na Thiosulfate
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar	BP1S	1L H2SO4 plastic	ZPLC	Ziploc Bag
OG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide	BP1U	1L unpreserved plastic	AF	Air Filter
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass	BP1Z	1L NaOH, Zn Acetate	C	Air Cassettes
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass	BP2C	500mL NAOH plastic	R	Terracore Kit
OG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass	BP2N	500mL HNO3 plastic	U	Summa Can
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass	BP2S	500mL H2SO4 plastic		
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic		
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Acetate		Matrix
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass	BP3C	250mL NaOH plastic		
3G1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic - field filtered	WT	Water
3G3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic	SL	Solid
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass	BP3U	250mL unpreserved plastic	NAL	Non-aqueous Liquid
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass	BP3S	250mL H2SO4 plastic	OL	OIL
		AG5U	100mL unpres amber glass	BP3Z	250mL NaOH, Zn Acetate	WP	Wipe
						1	D : 11 NAC 1

BP4U

BP4N

BP4S

WPDU

125mL unpreserved plastic

125mL HNO3 plastic

125mL H2SO4 plastic

16oz unpresserved plstic

Work Order Number:

60409986

DW

Drinking Water

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Quality Control Sample Performance Assessment

Test: Ra-228
Analyst: VAL
Date: 9/20/2022
Worklist: 68877
Matrix: WT

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
· ·	LCS68877	LCSD68877
Count Date:	9/29/2022	9/29/2022
Spike I.D.:	22-029	22-029
Decay Corrected Spike Concentration (pCi/mL):	19.905	19.905
Volume Used (mL):	0.20	0.20
Aliquot Volume (L, g, F):	0.804	0.807
Target Conc. (pCi/L, g, F):	4.951	4.932
Uncertainty (Calculated):	0.356	0.355
Result (pCi/L, g, F):	4.181	3.107
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.937	0.811
Numerical Performance Indicator:	-1.51	-4.04
Percent Recovery:	84.44%	62.99%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:		135%
Lower % Recovery Limits:	60%	60%

LCS68877 LCSD68877 4.181 0.937 3.107 0.811 NO 1.699 29.10% Pass Pass Pass	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
	LCSD68877 4.181 0.937 3.107 0.811 NO 1.699 29.10% Pass

Analyst Must Manually Enter All Fields Highlighted in Yellow.

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 Aliquot (L, g, F): MSD Aliquot (L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MSD Target Conc. (pCi/L, g, F): MSD Spike Uncertainty (calculated): Sample Result: Sample Result: Sample Result: Sample Result: Matrix Spike Result: 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: Matrix Spike Duplicate Result: Matrix Spike Duplicate Result: Matrix Spike Duplicate Result: Matrix Spike Duplicate Result: Matrix Spike Duplicate Result: Matrix Spike Duplicate Result: Matrix Spike Duplicate Result: Matrix Spike Duplicate Result: Matrix Spike Duplicate Result: Matrix Spike Duplicate Result: Matrix Spike Duplicate Result: Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): MS Percent Recovery: MSD Percent Recovery: MSD Percent Recovery: MSD Percent Recovery: MSD Percent Recovery: MSD Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MSD Status vs Recovery:	Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
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MS/MSD Lower % Recovery Limits:			

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 the lowest activity sample in this batch is greater than ten times the blank value, the blank is acceptable; otherwise this batch must be re-prepped.

N19/30/22

MB activity & MOC Past



Quality Control Sample Performance Assessment

Test: Ra-228
Analyst: VAL
Date: 9/20/2022
Worklist: 68877
Matrix: WT

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
· ·	LCS68877	LCSD68877
Count Date:	9/29/2022	9/29/2022
Spike I.D.:	22-029	22-029
Decay Corrected Spike Concentration (pCi/mL):	19.905	19.905
Volume Used (mL):	0.20	0.20
Aliquot Volume (L, g, F):	0.804	0.807
Target Conc. (pCi/L, g, F):	4.951	4.932
Uncertainty (Calculated):	0.356	0.355
Result (pCi/L, g, F):	4.181	3.107
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.937	0.811
Numerical Performance Indicator:	-1.51	-4.04
Percent Recovery:	84.44%	62.99%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:		135%
Lower % Recovery Limits:	60%	60%

LCS68877 LCSD68877 4.181 0.937 3.107 0.811 NO 1.699 29.10% Pass Pass Pass	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
	LCSD68877 4.181 0.937 3.107 0.811 NO 1.699 29.10% Pass

Analyst Must Manually Enter All Fields Highlighted in Yellow.

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 Aliquot (L, g, F): MSD Aliquot (L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MSD Target Conc. (pCi/L, g, F): MSD Spike Uncertainty (calculated): Sample Result: Sample Result: Sample Result: Sample Result: Matrix Spike Result: 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: Matrix Spike Duplicate Result: Matrix Spike Duplicate Result: Matrix Spike Duplicate Result: Matrix Spike Duplicate Result: Matrix Spike Duplicate Result: Matrix Spike Duplicate Result: Matrix Spike Duplicate Result: Matrix Spike Duplicate Result: Matrix Spike Duplicate Result: Matrix Spike Duplicate Result: Matrix Spike Duplicate Result: Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): MS Percent Recovery: MSD Percent Recovery: MSD Percent Recovery: MSD Percent Recovery: MSD Percent Recovery: MSD Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MSD Status vs Recovery:	Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
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MSD Status vs Numerical Indicator: MS Status vs Recovery:			
MS Status vs Recovery:			
MSD Status vs Recovery:		1	
MS/MSD Upper % Recovery Limits:		1	
MS/MSD Lower % Recovery Limits:			

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 the lowest activity sample in this batch is greater than ten times the blank value, the blank is acceptable; otherwise this batch must be re-prepped.

N19/30/22

MB activity & MOC Past



Quality Control Sample Performance Assessment

Test: Ra-226 Analyst: SLC

Pass

Date: 9/16/2022
Batch ID: 68876
Matrix: DW

Method Blank Assessment

MB Status vs. MDC:

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS68876	LCSD68876
Count Date:	9/23/2022	9/23/2022
Spike I.D.:	21-040	21-040
Spike Concentration (pCi/mL):	32.426	32.426
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.657	0.657
Target Conc. (pCi/L, g, F):	4.933	4.933
Uncertainty (Calculated):	0.232	0.232
Result (pCi/L, g, F):	5.715	4.277
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	1.174	0.962
Numerical Performance Indicator:	1.28	-1.30
Percent Recovery:	115.85%	86.70%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:		135%
Lower % Recovery Limits:	73%	73%

Duplicate Sample Assessment		1
Sample I.D.: Duplicate Sample I.D.: Sample Result (pCi/L, g, F): Sample Result Counting Uncertainty (pCi/L, g, F): Sample Duplicate Result (pCi/L, g, F): Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): Are sample and/or duplicate results below RL?	LCSD68876 5.715 1.174 4.277 0.962	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Numerical Performance Indicator:	1.858	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	28.78%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:		
% RPD Limit:	32%	

Analyst Must Manually Enter All Fields Highlighted in Yellow.

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

Matrix Spike/Matrix Sp	pike Duplicate Sample Assessment	
Matrix Spike Duplicat	Sample I.D. Sample MS I.D. Sample MS I.D. Sample MSD I.D. Sample MSD I.D. Sample Matrix Spike Result: Re Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Result Counting Uncertainty (pCi/L, g, F): Duplicate Numerical Performance Indicator: rcent Recoveries) MS/ MSD Duplicate RPD: SD 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:

(C))) (C)(E(1))

ralsalls





October 14, 2022

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

RE: Project: JEC FAL CCR

Pace Project No.: 60410001

Dear Jake Humphrey:

Enclosed are the analytical results for sample(s) received by the laboratory on September 09, 2022. 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 10/14/22

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

Sincerely,

Alice Spiller alice.spiller@pacelabs.com

(913)599-5665

Alice Spiller

(913)599-5665 PM Lab Management

Enclosures

cc: Laura Hines, Evergy, Inc. Samantha Kaney, Haley & Aldrich Melissa Michels, Evergy, Inc.

Danielle Oberbroeckling, Haley & Aldrich







CERTIFICATIONS

Project: JEC FAL CCR
Pace Project No.: 60410001

Pace Analytical Services Kansas

9608 Loiret Boulevard, Lenexa, KS 66219

Missouri Inorganic Drinking Water Certification #: 10090

Arkansas Drinking Water Arkansas Certification #: 22-031-0

Arkansas Drinking Water

Illinois Certification #: 2000302021-3

Iowa Certification #: 118

Kansas/NELAP Certification #: E-10116 Louisiana Certification #: 03055 Nevada Certification #: KS000212020-2 Oklahoma Certification #: 9205/9935 Florida: Cert E871149 SEKS WET Texas Certification #: T104704407-21-15 Utah Certification #: KS000212019-9 Illinois Certification #: 004592

Kansas Field Laboratory Accreditation: # E-92587 Missouri SEKS Micro Certification: 10070



SAMPLE SUMMARY

Project: JEC FAL CCR
Pace Project No.: 60410001

Lab ID	Sample ID	Matrix	Date Collected	Date Received	
60410001001	FAA-3-090822	Water	09/08/22 16:45	09/09/22 17:00	
60410001002	FAA-4-090822	Water	09/08/22 17:45	09/09/22 17:00	
60410001003	FAA-6-090822	Water	09/08/22 14:25	09/09/22 17:00	
60410001004	DUP-FAA-090822	Water	09/08/22 14:30	09/09/22 17:00	



SAMPLE ANALYTE COUNT

Project: JEC FAL CCR
Pace Project No.: 60410001

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60410001001	FAA-3-090822	EPA 200.7	MRV	3	PASI-K
		EPA 6010	MRV	1	PASI-K
		EPA 200.8	JGP	4	PASI-K
		SM 2540C	TML	1	PASI-K
		SM 4500-H+B	ET	1	PASI-K
		EPA 300.0	CRN2, RKA	3	PASI-K
60410001002	FAA-4-090822	EPA 200.7	MRV	3	PASI-K
		EPA 6010	MRV	1	PASI-K
		EPA 200.8	JGP	4	PASI-K
		SM 2540C	TML	1	PASI-K
		SM 4500-H+B	ET	1	PASI-K
		EPA 300.0	CRN2, RKA	3	PASI-K
0410001003	FAA-6-090822	EPA 200.7	MRV	3	PASI-K
		EPA 6010	MRV	1	PASI-K
		EPA 200.8	JGP	4	PASI-K
		SM 2540C	TML	1	PASI-K
		SM 4500-H+B	ET	1	PASI-K
		EPA 300.0	CRN2, RKA	3	PASI-K
0410001004	DUP-FAA-090822	EPA 200.7	MRV	3	PASI-K
		EPA 6010	MRV	1	PASI-K
		EPA 200.8	JGP	4	PASI-K
		SM 2540C	TML	1	PASI-K
		SM 4500-H+B	ET	1	PASI-K
		EPA 300.0	CRN2, RKA	3	PASI-K

PASI-K = Pace Analytical Services - Kansas City





PROJECT NARRATIVE

Project: JEC FAL CCR
Pace Project No.: 60410001

Date: October 14, 2022

Amended to report data from review/reanalysis of fluoride due to intereferences on original run, new data has been reported.



PROJECT NARRATIVE

Project: JEC FAL CCR
Pace Project No.: 60410001

Method: EPA 200.7

Description: 200.7 Metals, Total

Client: Evergy Kansas Central, Inc.

Date: October 14, 2022

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: 807547

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60410000001,60410030001

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

- MS (Lab ID: 3212528)
 - Calcium
- MSD (Lab ID: 3212529)
 - Calcium

Additional Comments:



PROJECT NARRATIVE

Project: JEC FAL CCR
Pace Project No.: 60410001

Method: EPA 6010
Description: 6010 MET ICP

Client: Evergy Kansas Central, Inc.

Date: October 14, 2022

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:



PROJECT NARRATIVE

Project: JEC FAL CCR
Pace Project No.: 60410001

Method: EPA 200.8

Description: 200.8 MET ICPMS

Client: Evergy Kansas Central, Inc.

Date: October 14, 2022

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:



PROJECT NARRATIVE

Project: JEC FAL CCR
Pace Project No.: 60410001

Method: SM 2540C

Description: 2540C Total Dissolved Solids **Client:** Evergy Kansas Central, Inc.

Date: October 14, 2022

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:



PROJECT NARRATIVE

Project: JEC FAL CCR
Pace Project No.: 60410001

Method: SM 4500-H+B

Description: 4500H+ pH, Electrometric **Client:** Evergy Kansas Central, Inc.

Date: October 14, 2022

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.

- DUP-FAA-090822 (Lab ID: 60410001004)
- FAA-3-090822 (Lab ID: 60410001001)
- FAA-4-090822 (Lab ID: 60410001002)
- FAA-6-090822 (Lab ID: 60410001003)

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: 807176

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

- DUP (Lab ID: 3211222)
 pH at 25 Degrees C
- **Additional Comments:**



PROJECT NARRATIVE

Project: JEC FAL CCR
Pace Project No.: 60410001

Method: EPA 300.0

Description: 300.0 IC Anions 28 Days **Client:** Evergy Kansas Central, Inc.

Date: October 14, 2022

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: 808515

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60410000004,60410030004

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

• MS (Lab ID: 3216066)

Chloride

• MSD (Lab ID: 3216067)

• Chloride

QC Batch: 811017

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60409975001,60409979004

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

• MS (Lab ID: 3225334)

Fluoride

• MS (Lab ID: 3225336)

• Fluoride

Additional Comments:

Analyte Comments:

QC Batch: 808515

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

• MS (Lab ID: 3216066)

Chloride

• MS (Lab ID: 3216068)

Sulfate

• MSD (Lab ID: 3216067)

Chloride



PROJECT NARRATIVE

Project: JEC FAL CCR
Pace Project No.: 60410001

Method: EPA 300.0

Description: 300.0 IC Anions 28 Days **Client:** Evergy Kansas Central, Inc.

Date: October 14, 2022

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



Project: JEC FAL CCR
Pace Project No.: 60410001

Date: 10/14/2022 03:44 PM

Sample: FAA-3-090822	Lab ID: 604	10001001	Collected: 09/08/2	22 16:45	Received: 09	/09/22 17:00 N	fatrix: 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	0.030	mg/L	0.0050	1	09/14/22 09:42	09/19/22 11:18	7440-39-3					
Boron, Total Recoverable	0.52	mg/L	0.10	1	09/14/22 09:42	09/19/22 11:18	7440-42-8					
Calcium, Total Recoverable	182	mg/L	0.20	1	09/14/22 09:42	09/19/22 11:18	7440-70-2					
6010 MET ICP	Analytical Met	hod: EPA 60	10 Preparation Meth	nod: EP	A 3010							
	Pace Analytical Services - Kansas City											
Lithium, Total Recoverable	0.016	mg/L	0.010	1	09/14/22 09:42	09/19/22 11:53	7439-93-2					
200.8 MET ICPMS Analytical Method: EPA 200.8 Preparation Method: EPA 200.8												
	Pace Analytica	Pace Analytical Services - Kansas City										
Arsenic, Total Recoverable	<0.0010	mg/L	0.0010	1	09/14/22 09:42	09/22/22 19:35	7440-38-2					
Cobalt, Total Recoverable	<0.0010	mg/L	0.0010	1	09/14/22 09:42	09/22/22 19:35	7440-48-4					
Molybdenum, Total Recoverable	0.0082	mg/L	0.0010	1	09/14/22 09:42	09/22/22 19:35	7439-98-7					
Selenium, Total Recoverable	<0.0010	mg/L	0.0010	1	09/14/22 09:42	09/22/22 19:35	7782-49-2					
2540C Total Dissolved Solids	Analytical Met	hod: SM 25	40C									
	Pace Analytica	al Services -	Kansas City									
Total Dissolved Solids	1220	mg/L	20.0	1		09/15/22 11:22						
4500H+ pH, Electrometric	Analytical Met	hod: SM 450	00-H+B									
• ,	Pace Analytical Services - Kansas City											
pH at 25 Degrees C	7.4	Std. Units	0.10	1		09/12/22 16:10		H6				
300.0 IC Anions 28 Days	Analytical Met	hod: EPA 30	0.00									
·	Pace Analytica	al Services -	Kansas City									
Chloride	95.5	mg/L	10.0	10		09/20/22 13:59	16887-00-6					
Fluoride	<0.20	mg/L	0.20	1		10/05/22 17:09	16984-48-8					
Sulfate	483	mg/L	50.0	50		09/20/22 14:12	14808-79-8					



Project: JEC FAL CCR
Pace Project No.: 60410001

Date: 10/14/2022 03:44 PM

Sample: FAA-4-090822	Lab ID: 604	10001002	Collected: 09/08/2	2 17:45	Received: 09	9/09/22 17:00	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 Analytic	al Services -	Kansas City								
Barium, Total Recoverable	0.051	mg/L	0.0050	1	09/14/22 09:42	09/19/22 11:20	7440-39-3				
Boron, Total Recoverable	0.80	mg/L	0.10	1	09/14/22 09:42	09/19/22 11:20	7440-42-8				
Calcium, Total Recoverable	164	mg/L	0.20	1	09/14/22 09:42	09/19/22 11:20	7440-70-2				
6010 MET ICP	Analytical Met	hod: EPA 60	10 Preparation Meth	nod: EP	A 3010						
	Pace Analytical Services - Kansas City										
Lithium, Total Recoverable	0.023	mg/L	0.010	1	09/14/22 09:42	09/19/22 11:55	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	09/14/22 09:42	09/22/22 19:52	2 7440-38-2				
Cobalt, Total Recoverable	0.0018	mg/L	0.0010	1	09/14/22 09:42	09/22/22 19:52	2 7440-48-4				
Molybdenum, Total Recoverable	0.011	mg/L	0.0010	1	09/14/22 09:42	09/22/22 19:52	2 7439-98-7				
Selenium, Total Recoverable	<0.0010	mg/L	0.0010	1	09/14/22 09:42	09/22/22 19:52	2 7782-49-2				
2540C Total Dissolved Solids	Analytical Met	hod: SM 254	40C								
	Pace Analytic	al Services -	Kansas City								
Total Dissolved Solids	1250	mg/L	20.0	1		09/15/22 11:22	2				
4500H+ pH, Electrometric	Analytical Met	Analytical Method: SM 4500-H+B									
• /	Pace Analytical Services - Kansas City										
pH at 25 Degrees C	7.1	Std. Units	0.10	1		09/12/22 16:10)	H6			
300.0 IC Anions 28 Days	Analytical Met	hod: EPA 30	0.00								
-	Pace Analytic	al Services -	Kansas City								
Chloride	96.2	mg/L	10.0	10		09/20/22 14:37	7 16887-00-6				
Fluoride	0.24	mg/L	0.20	1		10/05/22 17:2	1 16984-48-8				
Sulfate	533	mg/L	50.0	50		09/20/22 14:50	14808-79-8				



Project: JEC FAL CCR
Pace Project No.: 60410001

Date: 10/14/2022 03:44 PM

Sample: FAA-6-090822	Lab ID: 604	10001003	Collected: 09/08/2	22 14:25	Received: 09	9/09/22 17:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua			
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7										
	Pace Analytic	al Services -	Kansas City								
Barium, Total Recoverable	0.040	mg/L	0.0050	1	09/14/22 09:42	09/19/22 11:22	7440-39-3				
Boron, Total Recoverable	2.0	mg/L	0.10	1	09/14/22 09:42	09/19/22 11:22	7440-42-8				
Calcium, Total Recoverable	132	mg/L	0.20	1	09/14/22 09:42	09/19/22 11:22	7440-70-2				
6010 MET ICP	Analytical Met	hod: EPA 60	010 Preparation Met	hod: EP	A 3010						
	Pace Analytical Services - Kansas City										
Lithium, Total Recoverable	0.015	mg/L	0.010	1	09/14/22 09:42	09/19/22 12:07	7439-93-2				
200.8 MET ICPMS	Analytical Met	hod: EPA 20	0.8 Preparation Met	thod: EF	A 200.8						
	Pace Analytical Services - Kansas City										
Arsenic, Total Recoverable	0.0053	mg/L	0.0010	1	09/14/22 09:42	09/22/22 20:01	7440-38-2				
Cobalt, Total Recoverable	0.0019	mg/L	0.0010	1	09/14/22 09:42	09/22/22 20:01	7440-48-4				
Molybdenum, Total Recoverable	0.34	mg/L	0.0010	1	09/14/22 09:42	09/22/22 20:01	7439-98-7				
Selenium, Total Recoverable	0.0021	mg/L	0.0010	1	09/14/22 09:42	09/22/22 20:01	7782-49-2				
2540C Total Dissolved Solids	Analytical Met	hod: SM 254	40C								
	Pace Analytic	al Services -	Kansas City								
Total Dissolved Solids	1820	mg/L	66.7	1		09/15/22 11:22	2				
4500H+ pH, Electrometric	Analytical Met	hod: SM 450	00-H+B								
• ,	Pace Analytic	al Services -	Kansas City								
pH at 25 Degrees C	7.4	Std. Units	0.10	1		09/12/22 16:10)	H6			
300.0 IC Anions 28 Days	Analytical Met	hod: EPA 30	0.0								
Pace Analytical Services - Kansas City											
Chloride	65.8	mg/L	10.0	10		09/20/22 15:40	16887-00-6				
Fluoride	0.35	mg/L	0.20	1		10/05/22 17:58	3 16984-48-8				
Sulfate	1170	mg/L	100	100		09/21/22 16:03	3 14808-79-8				



Project: JEC FAL CCR
Pace Project No.: 60410001

Date: 10/14/2022 03:44 PM

Sample: DUP-FAA-090822	Lab ID: 604	110001004	Collected: 09/08/2	2 14:30	Received: 09	9/09/22 17:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua			
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7										
	Pace Analytical Services - Kansas City										
Barium, Total Recoverable	0.039	mg/L	0.0050	1	09/14/22 09:42	09/19/22 11:24	7440-39-3				
Boron, Total Recoverable	2.0	mg/L	0.10	1	09/14/22 09:42	09/19/22 11:24	7440-42-8				
Calcium, Total Recoverable	128	mg/L	0.20	1	09/14/22 09:42	09/19/22 11:24	7440-70-2				
6010 MET ICP	Analytical Met	thod: EPA 60	10 Preparation Meth	nod: EP	A 3010						
	Pace Analytical Services - Kansas City										
Lithium, Total Recoverable	0.013	mg/L	0.010	1	09/14/22 09:42	09/19/22 12:09	7439-93-2				
200.8 MET ICPMS Analytical Method: EPA 200.8 Preparation Method: EPA 200.8											
	Pace Analytic	Pace Analytical Services - Kansas City									
Arsenic, Total Recoverable	0.0053	mg/L	0.0010	1	09/14/22 09:42	09/22/22 20:09	7440-38-2				
Cobalt, Total Recoverable	0.0019	mg/L	0.0010	1	09/14/22 09:42	09/22/22 20:09	7440-48-4				
Molybdenum, Total Recoverable	0.36	mg/L	0.0010	1	09/14/22 09:42	09/22/22 20:09	7439-98-7				
Selenium, Total Recoverable	0.0021	mg/L	0.0010	1	09/14/22 09:42	09/22/22 20:09	7782-49-2				
2540C Total Dissolved Solids	Analytical Met	thod: SM 254	10C								
	Pace Analytic	al Services -	Kansas City								
Total Dissolved Solids	1910	mg/L	66.7	1		09/15/22 11:22	2				
4500H+ pH, Electrometric	Analytical Met	thod: SM 450	00-H+B								
•	Pace Analytic	al Services -	Kansas City								
pH at 25 Degrees C	7.5	Std. Units	0.10	1		09/12/22 16:10)	H6			
300.0 IC Anions 28 Days	Analytical Met	thod: EPA 30	0.0								
	Pace Analytic										
Chloride	65.6	mg/L	10.0	10		09/20/22 16:18	3 16887-00-6				
Fluoride	0.36	mg/L	0.20	1		10/05/22 19:02					
Sulfate	1090	mg/L	100	100		09/21/22 17:06	14808-79-8				



QUALITY CONTROL DATA

Project: JEC FAL CCR
Pace Project No.: 60410001

Barium Boron Calcium

QC Batch: 807547 Analysis Method: EPA 200.7

QC Batch Method: EPA 200.7 Analysis Description: 200.7 Metals, Total

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60410001001, 60410001002, 60410001003, 60410001004

METHOD BLANK: 3212526 Matrix: Water

Associated Lab Samples: 60410001001, 60410001002, 60410001003, 60410001004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
	mg/L	<0.0050	0.0050	09/19/22 10:56	
	mg/L	<0.10	0.10	09/19/22 10:56	
	mg/L	< 0.20	0.20	09/19/22 10:56	

LABORATORY CONTROL SAMPLE: 3212527

Date: 10/14/2022 03:44 PM

		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Barium	mg/L		1.0	100	85-115	
Boron	mg/L	1	0.93	93	85-115	
Calcium	mg/L	10	9.6	96	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3212528 3212529												
			MS	MSD								
		60410000001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Barium	mg/L	0.039	1	1	1.0	1.0	97	101	70-130	4	20	
Boron	mg/L	1.1	1	1	1.9	2.0	87	92	70-130	3	20	
Calcium	mg/L	170	10	10	169	175	-6	45	70-130	3	20	M1

MATRIX SPIKE SAMPLE:	3212530						
		60410030001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Barium	mg/L	0.078	1	1.1	101	70-130	
Boron	mg/L	1.7	1	2.6	93	70-130	
Calcium	mg/L	210	10	217	75	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.



QUALITY CONTROL DATA

Project: JEC FAL CCR
Pace Project No.: 60410001

Date: 10/14/2022 03:44 PM

QC Batch: 807548 Analysis Method: EPA 200.8
QC Batch Method: EPA 200.8 Analysis Description: 200.8 MET

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60410001001, 60410001002, 60410001003, 60410001004

METHOD BLANK: 3212534 Matrix: Water

Associated Lab Samples: 60410001001, 60410001002, 60410001003, 60410001004

Parameter	Units	Result	Limit	Analyzed	Qualifiers
Arsenic	mg/L	<0.0010	0.0010	09/22/22 19:29	
Cobalt	mg/L	< 0.0010	0.0010	09/22/22 19:29	
Molybdenum	mg/L	< 0.0010	0.0010	09/22/22 19:29	
Selenium	mg/L	< 0.0010	0.0010	09/22/22 19:29	

LABORATORY CONTROL SAMPLE:	3212535					
	11.5	Spike	LCS	LCS	% Rec	0 110
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Arsenic	mg/L	0.04	0.040	100	85-115	
Cobalt	mg/L	0.04	0.040	99	85-115	
Molybdenum	mg/L	0.04	0.040	100	85-115	
Selenium	mg/L	0.04	0.043	107	85-115	

MATRIX SPIKE & MATRIX SP	IKE DUPLIC	CATE: 3212	536		3212537							
			MS	MSD								
	6	0410001001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Arsenic	mg/L	< 0.0010	0.04	0.04	0.040	0.040	99	98	70-130	0	20	
Cobalt	mg/L	< 0.0010	0.04	0.04	0.039	0.039	97	97	70-130	0	20	
Molybdenum	mg/L	0.0082	0.04	0.04	0.052	0.052	109	109	70-130	0	20	
Selenium	mg/L	<0.0010	0.04	0.04	0.039	0.039	98	96	70-130	2	20	

MATRIX SPIKE SAMPLE:	3212538						
		60410030007	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Arsenic	mg/L	0.11	0.04	0.15	88	70-130	
Cobalt	mg/L	< 0.0010	0.04	0.038	94	70-130	
Molybdenum	mg/L	0.034	0.04	0.077	109	70-130	
Selenium	mg/L	<1.0 ug/L	0.04	0.037	93	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.



QUALITY CONTROL DATA

Project: JEC FAL CCR
Pace Project No.: 60410001

QC Batch: 807549 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60410001001, 60410001002, 60410001003, 60410001004

METHOD BLANK: 3212539 Matrix: Water
Associated Lab Samples: 60410001001, 60410001002, 60410001003, 60410001004

Blank Reporting

Parameter Units Result Limit Analyzed Qualifiers

Lithium mg/L <0.010 0.010 09/19/22 11:51

LABORATORY CONTROL SAMPLE: 3212540

Date: 10/14/2022 03:44 PM

Spike LCS LCS % Rec Conc. Result % Rec Limits Qualifiers Parameter Units Lithium mg/L 1.0 100 80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3212541 3212542

MS MSD

60410001002 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Conc. Conc. Result Result % Rec % Rec **RPD** RPD Qual Result Limits 0.023 105 20 Lithium mg/L 1.1 1.1 104 75-125

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.



Project: JEC FAL CCR
Pace Project No.: 60410001

QC Batch: 807819 Analysis Method: SM 2540C

QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60410001001, 60410001002, 60410001003, 60410001004

METHOD BLANK: 3213723 Matrix: Water
Associated Lab Samples: 60410001001, 60410001002, 60410001003, 60410001004

Blank Reporting

Parameter Units Result Limit Analyzed Qualifiers

Total Dissolved Solids mg/L <5.0 5.0 09/15/22 11:19

LABORATORY CONTROL SAMPLE: 3213724

Spike LCS LCS % Rec Conc. Result % Rec Limits Qualifiers Parameter Units **Total Dissolved Solids** mg/L 1000 1040 104 80-120

SAMPLE DUPLICATE: 3213725

60409826001 Dup Max Parameter Units Result Result **RPD RPD** Qualifiers 571 **Total Dissolved Solids** mg/L 552 3 10

SAMPLE DUPLICATE: 3213726

Date: 10/14/2022 03:44 PM

60410000001 Dup Max RPD RPD Parameter Units Result Result Qualifiers Total Dissolved Solids 1170 mg/L 1200 3 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.



QUALITY CONTROL DATA

Project: JEC FAL CCR
Pace Project No.: 60410001

QC Batch: 807176 Analysis Method: SM 4500-H+B
QC Batch Method: SM 4500-H+B Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60410001001, 60410001002, 60410001003, 60410001004

SAMPLE DUPLICATE: 3211222

Date: 10/14/2022 03:44 PM

60409979006 Dup Max Parameter Units Result RPD RPD Qualifiers Result 7.1 pH at 25 Degrees C 7.5 5 D6,H6 Std. Units 6

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.



Project: JEC FAL CCR
Pace Project No.: 60410001

Chloride

Sulfate

Chloride

Sulfate

QC Batch: 808515 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: 60410001001, 60410001002, 60410001003, 60410001004

METHOD BLANK: 3216064 Matrix: Water
Associated Lab Samples: 60410001001, 60410001002, 60410001003, 60410001004

Blank Reporting Qualifiers Parameter Units Result Limit Analyzed <1.0 1.0 09/20/22 09:08 mg/L mg/L <1.0 1.0 09/20/22 09:08

METHOD BLANK: 3218088 Matrix: Water
Associated Lab Samples: 60410001001, 60410001002, 60410001003, 60410001004

Blank Reporting Parameter Units Result Limit Analyzed Qualifiers <1.0 09/21/22 08:57 mg/L 1.0 09/21/22 08:57 mg/L <1.0 1.0

LABORATORY CONTROL SAMPLE: 3216065

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

LABORATORY CONTROL SAMPLE: 3218089

Date: 10/14/2022 03:44 PM

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Chloride 4.7 94 90-110 mg/L 5 Sulfate 5 4.8 96 90-110 mg/L

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3216066 3216067

Parameter	Units	60410000004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride Sulfate	mg/L mg/L	137 18.7	50 500	50 500	227 1500	207 1510	179 297	140 297	80-120 80-120	9	15 15	E,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.



QUALITY CONTROL DATA

Project: JEC FAL CCR
Pace Project No.: 60410001

Date: 10/14/2022 03:44 PM

MATRIX SPIKE SAMPLE:	3216068						
		60410030004	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Chloride	mg/L	248	250	484	94	80-120	
Sulfate	mg/L	1600	500	2070	93	80-120 E	Ē

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.



Project: JEC FAL CCR
Pace Project No.: 60410001

QC Batch: 811017 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: 60410001001, 60410001002

METHOD BLANK: 3225332 Matrix: Water

Associated Lab Samples: 60410001001, 60410001002

Blank Reporting
Parameter Units Result Limit Analyzed Qualifiers

Fluoride mg/L <0.20 0.20 10/05/22 11:28

LABORATORY CONTROL SAMPLE: 3225333

Date: 10/14/2022 03:44 PM

Spike LCS LCS % Rec Conc. Result % Rec Limits Qualifiers Parameter Units Fluoride 2.5 2.5 100 90-110 mg/L

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3225334 3225335

MSD MS 60409975001 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Conc. Conc. Result Result % Rec **RPD** RPD Qual Result % Rec Limits 15 M1 Fluoride mg/L < 0.20 2.5 2.5 2.1 2.2 77 81 80-120

MATRIX SPIKE SAMPLE: 3225336 60409979004 MS MS % Rec Spike Parameter Units Result Conc. Result % Rec Limits Qualifiers < 0.20 Fluoride 2.5 1.0 37 80-120 M1 mg/L

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.



Project: JEC FAL CCR
Pace Project No.: 60410001

QC Batch: 811018 Analysis Method: QC Batch Method: EPA 300.0 Analysis Description:

Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Kansas City

EPA 300.0

Associated Lab Samples: 60410001003, 60410001004

METHOD BLANK: 3225338 Matrix: Water

Associated Lab Samples: 60410001003, 60410001004

Blank Reporting
Parameter Units Result Limit Analyzed Qualifiers

Fluoride mg/L <0.20 0.20 10/05/22 17:33

LABORATORY CONTROL SAMPLE: 3225339

Date: 10/14/2022 03:44 PM

Spike LCS LCS % Rec Conc. Result % Rec Limits Qualifiers Parameter Units Fluoride 2.5 2.6 102 90-110 mg/L

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3225340 3225341

MSD MS 60410001003 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Conc. Conc. Result Result % Rec % Rec **RPD** RPD Qual Result Limits Fluoride mg/L 0.35 2.5 2.5 2.9 2.9 101 103 80-120 15

MATRIX SPIKE SAMPLE: 3225342 % Rec 60410031001 MS MS Spike Parameter Units Result Conc. Result % Rec Limits Qualifiers < 0.20 Fluoride 2.5 2.5 94 80-120 mg/L

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.



QUALIFIERS

Project: JEC FAL CCR
Pace Project No.: 60410001

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

Date: 10/14/2022 03:44 PM

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.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: JEC FAL CCR
Pace Project No.: 60410001

Date: 10/14/2022 03:44 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60410001001	FAA-3-090822	EPA 200.7	807547	EPA 200.7	807606
60410001002	FAA-4-090822	EPA 200.7	807547	EPA 200.7	807606
60410001003	FAA-6-090822	EPA 200.7	807547	EPA 200.7	807606
60410001004	DUP-FAA-090822	EPA 200.7	807547	EPA 200.7	807606
60410001001	FAA-3-090822	EPA 3010	807549	EPA 6010	807608
60410001002	FAA-4-090822	EPA 3010	807549	EPA 6010	807608
60410001003	FAA-6-090822	EPA 3010	807549	EPA 6010	807608
60410001004	DUP-FAA-090822	EPA 3010	807549	EPA 6010	807608
60410001001	FAA-3-090822	EPA 200.8	807548	EPA 200.8	807607
60410001002	FAA-4-090822	EPA 200.8	807548	EPA 200.8	807607
60410001003	FAA-6-090822	EPA 200.8	807548	EPA 200.8	807607
60410001004	DUP-FAA-090822	EPA 200.8	807548	EPA 200.8	807607
60410001001	FAA-3-090822	SM 2540C	807819		
0410001002	FAA-4-090822	SM 2540C	807819		
60410001003	FAA-6-090822	SM 2540C	807819		
60410001004	DUP-FAA-090822	SM 2540C	807819		
60410001001	FAA-3-090822	SM 4500-H+B	807176		
60410001002	FAA-4-090822	SM 4500-H+B	807176		
60410001003	FAA-6-090822	SM 4500-H+B	807176		
60410001004	DUP-FAA-090822	SM 4500-H+B	807176		
60410001001	FAA-3-090822	EPA 300.0	808515		
60410001001	FAA-3-090822	EPA 300.0	811017		
60410001002	FAA-4-090822	EPA 300.0	808515		
60410001002	FAA-4-090822	EPA 300.0	811017		
60410001003	FAA-6-090822	EPA 300.0	808515		
60410001003	FAA-6-090822	EPA 300.0	811018		
60410001004	DUP-FAA-090822	EPA 300.0	808515		
60410001004	DUP-FAA-090822	EPA 300.0	811018		



DC#_Title: ENV-FRM-LENE-0009_Sample (



Revision: 2 Effective Date: 01/12/2022

Client Name: Fueray Kansas Centra		
	PEX D ECI D	Pace □ Xroads □ Client ★ Other □
	e Shipping Label Use	•
Custody Seal on Cooler/Box Present: Yes □ No □	Seals intact: Yes [•
Packing Material: Bubble Wrap □ Bubble Bags □		Nonex⊟ Other □
	Ice: (Wet Blue No	•
Cooler Temperature (°C): As-read O.7 Corr. Facto	or Correc	ted 0.7 Date and initials of person examining contents: Be 4110
Temperature should be above freezing to 6°C		DALIMINING SOMETICS. 73_ 1/10
Chain of Custody present:	¥Yes □No □N/A	
Chain of Custody relinquished:	dYes □No □N/A	
Samples arrived within holding time:	ÄdYes □No □N/A	
Short Hold Time analyses (<72hr):	□Yes ♣No □N/A	
Rush Turn Around Time requested:	□Yes ဩMo □N/A	
Sufficient volume:	☑Yes □No □N/A	
Correct containers used:	MYes □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 □Wo □N/A	
Filtered volume received for dissolved tests?	□Yes No □N/A	
Sample labels match COC: Date / time / ID / analyses	¥ZYes □No □N/A	
Samples contain multiple phases? Matrix:	□Yes - No □N/A	
Containers requiring pH preservation in compliance?	¥ Yes □No □N/A	List sample IDs, volumes, lot #'s of preservative and the
(HNO ₃ , H ₂ SO ₄ , HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO)	Calmal	date/time added.
(Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO) Cyanide water sample checks:	was	
Lead acetate strip turns dark? (Record only)	□Yes □No	
Potassium iodide test strip turns blue/purple? (Preserve)	□Yes □No	
Trip Blank present:	□Yes Zano □N/A	
Headspace in VOA vials (>6mm):	□Yes ÆNo □N/A	
Samples from USDA Regulated Area: State:	□Yes 🇖No □N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	□Yes 12 No □N/A	
Client Notification/ Resolution: Copy COC to	Client? Y / N	Field Data Required? Y / N
Person Contacted: Date/Tir		
Comments/ Resolution: Sample collection date entered or used to reference correct collection		ate column incorrectly. COC Sect D Sample ID name was
Project Manager Review:	Date	e:



CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section	ι Δ		Saatian D									_															_				
Require	d Client Information:		Section B Required Pro	ject In	formation:						tion ice Inf		tion:															age:	1	of	1
Compan		NSAS CENTRAL, INC.	Report To: N	leliss	a Michels	, Samanth	na Kaney,	Danielle	Obe	Atter	ntion:			ounts	Pay	able					\neg						_				
Address	Jeffrey Energ	y Center (JEC)	Copy To: J	ared	Morrison,	Jake Hun	phrey, _a	ura Hines	3	Com	pany	Name	e: E	VER	GY	KAN:	SAS	CEI	VTR.	AL,	ING.	REG	ULA	ror'	/ AG	FNC	Y.				
	818 Kansas A	ve, Topeka, KS 66612								Addr				Secti					_		_	_		_			_	\A/A T	ER [DBINIZINI	G WATER
Email To	melissa.mich	els@evergy.com	Purchase Ord	er No.							Quote	e		_							_		UST			RCR.		**^1		OTHER	GWATER
Phone:	785-575-8113	Fax	Project Name	JI	C FAL C	CR			-	Pace	Projec	ct	Alice	Spil	ler 9	13-5	63-1	403		_	-		Loca	_		RCR.				UTHER	
Reques	ed Due Date/TAT:	7 day	Project Numb	er:	GEO N.S. A.S.A.					Mana Pace	ger: Profile								_	_	\dashv	Site				K	S				
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	Section D	Valid Matrix O	odes T	e /					Т	Г	Т						╆	_	tequ	Jest	ed A	naiy	sis F	Inter	ea (1	(/N)	_	₩			
	Required Client Informati	on <u>MATRIX</u>	CODE	codes to left)		COLL	ECTED				L	F	rese	ervati	ves		N/W	N	N	N	N	N N	٧								
		DRINKING WATER WASTE WASTE WATER PRODUCT SOIL/SOLID OIL	DW WT WW P SL OL	(see valid code:		MPOSITE FART	COMPO END/GF	SITE	COLLECTION									*8	S**									(Y/N)	60	4100	
ITEM#	SAMPLI (A-Z, 0-9 / Sample IDs MUST	EID WIPE AIR ,-) OTHER	DATE	TIME	DATE	TIME	SAMPLE TEMP AT CC	# OF CONTAINERS	Unpreserved	H₂SO₄	HNO3	NaOH	Na ₂ S ₂ O ₃	Methanol	↓ Analysis Test	Meta	Total Meta	H+B	300: CI, F, SO4	2540C IDS	oo to Total El					Residual Chlorine (Y/N)	600	41001 41001 Project N	lo./ Lab I.D.		
_ 1		FAA-3-090822	V	WT G 03/09/22 16:45 - 5								П	2	Т	П	┰	T	×	x	X		x 3		П	\dashv	┪	_	П			
2		FAA-4-090822	v	VT (· •	:=x	03/09/22	17:45		5	3	П	2				1	×	x	х		x 3		П		T		П			
3		FAA-6-090822	lv	VT (a .	as:	03/09/22	14:25		5	3	П	2				1	x	х	x	х	x)	(П			
4	D	UP-FAA-090822	V	VT (3		03/09/22	14:30	١.	5	3		2				1	x	х	x	х	x s	√	П	T		Т	П			
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200.8 To	tal Metals**: As, Co, Mo	, Se,											_																-,-		
6010 To	al Metals***: Li																														
Page 29						SAMPL	ER NAME A	ND SIGN	ATUF	RE																	1	ပ္	e (oler	Intact ()
је 2							PRINT Nam	e of SAMP	LER:	Jas	on R	R. Fra	anks	_		1											7	Temp in °C	Received on Ice (Y/N)	stod)	Y/N)
9 of 3				SIGNATUR				7		14	-	1		6		ATE S				ç	9/9/2	2			Ter	Rece	Custody Sealed Cooler (Y/N)	Samples In (Y/N)			

client: Every Kunsas Central

Site: JEC FAL CCR

Profile #

Notes

COC Line Item	Matrix	VG9H	реэн	D690	NG9N	DG9O	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG36	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	вРзи	BP1N	BP3N	ВРЗЕ	BP3S	врзс	вР3Z	WPDU	ZPLC	Other	
1	W																		I		2		2								
2	W																		1		2		2								
3	4						7												J		2		2								
4	WT																		1		2		2								
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9																															
10															-																
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12																															

Container Codes

Codes							
		Glass			Plastic		Misc.
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil ja-	BP1C	1L NAOH plastic	1	Wipe/Swab
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil ja-	BP1N	1L HNO3 plastic	SP5T	120mL Coliform Na Thiosulfate
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil ja-	BP1S	1L H2SO4 plastic	ZPLC	Ziploc Bag
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide	BP1U	1L unpreserved plastic	AF	Air Filter
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass	BP1Z	1L NaOH, Zn Acetate	C	Air Cassettes
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass	BP2C	500mL NAOH plastic	R	Terracore Kit
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass	BP2N	500mL HNO3 plastic	U	Summa Can
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass	BP2S	500mL H2SO4 plastic		
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic		
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Acetate		Matrix
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass	BP3C	250mL NaOH plastic		Matrix
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic - field filtered	WT	Water
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic	SL	Solid
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass	BP3U	250mL unpreserved plastic	NAL	Non-aqueous Liquid
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass	BP3S	250mL H2SO4 plastic	OL	OIL
	***	AG5U	100mL unpres amber glass	BP3Z	250mL NaOH, Zn Acetate	WP	Wipe
		-		BP4U	125mL unpreserved plastic	DW	Drinking Water
				BP4N	125mL HNO3 plastic		**

BP4S

WPDU

Work Order Number:

604/00/

125mL H2SO4 plastic

16oz unpresserved plstic



CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section Require	1 A d Client Information:		Section B Required F		t Infor	mation:						tion (tion.															Page:		of		
Compar		AS CENTRAL, INC.	Report To:									ntion:			ounts	Pay	/able											<u> </u>					_
Address	400 E Van Buren	St	Сору То:	Lau	ra Hi	nes, Sam	antha Ka	ney, Meli	ssa Mich	els	Com	npany N	Name	e: E	VER	GY	KAN	SAS	CEI	NTR	AL, II	VC F	REGI	JLAT	ORY	/ AG	ENC	CY					
	Suite 545, Phoen	ix, AZ 85004		Dan	nielle	Oberbroe	eckling				Addr				Sect							-		NPDE:					WAT	ER 🗖	DRINKING	3 WATER	
Email To	doberbroeckling@	haleyaldrich.com	Purchase C	Order I	No.:							Quote rence:												JST			RCR	2A			OTHER		
Phone:	507-251-2232 Fa	X:	Project Nan	ne:	JEC	FAL CC	R				_	Project	t	Alice	Spil	ler 9	13-5	63-1	403				Site	Locat	tion								
Reques	ted Due Date/TAT: 7 d	lay	Project Nur	mber:								Profile	#:	9657	7, 6							┪		STA	TE:	_		(S					
																				Requ	ueste	d A	naly	sis Fi	Iter	ed (\	//N)						
	Section D Required Client Information	Valid Matrix C	Codes CODE	left)	P)		COLL	ECTED					,	Dr∆s	ervat	ives		↓ N/∀															
	SAMPLE I	DRINKING WATER WATER WASTE WATER PRODUCT SOIL/SOLID OIL WIPE	DW WT WW P SL OL WP	(see valid codes to left)	(G=GRAB C=COMP)	COMPOSI		COMPC END/G	OSITE RAB	COLLECTION	RS							→	*	stals**		4	*						ne (Y/N)				
ITEM #	(A-Z, 0-9 / ,-) Sample IDs MUST BE U	OTHER	AR OT TS	MATRIX CODE	SAMPLE TYPE (DATE	NAPLE TEMP AT OF CONTAINEF INDESERVED SSO4 NO3 CI aOH a2S2O3 ethanol ther Analysis Tes NO.7 Total Mer NO.7 Total Mer NO.8 Total Mer NO.8 Total Mer NO.9 CI, F, SO4 NO: CI, F, SO4 NO: CI, F, SO4 NO: CI, F, SO4																Residual Chlorin	Pace	Project N	lo./ Lab I.D.							
1												Ш		4	╧	Ц	4	4	L		Ш		\perp	Ш		4	4	_					_
2											<u> </u>	Ш		4	_	Ш	4	4	L	_	Ш	_	\perp	Ш			_						_
3												Ш		_	\perp	Ш	_	4	L	_	Ш		\perp	Ш		_							_
4										_		\perp		_	\bot	Ш	_	4	L	-	Н		\perp	\bot		4	4		_				_
5												+		_	+	Н		4	H		Н	_	+	\perp		_	\perp	_	\bot				_
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	ADDITIONAL CO	DMMENTS		REL	INQU	ISHED BY /	AFFILIATION	ON	DATI	•		TIME				ACC	CEPTE	D BY	//AF	FILIA	TION			DATE	■	Т	IME			SAMF	LE CONDIT	IONS	
200.7 To	otal Metals*: B, Ca, Ba,																																_
200.8 To	otal Metals**: As, Co, Mo, Se,																																_
6010 To	tal Metals***: Li																				+					_							
																							+					+					_
							SAMPLE	R NAME A	ND SIGNA	TUR	<u> </u>																		O	u	p e v	a dt	_
								PRINT Nan	ne of SAMF	LER:	:																	7	Temp in °C	Received on Ice (Y/N)	ly Sea ∋r (Y/ľ	es Int //N)	
																	Signe								Tem	Rece Ice	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)					