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2022 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT 322 LANDFILL TECUMSEH ENERGY CENTER TECUMSEH, KANSAS

by Haley & Aldrich, Inc. Cleveland, Ohio

for Evergy Kansas Central, Inc. Topeka, Kansas

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Table of Contents

1.	Intro	oductio	on	1
	1.1 40 CFR § 257.90(E)(6) SUMMARY		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	CFR § 25	57.90 Applicability	4
	2.1	40 CFF	R § 257.90(A)	4
	2.2	40 CFF	R § 257.90(E) – SUMMARY	4
		2.2.1	Status of the Groundwater Monitoring Program	4
		2.2.2	Key Actions Completed	4
		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 CFF	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



List of Tables

Table No.	Title
I	Summary of Analytical Results – 2022 Assessment Monitoring
II	Assessment Groundwater Monitoring – Detected Appendix IV GWPS – September 2021 Sampling Events
III	Assessment Groundwater Monitoring – Detected Appendix IV GWPS – March 2022 Sampling Events

List of Figures

Figure No.	Title
1	322 Landfill Monitoring Well Location Map
2	322 Landfill Groundwater Potentiometric Elevation Contour Map – March 8, 2022
3	322 Landfill Groundwater Potentiometric Elevation Contour Map – June 14, 2022
4	322 Landfill Groundwater Potentiometric Elevation Contour Map – September 9, 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



This Annual Groundwater Monitoring and Corrective Action Report documents the groundwater monitoring program for the Tecumseh Energy Center (TEC) 322 Landfill 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 TEC 322 Landfill is, to the best of my knowledge, accurate and complete.

Signed:

Professional Geologist

Print Name: Kansas License No.: Title: Company:

Mark Nicholls Professional Geologist No. 881 Technical Expert 2 Haley & Aldrich, Inc.





1. Introduction

This 2022 Annual Groundwater Monitoring and Corrective Action Report (Annual Report) addresses the 322 Landfill at the Tecumseh Energy Center (TEC), 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 TEC 322 Landfill 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 Rule. The specific requirements for the annual report listed in § 257.90(e) 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 322 Landfill 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 322 Landfill 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 322 Landfill 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 322 Landfill with a notification establishing assessment monitoring provided on August 15, 2018 to meet the requirements of 40 CFR § 257.95. The 322 Landfill 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 322 Landfill. 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 322 Landfill remained in assessment monitoring during 2022.

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

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



An assessment of corrective measures was not required for the 322 Landfill 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 322 Landfill 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 322 Landfill 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 TEC 322 Landfill. The 322 Landfill 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 322 Landfill as required by the Rule. Groundwater sampling and analysis was conducted in accordance with 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 322 Landfill remained in the assessment monitoring program during 2022.

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 in June 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 322 Landfill in 2022.

2.2.4 Actions to Resolve Problems

No problems were encountered at the 322 Landfill 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 322 Landfill 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 322 Landfill 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 322 Landfill 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 alternate 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 322 Landfill are included in Tables II and III. The background concentrations and groundwater protection standards provided in Tables II and III 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 alternate source demonstration or certification was required in 2022. The 322 Landfill 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 monitoring of corrective measures was required to be initiated in 2022; therefore, no demonstration or certification is applicable for this unit.



TABLES

TABLE ISUMMARY OF ANALYTICAL RESULTS - 2022 ASSESSMENT MONITORINGEVERGY KANSAS CENTRAL, INC.TECUMSEH ENERGY CENTER, 322 LANDFILLTECUMSEH, KANSAS

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Location	Upgradient			Downgradient					
Location	MW-4			MW-1					
Measure Point (TOC)		936.48		904.65					
Sample Name	MW-4-030822	MW-4-061422	MW-4-090922	MW-1-030822	DUP-322LF-030822	MW-1-061422	DUP-322LF-061422	MW-1-090922	DUP-322LF-090922
Sample Date	3/8/2022	06/14/2022	9/9/2022	3/8/2022	3/8/2022	06/14/2022	06/14/2022	9/9/2022	9/9/2022
Final Lab Report Date	4/27/2022	6/28/2022	9/23/2022	4/27/2022	4/27/2022	6/28/2022	6/28/2022	9/23/2022	9/23/2022
Final Lab Report Revision Date	N/A	NA	10/14/2022	N/A	N/A	NA	NA	10/14/2022	10/14/2022
Final Radiation Lab Report Date	4/27/2022	7/19/2022	NA	4/27/2022	4/27/2022	7/19/2022	7/19/2022	NA	NA
Final Radiation Lab Report Revision Date	N/A	8/1/2022	NA	N/A	N/A	8/1/2022	8/1/2022	NA	NA
Lab Data Reviewed and Accepted	4/27/2022	7/29/2022	11/4/2022	4/27/2022	4/27/2022	7/29/2022	7/29/2022	11/4/2022	11/4/2022
Depth to Water (ft btoc)	4.00	4.32	6.32	4.28	-	4.25	-	6.08	-
Temperature (Deg C)	8.90	18.06	18.87	10.73	-	17.21	-	16.21	-
Conductivity (µS/cm)	1890	1640	1270	1470	-	1300	-	1390	-
Turbidity (NTU)	9.7	0.0	0.0	4.0	-	0.0	-	0.0	-
pH, Field (su)	7.01	6.80	7.57	7.09	-	6.80	-	7.81	-
Boron, Total (mg/L)	<0.10	-	< 0.10	0.11	0.11	-	-	< 0.10	< 0.10
Calcium, Total (mg/L)	190	-	171	171	173	-	-	159	154
Chloride (mg/L)	237	-	234	40.4	39.1	-	-	46.0	47.5
Fluoride (mg/L)	<0.20	< 0.20	< 0.20	<0.20	<0.20	< 0.20	< 0.20	< 0.20	< 0.20
Sulfate (mg/L)	268	-	183	356	380	-	-	373	378
pH (su)	7.1	-	6.7	7.1	7.1	-	-	7.2	7.4
TDS (mg/L)	1380	-	1380	900	909	-	-	991	965
Antimony, Total (mg/L)	-	< 0.0010	-	-	-	< 0.0010	< 0.0010	-	-
Arsenic (mg/L)	<0.0010	< 0.0010	-	<0.0010	<0.0010	< 0.0010	< 0.0010	-	-
Barium, Total (mg/L)	0.093	0.086	0.099	0.058	0.057	0.068	0.063	0.062	0.062
Beryllium, Total (mg/L)	-	< 0.0010	-	-	-	< 0.0010	< 0.0010	-	-
Cadmium, Total (mg/L)	-	< 0.00050	-	-	-	< 0.00050	< 0.00050	-	-
Chromium, Total (mg/L)	-	< 0.0050	-	-	-	< 0.0050	< 0.0050	-	-
Cobalt, Total (mg/L)	<0.0010	< 0.0010	< 0.0010	<0.0010	<0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Lead, Total (mg/L)	-	< 0.010	-	-	-	< 0.010	< 0.010	-	-
Lithium, Total (mg/L)	-	< 0.010	< 0.010	-	-	< 0.010	< 0.010	0.011	< 0.010
Molybdenum, Total (mg/L)	-	< 0.0010	-	-	-	< 0.0010	< 0.0010	-	-
Selenium, Total (mg/L)	-	< 0.0010	-	-	-	< 0.0010	< 0.0010	-	-
Thallium, Total (mg/L)	-	< 0.0010	-	-	-	< 0.0010	< 0.0010	-	-
Mercury, Total (mg/L)	-	< 0.00020	-	-	-	< 0.00020	< 0.00020	-	-
Radium-226 & 228 Combined (pCi/L)	1.17 +/- 0.887 (1.67)	1.21 ± 0.890 (1.52)	-	0.589 +/- 0.836 (1.67)	0.639 +/- 0.776 (1.64)	1.08 ± 0.815 (1.20)	0.375 ± 0.813 (1.66)	-	-

TABLE ISUMMARY OF ANALYTICAL RESULTS - 2022 ASSESSMENT MONITORINGEVERGY KANSAS CENTRAL, INC.TECUMSEH ENERGY CENTER, 322 LANDFILLTECUMSEH, KANSAS

Location	Downgradient						
Location -	MW-5			MW-6			
Measure Point (TOC)		916.18			911.28		
Sample Name	MW-5-030822	MW-5-061422	MW-5-090922	MW-6-030822	MW-6-061422	MW-6-090922	
Sample Date	3/8/2022	06/14/2022	9/9/2022	3/8/2022	06/14/2022	9/9/2022	
Final Lab Report Date	4/27/2022	6/28/2022	9/23/2022	4/27/2022	6/28/2022	9/23/2022	
Final Lab Report Revision Date	N/A	NA	10/14/2022	N/A	NA	10/14/2022	
Final Radiation Lab Report Date	4/27/2022	7/19/2022	NA	4/27/2022	7/19/2022	NA	
Final Radiation Lab Report Revision Date	N/A	8/1/2022	NA	N/A	8/1/2022	NA	
Lab Data Reviewed and Accepted	4/27/2022	7/29/2022	11/4/2022	4/27/2022	7/29/2022	11/4/2022	
Depth to Water (ft btoc)	6.63	7.14	8.26	8.84	8.69	9.63	
Temperature (Deg C)	10.85	15.31	19.63	10.93	19.01	16.78	
Conductivity (µS/cm)	2540	1990	1800	2500	2220	2400	
Turbidity (NTU)	4.8	0.0	0.0	17.6	0.0	2.7	
pH, Field (su)	6.74	6.66	7.43	6.97	6.81	7.59	
Boron, Total (mg/L)	0.91	-	0.35	0.56	-	0.62	
Calcium, Total (mg/L)	344	-	210	337	-	337	
Chloride (mg/L)	28.3	-	58.2	46.1	-	50.8	
Fluoride (mg/L)	<0.20	0.46	< 0.20	<0.20	0.40	< 0.20	
Sulfate (mg/L)	967	-	481	795	-	1060	
pH (su)	6.9	-	7.7	7.1	-	7.2	
TDS (mg/L)	1610	-	1300	1670	-	1950	
Antimony, Total (mg/L)	-	< 0.0010	-	-	< 0.0010	-	
Arsenic (mg/L)	<0.0010	< 0.0010	-	<0.0010	< 0.0010	-	
Barium, Total (mg/L)	0.018	0.018	0.027	0.019	0.017	0.019	
Beryllium, Total (mg/L)	-	< 0.0010	-	-	< 0.0010	-	
Cadmium, Total (mg/L)	-	< 0.00050	-	-	< 0.00050	-	
Chromium, Total (mg/L)	-	< 0.0050	-	-	< 0.0050	-	
Cobalt, Total (mg/L)	0.0011	0.0012	< 0.0010	0.0023	0.0022	0.0022	
Lead, Total (mg/L)	-	< 0.010	-	-	< 0.010	-	
Lithium, Total (mg/L)	-	0.014	0.021	-	0.015	0.017	
Molybdenum, Total (mg/L)	-	< 0.0010	-	-	< 0.0010	-	
Selenium, Total (mg/L)	-	< 0.0010	-	-	< 0.0010	-	
Thallium, Total (mg/L)	-	< 0.0010	-	-	< 0.0010	-	
Mercury, Total (mg/L)	-	< 0.00020	-	-	< 0.00020	-	
Radium-226 & 228 Combined (pCi/L)	0.475 +/- 1.01 (2.08)	0.772 ± 0.842 (1.56)	-	0.638 +/- 0.851 (1.79)	0.289 ± 0.912 (1.88)	-	

Notes:

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

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

Data presented in this table were verified against the laboratory and validation reports.

μS/cm = micro Siemens per centimeter

Deg C = degrees Celsius ft btoc = feet below top of casing mg/L = milligrams per liter NA = Not Applicable

NTU = Nephelometric Turbidity Unit

pCi/L = picoCuries per liter su = standard unit TDS = total dissolved solids TOC = top of casing

PAGE 2 OF 2

TABLE IIASSESSMENT GROUNDWATER MONITORING - DETECTED APPENDIX IV GWPSSEPTEMBER 2021 SAMPLING EVENTSTECUMSEH ENERGY CENTER322 LANDFILLTECUMSEH, KANSAS

Well #	Background Value ^{1,2}	GWPS
C	CR Appendix-IV Arsenic, Total (mg/	L)
MW-4 (upgradient)	0.001	NA
MW-1		0.010
MW-5		0.010
MW-6		0.010
C	CR Appendix-IV Barium, Total (mg/	L)
MW-4 (upgradient)	0.134	NA
MW-1		2
MW-5		2
MW-6		2
C	CR Appendix-IV Cobalt, Total (mg/	L)
MW-4 (upgradient)	0.001	NA
MW-1		0.006
MW-5		0.006
MW-6		0.006
CCR	Appendix-IV: Radium-226 & 228 (p	Ci/L)
MW-4 (upgradient)	2.83 ²	NA
MW-1		5
MW-5		5
MW-6		5

Notes:

¹ Based on background data collected from 08/17/2016 through 06/07/2021, unless otherwise noted.

² Based on background data collected from 08/17/2016 through 03/8/2020.

CCR = coal combustion residuals

GWPS = *groundwater protection standard*

mg/L = milligrams per Liter

NA = not applicable

pCi/L = picoCuries per Liter

TABLE IIIASSESSMENT GROUNDWATER MONITORING - DETECTED APPENDIX IV GWPSMARCH 2022 SAMPLING EVENTSTECUMSEH ENERGY CENTER322 LANDFILLTECUMSEH, KANSAS

Well #	Background Value ^{1,2}	GWPS
C	CR Appendix-IV Arsenic, Total (mg/	L)
MW-4 (upgradient)	0.001	NA
MW-1		0.010
MW-5		0.010
MW-6		0.010
C	CR Appendix-IV Barium, Total (mg/	L)
MW-4 (upgradient)	0.134	NA
MW-1		2
MW-5		2
MW-6		2
C	CR Appendix-IV Cobalt, Total (mg/l	L)
MW-4 (upgradient)	0.001	NA
MW-1		0.006
MW-5		0.006
MW-6		0.006
CCR	Appendix-IV: Radium-226 & 228 (p	Ci/L)
MW-4 (upgradient)	2.65 ²	NA
MW-1		5
MW-5		5
MW-6		5

Notes:

¹ Based on background data collected from 08/17/2016 through 06/07/2021, unless otherwise noted.

² Based on background data collected from 08/17/2016 through 03/08/2022.

CCR = Coal Combustion Residuals

GWPS = Groundwater Protection Standard

mg/L = milligrams per Liter

NA = Not Applicable

pCi/L = picoCuries per Liter



FIGURES



LEGEND



MONITORING WELL

PIEZOMETER OBSERVATION ONLY

322 LANDFILL

NOTES

- 1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
- 4. AERIAL IMAGERY SOURCE: ESRI, NOVEMBER 7, 2019



600

300 SCALE IN FEET

EVERGY KANSAS CENTRAL, INC. TECUMSEH ENERGY CENTER TECUMSEH, KANSAS

322 LANDFILL MONITORING WELL LOCATION MAP

>evergy JANUARY 2023

FIGURE 1



LEGEN	ID
MW-1 900.47	WELL NAME AND GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL (AMSL), MARCH 2022
•	MONITORING WELL
	PIEZOMETER OBSERVATION ONLY
	GROUNDWATER POTENTIOMETRIC OBSERVATION ELEVATION CONTOUR, 2-FT INTERVAL (AMSL), DASHED WHERE INFERRED
-	GROUNDWATER FLOW DIRECTION AND APPROXIMATE GROUNDWATER FLOW RATE (FEET/YEAR)
	322 LANDFILL

NOTES

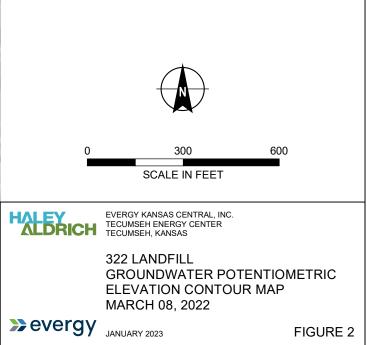
1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.

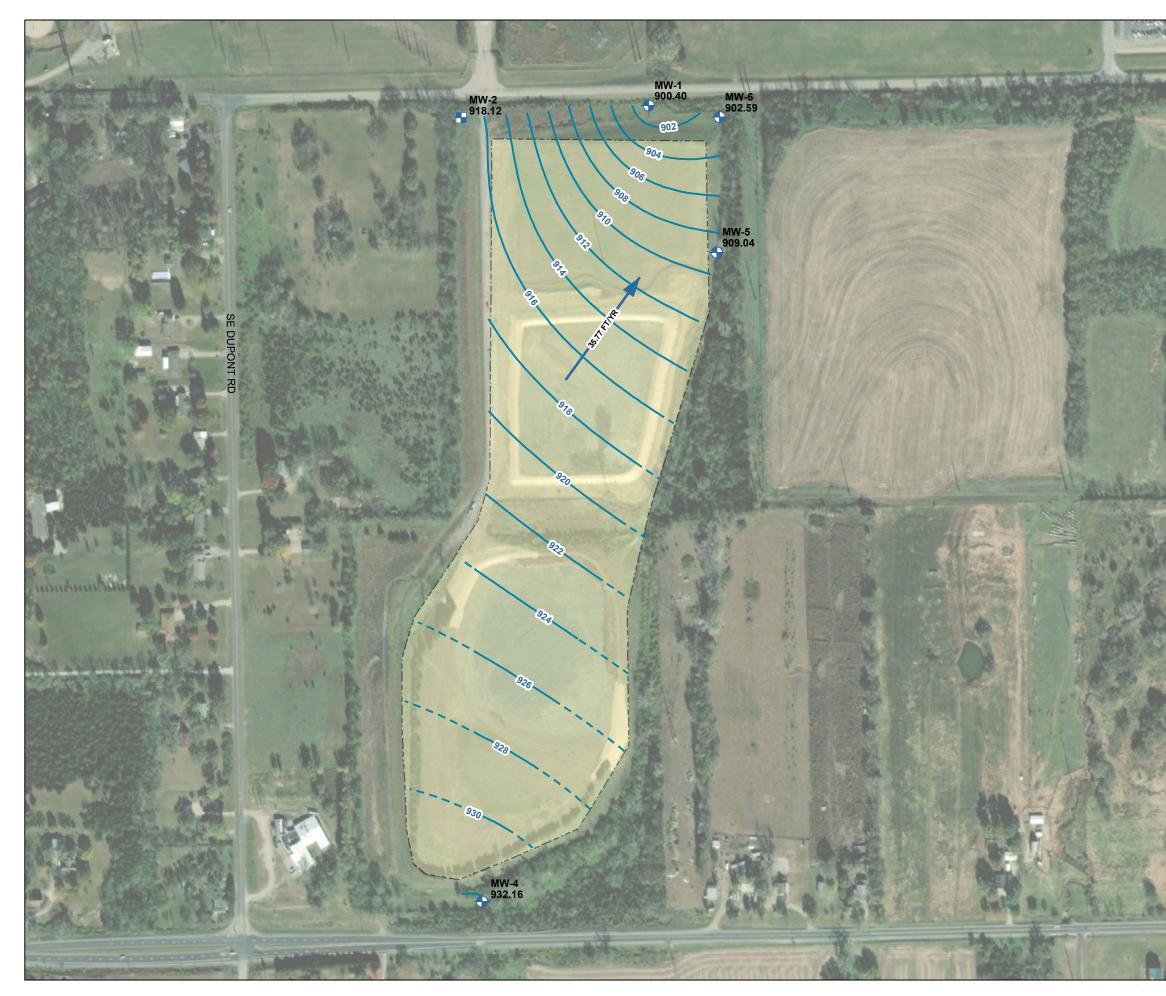
2. GROUNDWATER POTENTIOMETRIC ELEVATIONS WERE MEASURED 08 MARCH 2022.

3. AMSL = ABOVE MEAN SEA LEVEL

4. THE GROUNDWATER FLOW RATE WAS APPROXIMATED USING THE HYDRAULIC GRADIENT CALCULATED FROM GROUNDWATER POTENTIOMETRIC ELEVATIONS MEASURED 08 MARCH 2022 AND THE CONDUCTIVITY VALUES AND EFFECTIVE POROSITY VALUES OBTAINED FROM SLUG TESTS COMPLETED APRIL 2016.

5. AERIAL IMAGERY SOURCE: ESRI, 07 NOVEMBER 2019





LEGEN	ID
MW-1 900.47	WELL NAME AND GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL (AMSL), JUNE 2022
•	MONITORING WELL
	PIEZOMETER OBSERVATION ONLY
	GROUNDWATER POTENTIOMETRIC OBSERVATION ELEVATION CONTOUR, 2-FT INTERVAL (AMSL), DASHED WHERE INFERRED
-	GROUNDWATER FLOW DIRECTION AND APPROXIMATE GROUNDWATER FLOW RATE (FEET/YEAR)
	322 LANDFILL

NOTES

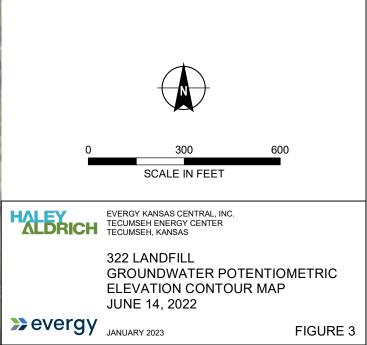
1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.

2. GROUNDWATER POTENTIOMETRIC ELEVATIONS WERE MEASURED 14 JUNE 2022.

3. AMSL = ABOVE MEAN SEA LEVEL

4. THE GROUNDWATER FLOW RATE WAS APPROXIMATED USING THE HYDRAULIC GRADIENT CALCULATED FROM GROUNDWATER POTENTIOMETRIC ELEVATIONS MEASURED 14 JUNE 2022 AND THE CONDUCTIVITY VALUES AND EFFECTIVE POROSITY VALUES OBTAINED FROM SLUG TESTS COMPLETED APRIL 2016.

5. AERIAL IMAGERY SOURCE: ESRI, 07 NOVEMBER 2019





LEGEN	LEGEND				
MW-1 900.47	WELL NAME AND GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL (AMSL), SEPTEMBER 2022				
÷	MONITORING WELL				
-	PIEZOMETER OBSERVATION ONLY				
	GROUNDWATER POTENTIOMETRIC OBSERVATION ELEVATION CONTOUR, 2-FT INTERVAL (AMSL), DASHED WHERE INFERRED				
-	GROUNDWATER FLOW DIRECTION AND APPROXIMATE GROUNDWATER FLOW RATE (FEET/YEAR)				
	322 LANDFILL				

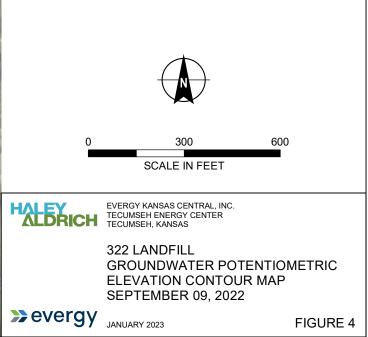
NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.

2. GROUNDWATER POTENTIOMETRIC ELEVATIONS WERE MEASURED 09 SEPTEMBER 2022.

3. THE GROUNDWATER FLOW RATE WAS APPROXIMATED USING THE HYDRAULIC GRADIENT CALCULATED FROM GROUNDWATER POTENTIOMETRIC ELEVATIONS MEASURED 09 SEPTEMBER 2022 AND THE CONDUCTIVITY VALUES AND EFFECTIVE POROSITY VALUES OBTAINED FROM SLUG TESTS COMPLETED APRIL 2016.

4. AERIAL IMAGERY SOURCE: ESRI, 07 NOVEMBER 2019



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. 129778-039

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 Tecumseh Energy Center 322 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 Tecumseh Energy Center (TEC) 322 Landfill. This semi-annual assessment monitoring groundwater sampling event was completed on **September 13, 2021**, with laboratory results received and validated on **November 14, 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 most recent groundwater sampling event from each compliance well was compared to the corresponding background UTL to determine if a SSI existed.

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

STATISTICAL EVALUATION

An interwell 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. 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 the 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-4) 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 all constituents except Radium-226 and 228 combined, which was updated through **March 2020.**

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. 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 TEC 322 Landfill.**

Attachments:

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



TABLE

TABLE ISUMMARY OF SEMI-ANNUAL ASSESSMENT GROUNDWATER MONITORING STATISTICAL EVALUATIONSEPTEMBER 2021 SAMPLING EVENTTECUMSEH ENERGY CENTER 322 LANDFILLTECUMSEH, KANSAS

									MCL C	omparison						Interwell Analysis		Groundwater Protection Standard	
Location ID	Frequency of Detection	Percent Non-Detects	Maximum Detect	Variance	Standard Deviation	Coefficient of Variance	CCR MCL/RSL §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	GWPS (Higher of MCL/RSL or Upper Tolerance Limit) mg/L	SSL
									CCR Ap	pendix-IV: Arsenic,	Total (mg/L)								
MW-4 (upgradient)	0/14	100%		0	0	0	0.01	mg/L	0	0	NA	NA	NA	NA	< 0.0010	0.001		0.010	
MW-1	3/14	79%	0.0023	1.917E-07	0.0004378	0.3543	0.01	mg/L	0	0	Yes	No	NA	Non-parametric	< 0.0020		Yes ³		No
MW-5	0/14	100%		0	0	0	0.01	mg/L	0	0	NA	NA	NA	NA	< 0.0010		No		No
MW-6	0/14	100%		0	0	0	0.01	mg/L	0	0	NA	NA	NA	NA	< 0.0010		No		No
									CCR Ap	pendix-IV: Barium,	Total (mg/L)								
MW-4 (upgradient)	19/19	0%	0.14	0.0001561	0.01249	0.1127	2	mg/L	0	0	Yes	No	Decreasing	Normal	0.10	0.134		2	
MW-1	19/19	0%	0.2	0.002829	0.05319	0.4413	2	mg/L	0	0	No	No	Decreasing	Non-parametric	0.062		No		No
MW-5	19/19	0%	0.04	0.00004009	0.006332	0.261	2	mg/L	0	0	No	No	Decreasing	Normal	0.026		No		No
MW-6	19/19	0%	0.041	0.00005025	0.007089	0.3245	2	mg/L	0	0	Yes	No	Decreasing	Normal	0.017		No		No
									CCR Ap	pendix-IV: Cobalt,	Total (mg/L)								
MW-4 (upgradient)	0/19	100%		0	0	0	0.006	mg/L	0	0	NA	NA	NA	NA	< 0.0010	0.001		0.006	
MW-1	14/19	26%	0.0086	0.0000365	0.001911	0.8832	0.006	mg/L	1	0	Yes	No	Stable	Non-parametric	0.0032		Yes		No
MW-5	19/19	0%	0.0021	9.228E-08	0.0003038	0.1718	0.006	mg/L	0	0	No	No	Stable	Normal	0.0019		Yes		No
MW-6	19/19	0%	0.0033	2.895E-07	0.0005381	0.2262	0.006	mg/L	0	0	No	No	Stable	Normal	0.0029		Yes		No
									CCR Appe	ndix-IV: Radium-22	6 & 228 (pCi/	Ľ)							
MW-4 (upgradient)	17/17	0%	2.64	0.3389	0.5822	0.3531	5	pCi/L	0	0	No	No	Stable	Normal	1.70	2.83 ²		5	
MW-1	14/17	18%	1.78	0.227	0.4764	0.6536	5	pCi/L	0	0	No	No	Stable	Normal	0.624		No		No
MW-5	16/17	6%	1.48	0.0909	0.3015	0.3088	5	pCi/L	0	0	No	No	Decreasing	Normal	1.32		No		No
MW-6	16/17	6%	2.6	0.4268	0.6533	0.7704	5	pCi/L	0	0	Yes	No	Stable	Normal	0.206		No		No

Notes and Abbreviations:

¹ Based on background data collected from 08/17/2016 through 06/07/2021, unless otherwise noted.

² Based on background data collected from 08/17/2016 through 03/8/2020.

³ Due to analytical dilution factors, laboratory reporting limits were above the upper tolerance limit for arsenic.

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

CCR = coal combustion residuals

GWPS = Groundwater Protection Standard

MCL = maximum contaminant level

mg/L = milligrams per Liter

NA = not analyzed

pCi/L = picoCuries per Liter

SSI = statistically significant increase

SSL = statistically significant level

UTL = upper tolerance limits

ATTACHMENT 1-2 March 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. 129778-048

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 Tecumseh Energy Center 322 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 Tecumseh Energy Center (TEC) 322 Landfill. This semi-annual assessment monitoring groundwater sampling event was completed on **March 8, 2022**, with laboratory results 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 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 (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 SSI existed.

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

STATISTICAL EVALUATION

An interwell 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. 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 the 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-4 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 all constituents except Radium-226 and 228 combined, which was updated through **March 2022.**



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 an SSL. 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 TEC 322 Landfill.**

Attachments:

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



TABLE

TABLE ISUMMARY OF SEMI-ANNUAL ASSESSMENT GROUNDWATER MONITORING STATISTICAL EVALUATIONMARCH 2022 SAMPLING EVENTTECUMSEH ENERGY CENTER 322 LANDFILLTECUMSEH, KANSAS

TECUMSEH, KANSAS									MCL C	omparison					Interwell Analysis		Groundwater Protection Standard	
Location ID	Frequency of Detection	Percent Non-Detects	Maximum Detect	Variance	Standard Deviation	Coefficient of Variance	CCR MCL/RSL §257.95(h)(2)*	Report Result Unit	Number of Detection Exceedances	Number of Non-Detection Exceedances	Outlier Presence	Outlier Removed	Distribution Well	March 2022 Concentration (mg/L)	Background Limits ¹ (UTL) mg/L	SSI	GWPS (Higher of MCL/RSL or Upper Tolerance Limit) mg/L	SSL
			•			•		· (CCR Appendix-IV	: Arsenic, Total (mg	g/L)	•					• •	
MW-4 (upgradient)	0/15	100%		0	0	0	0.01	mg/L	0	0	NA	NA	NA	< 0.0010	0.001		0.010	
MW-1	3/15	80%	0.0023	1.817E-07	0.0004263	0.3494	0.01	mg/L	0	0	Yes	No	Non-parametric	< 0.0010		No		No
MW-5	0/15	100%		0	0	0	0.01	mg/L	0	0	NA	NA	NA	< 0.0010		No		No
MW-6	0/15	100%		0	0	0	0.01	mg/L	0	0	NA	NA	NA	< 0.0010		No		No
					•				CCR Appendix-IV	: Barium, Total (mg	;/L)							
MW-4 (upgradient)	20/20	0%	0.14	0.0001639	0.0128	0.1164	2	mg/L	0	0	Yes	No	Normal	0.093	0.134		2	
MW-1	20/20	0%	0.2	0.002876	0.05362	0.4568	2	mg/L	0	0	No	No	Non-parametric	0.058		No		No
MW-5	20/20	0%	0.04	0.00003994	0.00632	0.2639	2	mg/L	0	0	No	No	Normal	0.018		No		No
MW-6	20/20	0%	0.041	0.00004801	0.006929	0.3193	2	mg/L	0	0	Yes	No	Normal	0.019		No		No
									CCR Appendix-I	/: Cobalt, Total (mg	/L)							
MW-4 (upgradient)	0/20	100%		0	0	0	0.006	mg/L	0	0	NA	NA	NA	< 0.0010	0.001		0.006	
MW-1	14/20	30%	0.0086	0.000003526	0.001878	0.892	0.006	mg/L	1	0	Yes	No	Non-parametric	< 0.0010		No		No
MW-5	20/20	0%	0.0021	1.098E-07	0.0003313	0.191	0.006	mg/L	0	0	No	No	Normal	0.0011		Yes		No
MW-6	20/20	0%	0.0033	2.746E-07	0.000524	0.2206	0.006	mg/L	0	0	No	No	Normal	0.0023		Yes		No
								CCI	R Appendix-IV: R	adium-226 & 228 (pCi/L)			-				
MW-4 (upgradient)	17/18	6%	2.64	0.3317	0.576	0.3551	5	pCi/L	0	0	No	No	Normal	1.17	2.65 ²		5	
MW-1	14/18	22%	1.78	0.2147	0.4634	0.6425	5	pCi/L	0	0	No	No	Normal	0.589		No		No
MW-5	16/18	11%	1.48	0.09952	0.3155	0.3326	5	pCi/L	0	0	No	No	Normal	0.475		No		No
MW-6	16/18	11%	2.6	0.4041	0.6357	0.7601	5	pCi/L	0	0	Yes	No	Normal	0.638		No		No

Notes and Abbreviations:

¹ Based on background data collected from 08/17/2016 through 06/07/2021, unless otherwise noted.

² Based on background data collected from 08/17/2016 through 03/08/2022.

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

CCR = coal combustion residuals

GWPS = Groundwater Protection Standard

MCL = maximum contaminant level

mg/L = milligrams per Liter

NA = not analyzed

pCi/L = picoCuries per Liter

SSI = statistically significant increase

SSL = statistically significant level

UTL = upper tolerance limits



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



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

April 27, 2022

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

RE: Project: TEC 322 LANDFILL CCR Pace Project No.: 60394593

Dear Melissa Michels:

Enclosed are the analytical results for sample(s) received by the laboratory on March 08, 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,

Alice 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



REPORT OF LABORATORY ANALYSIS

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



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

CERTIFICATIONS

Project: TEC 322 LANDFILL CCR

Pace Project No.: 60394593

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

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 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

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: TEC 322 LANDFILL CCR

Pace Project No.: 60394593

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60394593001	MW-1-030822	Water	03/08/22 10:30	03/08/22 16:00
60394593002	MW-4-030822	Water	03/08/22 12:20	03/08/22 16:00
60394593003	MW-5-030822	Water	03/08/22 13:45	03/08/22 16:00
60394593004	MW-6-030822	Water	03/08/22 11:25	03/08/22 16:00
60394593005	DUP-322LF-030822	Water	03/08/22 10:30	03/08/22 16:00



SAMPLE ANALYTE COUNT

Project: TEC 322 LANDFILL CCR

Pace Project No.: 60394593

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60394593001	MW-1-030822	EPA 200.7	JLH, MRV	3	PASI-K
		EPA 200.8	JGP	2	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	TNB	1	PASI-K
		SM 4500-H+B	SK	1	PASI-K
		EPA 300.0	CRN2	3	PASI-K
0394593002	MW-4-030822	EPA 200.7	JLH, MRV	3	PASI-K
		EPA 200.8	JGP	2	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	TNB	1	PASI-K
		SM 4500-H+B	SK	1	PASI-K
		EPA 300.0	CRN2	3	PASI-K
0394593003	MW-5-030822	EPA 200.7	JLH, MRV	3	PASI-K
		EPA 200.8	JGP	2	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	TNB	1	PASI-K
		SM 4500-H+B	SK	1	PASI-K
		EPA 300.0	CRN2	3	PASI-K
0394593004	MW-6-030822	EPA 200.7	JLH, MRV	3	PASI-K
		EPA 200.8	JGP	2	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	TNB	1	PASI-K
		SM 4500-H+B	SK	1	PASI-K
		EPA 300.0	CRN2	3	PASI-K
0394593005	DUP-322LF-030822	EPA 200.7	JLH, MRV	3	PASI-K
		EPA 200.8	JGP	2	PASI-K
		EPA 903.1	RPS	1	PASI-PA
		EPA 904.0	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA



SAMPLE ANALYTE COUNT

Project: TEC 322 LANDFILL CCR Pace Project No.: 60394593

Analytes Lab ID Sample ID Method Analysts Reported Laboratory SM 2540C TNB 1 PASI-K SM 4500-H+B SK 1 PASI-K EPA 300.0 3 PASI-K CRN2

PASI-K = Pace Analytical Services - Kansas City

PASI-PA = Pace Analytical Services - Greensburg



Project: TEC 322 LANDFILL CCR

Pace Project No.: 60394593

Method: EPA 200.7

Description:200.7 Metals, TotalClient:Evergy Kansas Central, Inc.Date:April 27, 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.

QC Batch: 778997

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60394593002

- M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
 - MS (Lab ID: 3107485)
 - Calcium
 - MSD (Lab ID: 3107486)
 - Calcium

Additional Comments:



Project: TEC 322 LANDFILL CCR

Pace Project No.: 60394593

Method: EPA 200.8

Description:200.8 MET ICPMSClient:Evergy Kansas Central, Inc.Date:April 27, 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.

Additional Comments:



Project: TEC 322 LANDFILL CCR

Pace Project No.: 60394593

Method: EPA 903.1

Description:903.1 Radium 226Client:Evergy Kansas Central, Inc.Date:April 27, 2022

General Information:

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

Hold Time:

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

Method Blank:

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

Laboratory Control Spike:

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

Matrix Spikes:

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

Additional Comments:



Project: TEC 322 LANDFILL CCR

Pace Project No.: 60394593

Method: EPA 904.0

Description:904.0 Radium 228Client:Evergy Kansas Central, Inc.Date:April 27, 2022

General Information:

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

Hold Time:

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

Method Blank:

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

Laboratory Control Spike:

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

Matrix Spikes:

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

Additional Comments:



Project: TEC 322 LANDFILL CCR

Pace Project No.: 60394593

Method: Total Radium Calculation

Description:Total Radium 228+226Client:Evergy Kansas Central, Inc.Date:April 27, 2022

General Information:

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

Hold Time:

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

Method Blank:

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

Laboratory Control Spike:

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

Matrix Spikes:

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

Additional Comments:



Project: TEC 322 LANDFILL CCR

Pace Project No.: 60394593

Method: SM 2540C

Description:2540C Total Dissolved SolidsClient:Evergy Kansas Central, Inc.Date:April 27, 2022

General Information:

5 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: TEC 322 LANDFILL CCR

Pace Project No.: 60394593

Method: SM 4500-H+B

Description:4500H+ pH, ElectrometricClient:Evergy Kansas Central, Inc.Date:April 27, 2022

General Information:

5 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-322LF-030822 (Lab ID: 60394593005)
- MW-1-030822 (Lab ID: 60394593001)
- MW-4-030822 (Lab ID: 60394593002)
- MW-5-030822 (Lab ID: 60394593003)
- MW-6-030822 (Lab ID: 60394593004)

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: TEC 322 LANDFILL CCR

Pace Project No.: 60394593

Method: EPA 300.0

Description:300.0 IC Anions 28 DaysClient:Evergy Kansas Central, Inc.Date:April 27, 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.

QC Batch: 775323

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60394120003,60394722001

- M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
 - MS (Lab ID: 3094701)
 - Fluoride
 - MSD (Lab ID: 3094702)
 - Fluoride

Additional Comments:

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



Project: TEC 322 LANDFILL CCR

Pace Project No.: 60394593

Sample: M	N-1-030822	Lab ID: 603	94593001	Collected: 03/08/2	22 10:30	Received: 03	8/08/22 16:00 N	latrix: Water	
Comments:	 Cooler temperature 1 preservation. 	4.2° C upon receip	t. Ice was pr	resent, but melted. Sa	amples	did not meet the	requirement for th	nermal	
	Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals	s, Total	Analytical Met	hod: EPA 20	0.7 Preparation Met	hod: EF	PA 200.7			
		Pace Analytica	al Services -	Kansas City					
Barium, Tota	I Recoverable	0.058	mg/L	0.0050	1	03/11/22 11:15	03/15/22 16:19	7440-39-3	
Boron, Total	Recoverable	0.11	mg/L	0.10	1	03/11/22 11:15	03/15/22 16:19	7440-42-8	
Calcium, Tot	al Recoverable	171	mg/L	0.60	3	03/31/22 16:07	04/01/22 15:58	7440-70-2	
200.8 MET I	CPMS	Analytical Met	hod: EPA 20	0.8 Preparation Met	hod: EF	PA 200.8			
		Pace Analytica	al Services -	Kansas City					
Arsenic, Tota	I Recoverable	<0.0010	mg/L	0.0010	1	03/14/22 09:02	03/15/22 12:40	7440-38-2	
Cobalt, Total	Recoverable	<0.0010	mg/L	0.0010	1	03/14/22 09:02	03/15/22 12:40	7440-48-4	
2540C Total	Dissolved Solids	Analytical Met	hod: SM 254	40C					
		Pace Analytica	al Services -	Kansas City					
Total Dissolv	ed Solids	900	mg/L	10.0	1		03/15/22 13:26		
4500H+ pH,	Electrometric	Analytical Met	hod: SM 450	00-H+B					
		Pace Analytica	al Services -	Kansas City					
pH at 25 Deo	grees C	7.1	Std. Units	0.10	1		03/11/22 08:59		H6
300.0 IC Ani	ons 28 Days	Analytical Met	hod: EPA 30	0.0					
	-	Pace Analytica	al Services -	Kansas City					
Chloride		40.4	mg/L	5.0	5		03/15/22 09:33	16887-00-6	
Fluoride		<0.20	mg/L	0.20	1		03/14/22 15:10	16984-48-8	
Sulfate		356	mg/L	100	100		03/14/22 16:03	14808-79-8	



Project: TEC 322 LANDFILL CCR

Pace Project No.: 60394593

Sample: M	W-4-030822	Lab ID: 603	94593002	Collected: 03/08/2	22 12:20	0 Received: 03	8/08/22 16:00 N	latrix: Water	
Comments:	 Cooler temperature 1 preservation. 	4.2° C upon receip	t. Ice was pr	esent, but melted. S	amples	did not meet the	requirement for th	nermal	
	Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals	s, Total	Analytical Met	hod: EPA 20	0.7 Preparation Met	thod: El	PA 200.7			
		Pace Analytica	al Services -	Kansas City					
Barium, Tota	l Recoverable	0.093	mg/L	0.0050	1	03/11/22 11:15	03/15/22 16:25	7440-39-3	
Boron, Total	Recoverable	<0.10	mg/L	0.10	1	03/11/22 11:15	03/15/22 16:25	7440-42-8	
Calcium, Tot	al Recoverable	190	mg/L	0.60	3	03/31/22 16:07	04/01/22 16:05	7440-70-2	M1
200.8 MET I	CPMS	Analytical Met	hod: EPA 20	0.8 Preparation Met	thod: El	PA 200.8			
		Pace Analytica	al Services -	Kansas City					
Arsenic, Tota	al Recoverable	<0.0010	mg/L	0.0010	1	03/14/22 09:02	03/15/22 12:46	7440-38-2	
Cobalt, Total	Recoverable	<0.0010	mg/L	0.0010	1	03/14/22 09:02	03/15/22 12:46	7440-48-4	
2540C Total	Dissolved Solids	Analytical Met	hod: SM 254	ł0C					
		Pace Analytica	al Services -	Kansas City					
Total Dissolv	red Solids	1380	mg/L	13.3	1		03/15/22 13:26		
4500H+ pH,	Electrometric	Analytical Met	hod: SM 450)0-H+B					
		Pace Analytica	al Services -	Kansas City					
pH at 25 De	grees C	7.1	Std. Units	0.10	1		03/11/22 09:06		H6
300.0 IC Ani	ions 28 Days	Analytical Met	hod: EPA 30	0.0					
	-	Pace Analytica	al Services -	Kansas City					
Chloride		237	mg/L	100	100		03/14/22 16:16	16887-00-6	
Fluoride		<0.20	mg/L	0.20	1		03/14/22 16:58	16984-48-8	
Sulfate		268	mg/L	100	100		03/14/22 16:16	14808-79-8	



Project: TEC 322 LANDFILL CCR

Pace Project No.: 60394593

Sample: M	N-5-030822	Lab ID: 603	94593003	Collected: 03/08/2	22 13:45	5 Received: 03	8/08/22 16:00 N	latrix: Water	
Comments:	 Cooler temperature 1 preservation. 	4.2° C upon receip	t. Ice was pr	esent, but melted. S	amples	did not meet the	requirement for th	nermal	
	Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals	s, Total	Analytical Met	hod: EPA 20	0.7 Preparation Me	thod: EF	PA 200.7			
		Pace Analytica	al Services -	Kansas City					
Barium, Tota	I Recoverable	0.018	mg/L	0.0050	1	03/11/22 11:15	03/15/22 16:27	7440-39-3	
Boron, Total	Recoverable	0.91	mg/L	0.10	1	03/11/22 11:15	03/15/22 16:27	7440-42-8	
Calcium, Tota	al Recoverable	344	mg/L	1.0	5	03/31/22 16:07	04/01/22 16:07	7440-70-2	
200.8 MET I	CPMS	Analytical Met	hod: EPA 20	0.8 Preparation Me	thod: EF	PA 200.8			
		Pace Analytica	al Services -	Kansas City					
Arsenic, Tota	al Recoverable	<0.0010	mg/L	0.0010	1	03/14/22 09:02	03/15/22 12:49	7440-38-2	
Cobalt, Total	Recoverable	0.0011	mg/L	0.0010	1	03/14/22 09:02	03/15/22 12:49	7440-48-4	
2540C Total	Dissolved Solids	Analytical Met	hod: SM 254	40C					
		Pace Analytica	al Services -	Kansas City					
Total Dissolv	ed Solids	1610	mg/L	20.0	1		03/15/22 13:26		
4500H+ pH,	Electrometric	Analytical Met	hod: SM 450	00-H+B					
		Pace Analytica	al Services -	Kansas City					
pH at 25 Deg	grees C	6.9	Std. Units	0.10	1		03/11/22 09:09		H6
300.0 IC Ani	ons 28 Days	Analytical Met	hod: EPA 30	0.0					
	-	Pace Analytica	al Services -	Kansas City					
Chloride		28.3	mg/L	5.0	5		03/15/22 09:47	16887-00-6	
Fluoride		<0.20	mg/L	0.20	1		03/14/22 17:11	16984-48-8	
Sulfate		967	mg/L	100	100		03/14/22 17:25	14808-79-8	



Project: TEC 322 LANDFILL CCR

Pace Project No.: 60394593

Sample: MV	N-6-030822	Lab ID: 603	94593004	Collected: 03/08/2	22 11:25	5 Received: 03	8/08/22 16:00 N	latrix: Water	
Comments:	 Cooler temperature 1 preservation. 	4.2° C upon receipt	. Ice was pr	esent, but melted. Sa	amples	did not meet the	requirement for th	nermal	
	Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals	s, Total	Analytical Met	hod: EPA 20	0.7 Preparation Met	thod: EF	PA 200.7			
		Pace Analytica	al Services -	Kansas City					
Barium, Tota	I Recoverable	0.019	mg/L	0.0050	1	03/11/22 11:15	03/15/22 16:30	7440-39-3	
Boron, Total	Recoverable	0.56	mg/L	0.10	1	03/11/22 11:15	03/15/22 16:30	7440-42-8	
Calcium, Tota	al Recoverable	337	mg/L	1.0	5	03/31/22 16:07	04/01/22 16:09	7440-70-2	
200.8 MET I	CPMS	Analytical Met	hod: EPA 20	0.8 Preparation Met	thod: EF	PA 200.8			
		Pace Analytica	al Services -	Kansas City					
Arsenic, Tota	I Recoverable	<0.0010	mg/L	0.0010	1	03/14/22 09:02	03/15/22 14:18	7440-38-2	
Cobalt, Total	Recoverable	0.0023	mg/L	0.0010	1	03/14/22 09:02	03/15/22 14:18	7440-48-4	
2540C Total	Dissolved Solids	Analytical Met	hod: SM 254	40C					
		Pace Analytica	al Services -	Kansas City					
Total Dissolv	ed Solids	1670	mg/L	20.0	1		03/15/22 13:27		
4500H+ pH,	Electrometric	Analytical Met	hod: SM 450	00-H+B					
•		Pace Analytica	al Services -	Kansas City					
pH at 25 Deg	grees C	7.1	Std. Units	0.10	1		03/11/22 09:02		H6
300.0 IC Ani	ons 28 Days	Analytical Met	hod: EPA 30	0.0					
	-	Pace Analytica	al Services -	Kansas City					
Chloride		46.1	mg/L	10.0	10		03/15/22 10:01	16887-00-6	
Fluoride		<0.20	mg/L	0.20	1		03/14/22 17:39	16984-48-8	
Sulfate		795	mg/L	100	100		03/14/22 17:53	14808-79-8	



Project: TEC 322 LANDFILL CCR

Pace Project No.: 60394593

Sample: DL	JP-322LF-030822	Lab ID: 603	94593005	Collected: 03/08/2	2 10:30	0 Received: 03	B/08/22 16:00 N	latrix: Water	
Comments:	 Cooler temperature 1 preservation. 	4.2° C upon receip	t. Ice was pr	esent, but melted. Sa	amples	did not meet the	requirement for th	nermal	
	Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals	s, Total	Analytical Met	hod: EPA 20	0.7 Preparation Met	hod: El	PA 200.7			
		Pace Analytica	al Services -	Kansas City					
Barium, Tota	I Recoverable	0.057	mg/L	0.0050	1	03/11/22 11:15	03/15/22 16:32	7440-39-3	
Boron, Total	Recoverable	0.11	mg/L	0.10	1	03/11/22 11:15	03/15/22 16:32	7440-42-8	
Calcium, Tota	al Recoverable	173	mg/L	0.60	3	03/31/22 16:07	04/01/22 16:11	7440-70-2	
200.8 MET I	CPMS	Analytical Met	hod: EPA 20	0.8 Preparation Met	hod: El	PA 200.8			
		Pace Analytica	al Services -	Kansas City					
Arsenic, Tota	I Recoverable	<0.0010	mg/L	0.0010	1	03/14/22 09:02	03/15/22 12:52	7440-38-2	
Cobalt, Total	Recoverable	<0.0010	mg/L	0.0010	1	03/14/22 09:02	03/15/22 12:52	7440-48-4	
2540C Total	Dissolved Solids	Analytical Met	hod: SM 254	40C					
		Pace Analytica	al Services -	Kansas City					
Total Dissolv	ed Solids	909	mg/L	10.0	1		03/15/22 13:27		
4500H+ pH,	Electrometric	Analytical Met	hod: SM 450	00-H+B					
• •		Pace Analytica	al Services -	Kansas City					
pH at 25 Deg	grees C	7.1	Std. Units	.10	1		03/11/22 09:01		H6
300.0 IC Ani	ons 28 Days	Analytical Met	hod: EPA 30	0.0					
		Pace Analytica	al Services -	Kansas City					
Chloride		39.1	mg/L	10.0	10		03/15/22 10:15	16887-00-6	
Fluoride		<0.20	mg/L	0.20	1		03/14/22 18:07	16984-48-8	
Sulfate		380	mg/L	100	100		03/14/22 18:20	14808-79-8	



Project:	TEC 322 LANE	FILL CCR										
Pace Project No.:	60394593											
QC Batch:	775034		Ana	lysis Metho	od: I	EPA 200.7						
QC Batch Method:	EPA 200.7		Ana	lysis Desci	ription: 2	200.7 Metal	s, Total					
			Lab	oratory:	I	Pace Analyt	ical Servic	es - Kansa	s City			
Associated Lab Sar	mples: 60394	593001, 60394593	3002, 603945	93003, 603	394593004,	603945930	05					
METHOD BLANK:	3093643			Matrix: V	Vater							
Associated Lab Sar	nples: 60394	593001, 60394593	3002, 603945	93003, 603	394593004,	603945930	05					
			Bla	ank	Reporting							
Parar	neter	Units	Re	sult	Limit	Analy	/zed	Qualifier	S			
		mg/L		<0.0050	0.005	0 03/15/22	2 16:15					
Barium												
Barium Boron		mg/L		<0.10	0.1	0 03/15/22	2 16:15					
		Ū	Spike Conc	e Li	0.1	0 03/15/22 LCS % Rec	2 16:15 % R Limi		Qualifiers			
Boron LABORATORY CO		E: 3093644		e Li	CS	LCS	% R Limi		Qualifiers			
Boron LABORATORY CO Parar		E: 3093644		e Li	CS esult	LCS % Rec	% R 8	ts (Qualifiers	_		
Boron LABORATORY CO Parar Barium	neter	E: 3093644 Units mg/L mg/L	Conc 093645	e Lu . Re 1 1	CS esult 0.98	LCS % Rec 98 99	% R 8	ts (85-115	Qualifiers	_		
Boron LABORATORY CO Parar Barium Boron	neter	E: 3093644 Units mg/L mg/L DUPLICATE: 30	Conc 093645 MS	e Lu Re 1 1 MSD	CS esult 0.98 0.95 3093646	LCS % Rec 98 99	% R 	ts (85-115) 85-115 85-115		_	Мах	
Boron LABORATORY CO Parar Barium Boron	neter IATRIX SPIKE D	E: 3093644 Units mg/L mg/L	Conc 093645 MS	e Lu . Re 1 1	CS esult 0.98 0.95	LCS % Rec 98 99	% R 8	ts (85-115	Qualifiers % Rec Limits	RPD	Max RPD	Qual
Boron LABORATORY COL Parar Barium Boron MATRIX SPIKE & M	neter IATRIX SPIKE E	E: 3093644 Units mg/L mg/L DUPLICATE: 30 6039459300	093645 MS 11 Spike Conc.	e Lu <u>Re</u> 1 1 MSD Spike	CS esult 0.98 0.95 3093646 MS	LCS % Rec 94 95 MSD	% R Limi 5 3	ts 0 85-115 85-115 MSD	% Rec		RPD	Qual

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:	TEC 322 LANDFII	LCCR										
Pace Project No.:	60394593											
QC Batch:	778997		Analy	sis Methor	d: E	PA 200.7						
QC Batch Method:	EPA 200.7		Analy	/sis Descrip	otion: 2	00.7 Metals	s, Total					
			Labo	ratory:	F	Pace Analyti	cal Servic	es - Kansa	s City			
Associated Lab Sar	mples: 60394593	001, 6039459300	02, 6039459	3003, 6039	94593004, 6	6039459300)5					
METHOD BLANK:	3107483			Matrix: Wa	ater							
Associated Lab Sa	mples: 60394593	001, 6039459300	02, 6039459	3003, 6039	94593004, 6	6039459300)5					
			Blar	nk I	Reporting							
		Units	Res	ult	Limit	Analy	zed	Qualifier	S			
Para	meter	Units	1103	un	Enne							
Para	meter	mg/L		<0.20	0.20	04/01/22	2 15:54					
	meter					04/01/22	2 15:54					
						04/01/22	2 15:54					
Calcium		mg/L	Spike		0.20	 004/01/22 LCS	2 15:54	ec				
Calcium		mg/L		<0.20	0.20 S				Qualifiers			
Calcium	NTROL SAMPLE:	mg/L 3107484	Spike Conc.	<0.20	0.20 S	LCS	% R Limi		Qualifiers			
Calcium LABORATORY CO Para Calcium	NTROL SAMPLE:	mg/L 3107484 Units mg/L	Spike Conc.	<0.20 LC Res	0.20 S	LCS % Rec	% R Limi	ts	Qualifiers			
Calcium LABORATORY CO Para Calcium	NTROL SAMPLE: meter	mg/L 3107484 Units mg/L	Spike Conc.	<0.20 LC Res	0.20 S sult	LCS % Rec	% R Limi	ts	Qualifiers	_		
Calcium LABORATORY CO Para Calcium	NTROL SAMPLE: meter	mg/L 3107484 Units mg/L	Spike 	<0.20 LC Res 0	0.20 S sult	LCS % Rec	% R Limi	ts	Qualifiers % Rec		Мах	
Calcium LABORATORY CO Para Calcium	NTROL SAMPLE: meter MATRIX SPIKE DUF	mg/L 3107484 Units mg/L PLICATE: 3107 60394593002	Spike 	<0.20 LC Res 0 MSD	0.20 S sult 10 3107486	LCS % Rec 100	% R Limi	ts		RPD	Max RPD	Qual

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:	TEC 322 LANDFI	LL CCR										
Pace Project No.:	60394593											
QC Batch:	775108		Anal	ysis Metho	d: E	PA 200.8						
QC Batch Method:	EPA 200.8		Anal	ysis Descri	ption: 2	00.8 MET						
			Labo	oratory:	P	ace Analyti	cal Servic	es - Kansas	s City			
Associated Lab San	nples: 60394593	3001, 6039459300	02, 6039459	93003, 603	94593004, 6	039459300)5					
METHOD BLANK:	3093949			Matrix: W	ater							
Associated Lab San	nples: 60394593	3001, 6039459300	02, 6039459	93003, 603	94593004, 6	6039459300)5					
			Bla	nk	Reporting							
Paran	neter	Units	Res	ult	Limit	Analy	zed	Qualifiers	3			
Arsenic		mg/L	<	0.0010	0.0010	03/15/22	2 13:44					
Cobalt		mg/L	<	0.0010	0.0010	03/15/22	2 13:44					
LABORATORY CON		3093950 Units	Spike Conc.	LC Res		LCS % Rec	% R Limi		Qualifiers			
Arsenic		mg/L)4	0.035	86	- <u> </u>	35-115		_		
Cobalt		mg/L	0.0		0.035	87		35-115				
MATRIX SPIKE & M	IATRIX SPIKE DUI	PLICATE: 3093	8951 MS	MSD	3093952							
		60394225001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	s Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Arsenic	mg/l	8.5 ug/L	0.04	0.04	0.042	0.042	85	83	70-130	1	20	
Cobalt	mg/l	_ 8.4 ug/L	0.04	0.04	0.047	0.046	96	94	70-130	1	20	
MATRIX SPIKE SAI	MPLE:	3093953										
			60394	593004	Spike	MS		MS	% Rec			
Paran	neter	Units	Re	esult	Conc.	Result	%	Rec	Limits		Qualif	fiers
Arsenic		mg/L		<0.0010	0.04	0.	039	97	70	-130		
Cobalt		-										

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

REPORT OF LABORATORY ANALYSIS

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Pace Project No:: 60394593 QC Batch: 775602 Analysis Method:: SM 2540C QC Batch Method:: SM 2540C Analysis Description: 2540C Total Dissolved Solids Laboratory: Pace Analytical Services - Kansas City Associated Lab Samples: 60394593001, 60394593002, 60394593003, 60394593004, 60394593005 Matrix: Water Associated Lab Samples: 60394593001, 60394593002, 60394593003, 60394593003, 60394593005 Qualifiers Parameter Units Result Limit Analyzed Qualifiers IABORATORY CONTROL SAMPLE: 3095838 Spike LCS % Rec Limits Qualifiers SAMPLE DUPLICATE: 3095839 mg/L <5.0 1020 102 80-120 SAMPLE DUPLICATE: 3095839 mg/L 900 928 3 10 SAMPLE DUPLICATE: 3095840 mg/L 900 928 3 10 SAMPLE DUPLICATE: 3095840 mg/L 900 928 3 10 SAMPLE DUPLICATE: 3095840 G0394512003 Dup Max	Project:	TEC 322 LANDFI	LL CCR							
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids Laboratory: Associated Lab Samples: 60394593001, 60394593002, 60394593003, 60394593004, 60394593005 Pace Analytical Services - Kansas City METHOD BLANK: 3095837 Matrix: Water Associated Lab Samples: 60394593001, 60394593002, 60394593003, 60394593004, 60394593005 Blank Reporting Parameter Units Result Limit Analyzed Qualifiers Total Dissolved Solids mg/L <5.0 5.0 03/15/22 13:25 Qualifiers SAMPLE DUPLICATE: 3095838 Exc Conc. Result % Rec Limits Qualifiers SAMPLE DUPLICATE: 3095839 60394593001 Dup Max Qualifiers Total Dissolved Solids mg/L 1000 1020 102 80-120 SAMPLE DUPLICATE: 3095839 60394593001 Dup Max Qualifiers Total Dissolved Solids mg/L 900 928 3 10 10 SAMPLE DUPLICATE: 3095840 G0394612003 Dup Max RPD Qualifiers	Pace Project No.:	60394593								
Laboratory: Pace Analytical Services - Kansas City Associated Lab Samples: 60394593001, 60394593002, 60394593003, 60394593004, 60394593005 METHOD BLANK: 3095837 Matrix: Water Associated Lab Samples: 60394593001, 60394593002, 60394593003, 60394593003, 60394593005 Blank Reporting Parameter Units Result Limit Analyzed Qualifiers Itaboratory: Spike Conc. Result Parameter Units Mits Water Associated Lab Samples: 3095838 Parameter Units Conc. Result Mec Laboratory: Necc Limits Qualifiers Qualifiers Total Dissolved Solids mg/L 1000 1020 102 80-120 SAMPLE DUPLICATE: 3095839 60394593001 Dup Max PPD Qualifiers SAMPLE DUPLICATE: 3095840 60394612003 Dup Max PPD Qualifiers SAMPLE DUPLICATE: 3095840 60394612003	QC Batch:	775602		Analysis Me	ethod:	SM 2540C				
Associated Lab Samples: 60394593001, 60394593002, 60394593003, 60394593004, 60394593005 METHOD BLANK: 3095837 Associated Lab Samples: 60394593001, 60394593002, 60394593003, 60394593005 Parameter Units Result Emit Analyzed Qualifiers Total Dissolved Solids mg/L <5.0 5.0 03/15/22 13:25 LABORATORY CONTROL SAMPLE: 3095838 Parameter Units Spike LCS LCS % Rec Limits Qualifiers Total Dissolved Solids mg/L 1000 1020 102 80-120 SAMPLE DUPLICATE: 3095839 Parameter Units mg/L 900 928 3 10 SAMPLE DUPLICATE: 3095840 Parameter Units mg/L 900 928 3 10	QC Batch Method:	SM 2540C		Analysis De	escription:	2540C Total Di	ssolved Solids			
METHOD BLANK: 3095837 Matrix: Water Associated Lab Samples: 60394593002, 60394593003, 60394593004, 60394593005 Blank Reporting Parameter Units Reporting Limit Analyzed Qualifiers Total Dissolved Solids mg/L <5.0				Laboratory	:	Pace Analytica	l Services - Ka	nsas C	City	
Associated Lab Samples: 60394593001, 60394593002, 60394593003, 60394593004, 60394593005 Blank Reporting Limit Analyzed Qualifiers Total Dissolved Solids mg/L <5.0	Associated Lab Sar	nples: 60394593	3001, 6039459300	02, 60394593003,	60394593004,	60394593005				
ParameterUnitsBlank ResultReporting LimitAnalyzedQualifiersTotal Dissolved Solidsmg/L<5.0	METHOD BLANK:	3095837		Matrix	k: Water					
ParameterUnitsResultLimitAnalyzedQualifiersTotal Dissolved Solidsmg/L<5.0	Associated Lab Sar	nples: 60394593	3001, 6039459300	02, 60394593003,	60394593004,	60394593005				
Total Dissolved Solidsmg/L<5.05.003/15/22 13:25LABORATORY CONTROL SAMPLE:3095838ParameterUnitsSpikeLCSLCS% RecParameterUnitsGonc.Result% RecLimitsQualifiersTotal Dissolved Solidsmg/L1000102010280-120SAMPLE DUPLICATE:309583960394593001 ResultDup ResultMax RPDQualifiersTotal Dissolved Solidsmg/L60394593001 900Dup 928310SAMPLE DUPLICATE:3095840 Result60394612003 ResultDup ResultMax RPDQualifiersSAMPLE DUPLICATE:3095840 Result60394612003 ResultDup ResultMax RPDQualifiers				Blank	Reporting					
LABORATORY CONTROL SAMPLE: 3095838 Parameter Units Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Total Dissolved Solids mg/L 1000 1020 102 80-120 SAMPLE DUPLICATE: 3095839 60394593001 Dup Max Parameter Units Result RPD RPD Qualifiers Total Dissolved Solids mg/L 900 928 3 10 SAMPLE DUPLICATE: 3095840 60394612003 Dup Max RPD Qualifiers SAMPLE DUPLICATE: 3095840 60394612003 Dup Max RPD Qualifiers	Paran	neter	Units	Result	Limit	Analyze	d Qual	ifiers		
ParameterUnitsSpike Conc.LCS ResultLCS % RecLCS LimitsQualifiersTotal Dissolved Solidsmg/L1000102010280-120SAMPLE DUPLICATE:3095839ParameterUnits60394593001 ResultDup ResultMax RPDQualifiersTotal Dissolved Solidsmg/L900928310SAMPLE DUPLICATE:309584060394612003 ResultDup ResultRPDMax RPDQualifiersSAMPLE DUPLICATE:309584060394612003 ResultDup ResultRPDMax RPDQualifiers	Total Dissolved Soli	ds	mg/L		5.	0 03/15/22 1	3:25		_	
ParameterUnitsSpike Conc.LCS ResultLCS % RecLCS LimitsQualifiersTotal Dissolved Solidsmg/L1000102010280-120SAMPLE DUPLICATE:3095839ParameterUnits60394593001 ResultDup ResultMax RPDQualifiersTotal Dissolved Solidsmg/L900928310SAMPLE DUPLICATE:309584060394612003 ResultDup ResultRPDMax RPDQualifiersSAMPLE DUPLICATE:309584060394612003 ResultDup ResultRPDMax RPDQualifiers										
ParameterUnitsConc.Result% RecLimitsQualifiersTotal Dissolved Solidsmg/L1000102010280-120SAMPLE DUPLICATE:309583960394593001 ResultDup ResultMax RPDQualifiersParameterUnits60394593001 ResultDup ResultMax RPDQualifiersTotal Dissolved Solidsmg/L900928310SAMPLE DUPLICATE:309584060394612003 ResultDup ResultMax RPDQualifiersSAMPLE DUPLICATE:309584060394612003 ResultDup ResultMax RPDQualifiers	LABORATORY COI	NTROL SAMPLE:	3095838							
Total Dissolved Solidsmg/L1000102010280-120SAMPLE DUPLICATE: 3095839 Parameter60394593001 ResultDup ResultMax RPDQualifiersTotal Dissolved Solidsmg/L900928310SAMPLE DUPLICATE: 3095840 Parameter60394612003 ResultDup ResultMax RPDQualifiersSAMPLE DUPLICATE: 3095840 Parameter00394612003 ResultDup ResultMax RPDQualifiers				Spike	LCS	LCS	% Rec			
SAMPLE DUPLICATE:309583960394593001 ResultDup ResultMax RPDQualifiersParameterUnitsResultResultRPDQualifiersTotal Dissolved Solidsmg/L900928310SAMPLE DUPLICATE:309584060394612003 ResultDup ResultMax RPDMax RPDParameterUnits60394612003 ResultDup ResultMax RPDQualifiers	Paran	neter	Units	Conc.	Result	% Rec	Limits	Qu	alifiers	
ParameterUnits60394593001 ResultDup ResultMax RPDQualifiersTotal Dissolved Solidsmg/L900928310SAMPLE DUPLICATE:3095840 Parameter60394612003 ResultDup ResultRPDMax RPDQualifiersParameterUnits60394612003 ResultDup ResultRPDMax RPDQualifiers	Total Dissolved Soli	ds	mg/L	1000	1020	102	80-120			
ParameterUnits60394593001 ResultDup ResultMax RPDQualifiersTotal Dissolved Solidsmg/L900928310SAMPLE DUPLICATE:3095840 Parameter60394612003 ResultDup ResultRPDMax RPDQualifiersParameterUnits60394612003 ResultDup ResultRPDMax RPDQualifiers										
ParameterUnitsResultResultRPDRPDQualifiersTotal Dissolved Solidsmg/L900928310SAMPLE DUPLICATE: 309584060394612003 ResultDup ResultMax RPDQualifiersParameterUnits60394612003 ResultDup ResultRPDMax RPDQualifiers	SAMPLE DUPLICA	TE: 3095839								
Total Dissolved Solidsmg/L900928310SAMPLE DUPLICATE: 309584060394612003 ResultDup ResultMax RPDQualifiersParameterUnitsResultRPDQualifiers					•					
SAMPLE DUPLICATE: 3095840 <u>60394612003</u> Dup Max <u>Parameter</u> Units Result RPD RPD Qualifiers	Paran	neter	Units	Result	Result	RPD	RPD		Qualifiers	
Parameter Units 60394612003 Dup Max Parameter Units Result Result RPD Qualifiers	Total Dissolved Soli	ds	mg/L	900) 92	8	3	10		
Parameter Units 60394612003 Dup Max Parameter Units Result Result RPD Qualifiers										
Parameter Units Result Result RPD RPD Qualifiers	SAMPLE DUPLICA	TE: 3095840								
Total Dissolved Solids mg/L 408 428 5 10	Parar	neter	Units	Result	Result	RPD	RPD		Qualifiers	
	Total Dissolved Soli	ds	mg/L	408	3 42	8	5	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:	TEC 322 LANDFIL	L CCR						
Pace Project No.:	60394593							
QC Batch:	774977		Analysis Meth	iod:	SM 4500-H+B			
QC Batch Method:	SM 4500-H+B		Analysis Desc	ription:	4500H+B pH			
			Laboratory:		Pace Analytical	Services - Kar	nsas City	
Associated Lab Sar	mples: 603945930	001, 6039459300	2, 60394593003, 60	394593004	, 60394593005			
SAMPLE DUPLICA	TE: 3093396							
			60394486001	Dup		Max		
Parar	neter	Units	Result	Result	RPD	RPD	Qualifiers	
pH at 25 Degrees C	;	Std. Units	8.4	8	3.4	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.



QC Batch:	775323		Analy	sis Metho	4. ⊑	PA 300.0						
QC Batch Method:	EPA 300.0		-	sis Descri		00.0 IC Ani	ากร					
QO Daten Method.	EI A 300.0		-	atory:		ace Analyti		s - Kansa	s Citv			
Associated Lab Sar	nples: 60394593	001, 6039459300							o ony			
METHOD BLANK:	3094699			Matrix: W	ater							
Associated Lab Sar	mples: 60394593	001, 6039459300	2, 6039459	3003, 603	94593004, 6	039459300	5					
_			Blan		Reporting			o ""				
Parar	neter	Units	Resu	ult	Limit	Analy	zed	Qualifier	S			
Chloride		mg/L		<1.0	1.0							
Fluoride		mg/L		<0.20	0.20							
Sulfate		mg/L		<1.0	1.0	03/14/22	09:21					
METHOD BLANK:	3095674			Matrix: W	ater							
Associated Lab Sar	mples: 60394593	001, 6039459300	2, 6039459 Blan			6039459300	5					
Parar	neter	Units	Resu		Reporting Limit	Analy	zed	Qualifier	s			
Chloride		mg/L		<1.0	1.0	03/15/22	08:52					
Fluoride		mg/L		<0.20	0.20							
Sulfate		mg/L		<1.0	1.0	03/15/22	08:52					
LABORATORY CO	NTROL SAMPLE:	3094700										
Parar	neter	Units	Spike Conc.	LC Res		LCS % Rec	% Re Limit		Qualifiers			
Chloride				5	4.6	93		0-110	Qualifiero	_		
Fluoride		mg/L mg/L	2.		4.0 2.7	93 106		0-110				
		mg/L		5	4.8	96		0-110				
Sulfate												
Sulfate		3005675										
Sulfate	NTROL SAMPLE:	3095675	Spike	LC	s	LCS	% Re	C				
Sulfate		3095675 Units	Spike Conc.	LC Res		LCS % Rec	% Re Limit		Qualifiers			
Sulfate LABORATORY COI Parar		Units	Conc.	Res	ult	% Rec	Limit	s	Qualifiers	_		
Sulfate LABORATORY COI Parar Chloride		Units mg/L	Conc.		ult 4.7	% Rec 95	Limit	s 0-110	Qualifiers	_		
Sulfate LABORATORY COI Parar		Units	Conc.		ult	% Rec	Limit: 9 9	s	Qualifiers	_		
Sulfate LABORATORY COI Parar Chloride Fluoride	neter	Units mg/L mg/L mg/L	Conc.	Res 5 5	4.7 2.7 4.9	% Rec 95 108	Limit: 9 9	s 0-110 0-110	Qualifiers	_		
Sulfate LABORATORY COI Parar Chloride Fluoride Sulfate	neter	Units mg/L mg/L mg/L	Conc.	Res 5 5	4.7 2.7	% Rec 95 108	Limit: 9 9	s 0-110 0-110	Qualifiers	_		
Sulfate LABORATORY COI Parar Chloride Fluoride Sulfate	neter	Units mg/L mg/L mg/L	Conc.	Res 5 5 5	4.7 2.7 4.9	% Rec 95 108	Limit: 9 9	s 0-110 0-110	Qualifiers % Rec	_	Max	
Sulfate LABORATORY COI Parar Chloride Fluoride Sulfate	neter IATRIX SPIKE DUF	Units mg/L mg/L mg/L LICATE: 3094 60394722001	Conc. 2. 701 MS	Res 5 5 5 5 MSD	ult 4.7 2.7 4.9 3094702	% Rec 95 108 97	9 9 9	s 0-110 0-110 0-110 0-110		RPD	Max RPD	Qua
Sulfate LABORATORY COI Parar Chloride Fluoride Sulfate MATRIX SPIKE & M Paramete	neter IATRIX SPIKE DUF	Units mg/L mg/L mg/L LICATE: 3094 60394722001 Result	Conc. 2.4 701 MS Spike	Res 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	ult 4.7 2.7 4.9 3094702 MS	% Rec 95 108 97 MSD		s 0-110 0-110 0-110 MSD	% Rec Limits		RPD	Qual
Sulfate LABORATORY COI Parar Chloride Fluoride Sulfate MATRIX SPIKE & M	neter IATRIX SPIKE DUF rUnits	Units mg/L mg/L mg/L LICATE: 3094 60394722001 Result 105	Conc. 2.3 701 MS Spike Conc.	Res 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	ult 4.7 2.7 4.9 3094702 MS Result	% Rec 95 108 97 MSD Result	MS % Rec	s 0-110 0-110 0-110 0-110 MSD % Rec	% Rec Limits 80-120		RPD 15	

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

REPORT OF LABORATORY ANALYSIS

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Project: TEC 322 LANDFILL CCR

Pace Project No.: 60394593

MATRIX SPIKE SAMPLE:	3094703						
		60394120003	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Chloride	mg/L	155	250	393	95	80-120	
Fluoride	mg/L	ND	125	154	116	80-120	
Sulfate	mg/L	64.7	250	317	101	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.



Project: TEC 322 LANDFILL CCR

Pace Project No.: 60394593

Sample: MW-1-030822 PWS:	Lab ID: 6039 Site ID:	4593001 Collected: 03/08/22 10:30 Sample Type:	Received:	03/08/22 16:00	Matrix: Water	
Comments: • Cooler tempera preservation.	ature 14.2° C upon receipt.	Ice was present, but melted. Samples	did not meet th	ne requirement for	thermal	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg				
Radium-226	EPA 903.1	0.0289 ± 0.408 (0.832) C:NA T:85%	pCi/L	03/31/22 13:08	3 13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 904.0	0.560 ± 0.428 (0.842) C:71% T:74%	pCi/L	03/30/22 11:42	15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	0.589 ± 0.836 (1.67)	pCi/L	04/08/22 13:11	7440-14-4	



Project: TEC 322 LANDFILL CCR

Pace Project No.: 60394593

Sample: MW-4-030822 PWS:	Lab ID: 6039 Site ID:	4593002 Collected: 03/08/22 12:20 Sample Type:	Received:	03/08/22 16:00	Matrix: Water	
Comments: • Cooler tempera preservation.	ature 14.2° C upon receipt.	Ice was present, but melted. Samples	did not meet th	ne requirement for	thermal	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg				
Radium-226	EPA 903.1	-0.130 ± 0.420 (0.934) C:NA T:89%	pCi/L	03/31/22 13:08	3 13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 904.0	1.17 ± 0.467 (0.736) C:74% T:85%	pCi/L	03/30/22 11:42	15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	1.17 ± 0.887 (1.67)	pCi/L	04/08/22 13:11	7440-14-4	



Project: TEC 322 LANDFILL CCR

Pace Project No.: 60394593

Sample: MW-5-030822 PWS:	Lab ID: 6039 Site ID:	4593003 Collected: 03/08/22 13:45 Sample Type:	6 Received:	03/08/22 16:00	Matrix: Water	
Comments: • Cooler tempera preservation.	ature 14.2° C upon receipt.	Ice was present, but melted. Samples	did not meet th	ne requirement for	thermal	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg				
Radium-226	EPA 903.1	-0.270 ± 0.615 (1.28) C:NA T:92%	pCi/L	03/31/22 13:08	3 13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 904.0	0.475 ± 0.398 (0.804) C:67% T:90%	pCi/L	03/30/22 11:42	15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	0.475 ± 1.01 (2.08)	pCi/L	04/08/22 13:11	7440-14-4	



Project: TEC 322 LANDFILL CCR

Pace Project No.: 60394593

Sample: MW-6-030822 PWS:	Lab ID: 6039 Site ID:	4593004 Collected: 03/08/22 11:25 Sample Type:	Received:	03/08/22 16:00	Matrix: Water	
Comments: • Cooler tempera preservation.	ature 14.2° C upon receipt.	Ice was present, but melted. Samples	did not meet th	ne requirement for	thermal	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg			_	
Radium-226	EPA 903.1	-0.281 ± 0.449 (1.02) C:NA T:98%	pCi/L	03/31/22 13:08	3 13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 904.0	0.638 ± 0.402 (0.765) C:72% T:90%	pCi/L	03/30/22 11:42	15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	0.638 ± 0.851 (1.79)	pCi/L	04/08/22 13:11	7440-14-4	



Project: TEC 322 LANDFILL CCR

Pace Project No.: 60394593

Sample: DUP-322LF-030822 PWS:	Lab ID: 6039 Site ID:	4593005 Collected: 03/08/22 10:30 Sample Type:	Received:	03/08/22 16:00	Matrix: Water	
Comments: • Cooler temperatu preservation.	re 14.2° C upon receipt.	Ice was present, but melted. Samples	did not meet th	e requirement for	thermal	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg			_	
Radium-226	EPA 903.1	-0.197 ± 0.386 (0.910) C:NA T:93%	pCi/L	03/31/22 13:31	13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 904.0	0.639 ± 0.390 (0.734) C:70% T:93%	pCi/L	03/30/22 11:43	15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	0.639 ± 0.776 (1.64)	pCi/L	04/08/22 13:11	7440-14-4	



QUALITY CONTROL - RADIOCHEMISTRY

Project:	TEC 322 LANDFILL CCR					
Pace Project No.:	60394593					
QC Batch:	490875	Analysis Method:	EPA 903.1			
QC Batch Method:	EPA 903.1	Analysis Description:	903.1 Radium-226	6		
		Laboratory:	Pace Analytical Se	ervices - Greensburg	g	
Associated Lab Sa	mples: 60394593001, 60394	593002, 60394593003, 6039459300	4, 60394593005			
METHOD BLANK:	2374606	Matrix: Water				
Associated Lab Sa	mples: 60394593001, 603945	593002, 60394593003, 6039459300	4, 60394593005			
Para	meter A	ct ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers	
Radium-226	0.104 ± 0.3	98 (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:	TEC 322 LANDFIL	LCCR				
Pace Project No .:	60394593					
QC Batch:	490877	Analysis Method:	EPA 904.0			
QC Batch Method:	EPA 904.0	Analysis Description:	904.0 Radium 228	3		
		Laboratory:	Pace Analytical Se	ervices - Greensburg	9	
Associated Lab Sa	mples: 603945930	001, 60394593002, 60394593003, 6039459300	4, 60394593005			
METHOD BLANK:	2374610	Matrix: Water				
Associated Lab Sa	mples: 603945930	001, 60394593002, 60394593003, 6039459300	4, 60394593005			
Para	meter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers	
Radium-228		0.365 ± 0.256 (0.481) C:75% 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: TEC 322 LANDFILL CCR

Pace Project No.: 60394593

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

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: TEC 322 LANDFILL CCR Pace Project No.: 60394593

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytica Batch
60394593001	MW-1-030822	EPA 200.7	775034	EPA 200.7	775148
60394593001	MW-1-030822	EPA 200.7	778997	EPA 200.7	779091
60394593002	MW-4-030822	EPA 200.7	775034	EPA 200.7	775148
60394593002	MW-4-030822	EPA 200.7	778997	EPA 200.7	779091
60394593003	MW-5-030822	EPA 200.7	775034	EPA 200.7	775148
60394593003	MW-5-030822	EPA 200.7	778997	EPA 200.7	779091
60394593004	MW-6-030822	EPA 200.7	775034	EPA 200.7	775148
0394593004	MW-6-030822	EPA 200.7	778997	EPA 200.7	779091
0394593005	DUP-322LF-030822	EPA 200.7	775034	EPA 200.7	775148
60394593005	DUP-322LF-030822	EPA 200.7	778997	EPA 200.7	779091
60394593001	MW-1-030822	EPA 200.8	775108	EPA 200.8	775371
60394593002	MW-4-030822	EPA 200.8	775108	EPA 200.8	775371
0394593003	MW-5-030822	EPA 200.8	775108	EPA 200.8	775371
0394593004	MW-5-030822 MW-6-030822	EPA 200.8	775108	EPA 200.8	775371
0394593005	DUP-322LF-030822	EPA 200.8	775108	EPA 200.8	775371
0394593001	MW-1-030822	EPA 903.1	490875		
0394593002	MW-4-030822	EPA 903.1	490875		
0394593003	MW-5-030822	EPA 903.1	490875		
0394593004	MW-6-030822	EPA 903.1	490875		
0394593005	DUP-322LF-030822	EPA 903.1	490875		
0394593001	MW-1-030822	EPA 904.0	490877		
0394593002	MW-4-030822	EPA 904.0	490877		
0394593003	MW-5-030822	EPA 904.0	490877		
0394593004	MW-6-030822	EPA 904.0	490877		
0394593005	DUP-322LF-030822	EPA 904.0	490877		
0394593001	MW-1-030822	Total Radium Calculation	496153		
0394593002	MW-4-030822	Total Radium Calculation	496153		
0394593003	MW-5-030822	Total Radium Calculation	496153		
0394593004	MW-6-030822	Total Radium Calculation	496153		
0394593005	DUP-322LF-030822	Total Radium Calculation	496153		
0394593001	MW-1-030822	SM 2540C	775602		
0394593002	MW-4-030822	SM 2540C	775602		
0394593003	MW-5-030822	SM 2540C	775602		
0394593004	MW-6-030822	SM 2540C	775602		
0394593005	DUP-322LF-030822	SM 2540C	775602		
0394593001	MW-1-030822	SM 4500-H+B	774977		
0394593002	MW-4-030822	SM 4500-H+B	774977		
0394593003	MW-5-030822	SM 4500-H+B	774977		
0394593004	MW-6-030822	SM 4500-H+B	774977		
0394593005	DUP-322LF-030822	SM 4500-H+B	774977		



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: TEC 322 LANDFILL CCR Pace Project No.: 60394593

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60394593002	MW-4-030822	EPA 300.0	775323		
60394593003	MW-5-030822	EPA 300.0	775323		
60394593004	MW-6-030822	EPA 300.0	775323		
60394593005	DUP-322LF-030822	EPA 300.0	775323		

					WU#:60394	593
	Pace	DC#_Title: ENV-F	_		60394593	
	- F		Effective Date: 01	/12/2022	Issued By: Lenexa	
Client Nan		ergy			1	
Courier:	FedEx D UPS] PEX 🗆 ECI	Pace	e □ Xroads □ Client □ Other □	כ
Tracking #:		<u> </u>	Pace Shipping Lab	el Used? Y	es 🗆 No 🗹	
	I on Cooler/Box					
Packing Mate	10	Wrap D Bubble E		ım □ I ıe None	None Other 72PC	-
Cooler Temp	erature (°C): A	s-read <u>5მ,3.</u> გ Corr	. Factor D. O	corrected $\underline{5}$	Date and initials of examining contents	Vers 3/20
Temperature sh	hould be above freez	ring to 6°C				
Chain of Cust	ody present:		Dyres □No	□n/A		
Chain of Custo	ody relinquished:		Yes DNo	□n/A		
Samples arrive	ed within holding	time:		□n/a		
Short Hold Ti	ime analyses (<7	2hr):	□Yes □∕o	□n/A		
Rush Turn Ar	round Time requ	ested:		□n/a		
Sufficient volu	me:		↓ Ves □No	🗆 N/A		
Correct contain	ners used:					
Pace containe	rs used:		Yes DNo			
Containers inta	act:		Yes DNo	□n/A		
Unpreserved 5	5035A / TX1005/1	006 soils frozen in 48hrs	? 🛛 Yes 🖾 No 🛛			
Filtered volume	e received for dise	solved tests?	□Yes □No	ZN/A		
Sample labels	match COC: Date	e / time / ID / analyses	Ves DNo			
Samples conta	in multiple phase	s? Matrix: WH				
(HNO3, H2SO4, H	ICI<2; NaOH>9 Sul	ation in compliance? fide, NaOH>10 Cyanide)	Types INO E	⊐ _{N/A} List sa date/ti	ample IDs, volumes, lot #'s of preserva ime added.	tive and the
	OA, Micro, O&G, KS sample checks:	TPH, OK-DRO)	LOT#:55/92			
	trip turns dark? (F		□Yes □No			
Potassium iodio	de test strip turns	blue/purple? (Preserve)	□Yes □No			
Trip Blank pres	sent:		□Yes □No [INIA		
Headspace in \	VOA vials (>6mm):	□Yes □No			
Samples from U	USDA Regulated	Area: State:	□Yes □No [AIN		
		5A / TX1005 vials in the	field? 🗆 Yes 🗆 No	INIA		
	tion/ Resolution:	Сору С	OC to Client? Y //	N F	ield Data Required? Y / N	
Person Contact	7	D	ate/Time:			
Comments/ Res	solution:					
Project Manage	er Review:			Date:		

1104.00004



CHAIN-OF-CUSTODY / Analytical Request Document

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

_	d Client Information:	Section B Required P								Invoi	tion C ce Info		on:														Γ	Page:	1		of	1	
Company	EVERGY KANSAS CENTRAL, INC.	Report To:	Melis	ssa N	Aichels, S	Samantha	a Kaney, D	anielle (ber	Atten	ntion:	ŀ	Acco	unts	Pay	able												-					
Address;	Jeffrey Energy Center (JEC)	Copy To:	Jare	d Mo	rrison, Ja	ake Hum	phrey, Lau	ira Hines	8	Com	pany N	Vame	E	VER	GYI	KAN	SAS	CE	VTR	AL,	INC	REC	JULA	TOF	Y A	GEN	CY			_			
	818 Kansas Ave, Topeka, KS 66612									Addr	ess:	ę	_	Sectio		_						_	NPD	-	_	-	_	WAT	ER ī		RINKING	WATER	2
Email To	melissa.michels@evergy.com	Purchase O	rder N	0.:						Pace	Quote				-	_	-	-	-	-	-		UST			RCR					THER		
Phone:	785-575-8113 Fax:	Project Nam	e:	TEC	322 Lan	dfill CCR	1				Project	i /	lice	Spill	er 9	13-50	63-1	403		-		Sit	e Loc	ation	-	-	-				C IVAL D	123 3 5	THE S
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	Section D Valid Matrix C	odes	ê	6					Г	Г	Т		-				悖	_	Г	Γ		T		Т		Ť	T	100					
	Required Client Information MATRIX DRINKING WATER	CODE DW	valid codes to left)	C=COMP)		COLL	ECTED		Ļ		L	P	rese	rvati	ves		IN X	N	N	N	N	N	N.				_					Sec. Sine	
	WATER WASTE WATER	WT WW	1 code		COMPO		COMPOS	SITE	Į į																								
	PRODUCT SOL/SOLID OIL	P SL	e vallo	(G=GRAB	STA	RT	END/GF	BAS	COLLECTION									م *	*									Residual Chlorine (Y/N)				-	7
		OL WP AR	ees)	9					AT CC	ERS							St	etal	etal		4							jue	1		294	c9"	5
	(A-Z, 0-9 / ,-) OTHER Sample IDs MUST BE UNIQUE TISSUE	OT TS	B	TYPE					TEMP A	NA.	g						۳ ۳		N	툅	S04	s						اغ با	1	ŝ	100	20	/
#			× I	<u>}</u>					Ë	No.	Ser				പ്പ	2	Vsi	ğ	١ ۲	12	Ľ,	잍	226/228					al	N	20	5'		
ITEM			MATRIX CODE	SAMPLE					SAMPLE '	# OF CONTAINERS	bre	H ₂ SO ₄		NaOH	Na ₂ S ₂ O ₃	Methanol	LAnalysis Test	200.7	200.8 Total Metals*	4500 H+B pH	300: CI, I	2540C TDS	53					sidu	1	γv	1.8		
			Σ		DATE	TIME	DATE	TIME	Ø	+	칠	Ξ	Π¥	ž	ž	žč	5 1 3	R R	<u>Š</u>	45	ŝ	52	R R	1				Å	Pr	ice F	roject N	o./ Lab	I.D.
1	MW-1-030822		WT	G			03/08/22	10:30		5	2	_	3	\vdash	-	_	-	X	X	X	x	×	x	-			_					_	
2	MW-4-030822		WT	G		•	03/08/22	12:20	ŀ	5	2		3	\vdash	+	_	-	×	1	1	X	-	x						<u> </u>				
3	MW-5-030822		WT	G			03/08/22	13:45	3	5	2		3	\vdash	+	_	-	×	1	-	х		×	+		_	_						
4	MW-6-030822		WΤ	G		<u>.</u>	03/08/22	11:25	12	5	2	-t-	3	+	-	-	4	×	<u> </u>	-	x	-	×	+		+	+			_			
5	DUP-322LF-030822		wт	G		· · ·	03/08/22	10:30		5	2	-	3	+	+	_	-	×	X	X	X	X	×	+	$\left \right $	-	+	+					
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	ADDITIONAL COMMENTS		RELI	QUIS	SHED BY /	AFFILIATI	ON	DATI		1	TIME				ACC	EPTE	D BY	/ AF	FILIA	TIO	1		DA	TE	1				S/	AMPL		ONS	
200.7 To	tal Metals*: B, Ca, Ba			Ja	ison R. Fra	anks		3/8/2	,	1	6:00		1	0	7	2	. /	R	20	e			38	20	K	ò	1<	5.0	V	π	N	$\overline{\lambda}$,
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Page 37 of					, r		PRINT Name			-	n P	Ere	ake		-	/	,		-				-				-	Temp in °C	Received on Ice (Y/N)		Custody Sealed Cooler (Y/N)	Samples Intact	2
37 of							SIGNATURI					ria	Z	> -	1	-	7		ATE								-	Temp	Receiv Ice (Cooler	alqme	3
f 43					b				-	7	-	~	4.	1	1		h	1 (VIM/D	D/Y):	-	-	3/8/2	2	-					σĞ	ŝ	

DC#_Title: ENV-FRM-LENE-0001_Sample Container Count Revision: 3 | Effective Date: | Issuer by Lenexa

V Client: Landfill CCR ec 322 Site:

965 Profile #

Notes

COC Line Item	Matrix	VG9H	DG9H	DG9G	VG9U	DG9U	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	MGDU	BP1U	BP2U	BP3U	BP1N	BP3N	BP3F	BP3S	BP3C	BP3Z	WPDU	ZPLC	Other	
1	Ņŗ	<u> </u>				_	_												1		1	2									
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Container Codes

		Glass			Plastic		Misc.
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar	BP1C	1L NAOH plastic		Wipe/Swab
)G9H	40mL HCI 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
)G9S	40mL H2SO4 amber vial	AGOU	100mL unores amber glass	BP1Z	1L NaOH, Zn Acetate	C	Air Cassettes
DG9T	40mL Na Thio amber vial	AG1H	1L HCI 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		
/G9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic	1	
/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		Matrix
3G1U	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
3G3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass	BP3U	250mL unpreserved plastic	NAL	Non-aqueous Liquid
VGDU	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

60394593

In	tern	al Transfer Cl	nain	of Custo	dy		-										
					s Pre-Logged	into eCC	C.			e Of Orig					/-	Pace	Analytica
	orkorde	r: 60394593 Worl	order N	ame: TEC 3	22 LANDFILL	CCR		- 1.47000001047		Needed er Recei		X Ye Date:	3/8/2022	Rest	Ilts Red	quested By	: 3/25/2022
Pac 960 Len	18 Loiret iexa, KS	tical Kansas		Pace 1638 Suites Greer	Analytical Pittst Roseytown Roa s 2,3, & 4 hsburg, PA 156 e (724)850-560	ad ⁻ 01					I Radium 226	0 Radium 228	Request	ed Analys			
			Sample	Collect				reserv	red Con	tainers	903.	904.0					
	Sampl		Туре	Date/Time	Lab ID	Matrix	HN03										LAB USE ONLY
1	MW-1-03	· · · · · · · · · · · · · · · · · · ·	PS	3/8/2022 10:30	60394593001	Water	2				Х	X			╉╾┟╴		
2	MW-4-03	·····	PS	3/8/2022 12:20	60394593002	Water	2				Х	X					001
3	MW-5-03		PS	3/8/2022 13:45	60394593003	Water	2				Х	X					00]
<u> </u>	MW-6-03		PS	3/8/2022 11:25	60394593004	Water	2				Х	X					004
5	DUP-322	LF-030822	PS	3/8/2022 10:30	60394593005	Water	2				Х	X					005
Tran	sfers	Released Pu				en en liner		60396			033	e distanció			Commen	ts	
1 2 3	······		<u></u>	Date/Time	Received B 182 Riv		σ.	Ar	3/	Date/Time / <u>() / 7 7</u>		30	***QC SHE	ETS REC	QUIRED	***	
Coo	oler Ter	nperature on Receipt		°C Cus	tody Seal (Y	<u>)or</u> N			Rece	ived on	Ice(r N	S	Sample	s Intact Y	or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.

This chain of custody is considered complete as is since this information is available in the owner laboratory.



43

Pittsburgh Lab Sample Co	ondition	Upo	n Re	eceipt	
Pace Analytical Client Name	: <u>P</u> a	<u>e</u> e	K.	5	Project # <u>3047304</u> 0
Courier: Fed Ex UPS USPS	Client	Comm	ercial	Pace Other	Label JB1+
Tracking #: 5333 8760 10	650	_			LIMS Login VP
Custody Seal on Cooler/Box Present:	yes 🗌	по	Seal	s intact: 🖉 yes 🗌] no
Thermometer Used 15	Туре	of Ice:	We	Blue None me	elfed
-	141.8	۰c	Corr	ection Factor: 6	°С Final Temp <u>: / 4, </u> С
Temp should be above freezing to 6°C					·
				pH paper Lot#	Date and Initials of person examining contents:
Comments:	Yes	No	N/A	101 2811	3.16.22
Chain of Custody Present:				1.	
Chain of Custody Filled Out:		<u> </u>		2.	
Chain of Custody Relinquished:	/_		ļ	3.	
Sampler Name & Signature on COC:			<u> </u>	4.	
Sample Labels match COC:			I	5.	
-Includes date/time/ID Matrix		1	<u></u>		
Samples Arrived within Hold Time:	/	<u> </u>		6.	
Short Hold Time Analysis (<72hr remaining	<u>j):</u>	Ľ	ļ	7.	
Rush Turn Around Time Requested:				8.	
Sufficient Volume:				9.	
Correct Containers Used:		ļ		10.	
-Pace Containers Used:	/	ļ			······································
Containers Intact:		<u> </u>		11.	
Orthophosphate field filtered		ļ	/	12.	
Hex Cr Aqueous sample field filtered		ļ		13.	
Organic Samples checked for dechlorinal	tion:			14.	
Filtered volume received for Dissolved tests			/	15.	
All containers have been checked for preservation.				16. PHLZ	
exceptions: VOA, coliform, TOC, O&G, Phen Non-aqueous matrix	olics, Rador), 		1	
All containers meet method preservation requirements.	/			completed JRA	Date/time of preservation
requiremente.	L.	<u>I</u>	L	Lot # of added	
	1			preservative	
Headspace in VOA Vials (>6mm):				17.	
Trip Blank Present:			Ļ	18.	
Trip Blank Custody Seals Present				Initial when	Suprov Mater
Rad Samples Screened < 0.5 mrem/hr				completed: SBH	Date: 3.16. Ad SN: 1560
Client Notification/ Resolution:					
Person Contacted:			Date/	Time:	Contacted By:
Comments/ Resolution:					
				· · · · · · · · · · · · · · · · · · ·	······································
A check in this box indicates that	additional	infor	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.

-

	Pace	Anal	vtical °					Ρ	ace	Gre	ensk	ourg	Lab	o -Sa	mple	e Co	ntai	ner	Cou	nt									
/ Client Site	603	394	593	/ 2	ver	ay K	ansa	ns (Len h	ral	.T	ЛC	,						Profi Note	ile Nu is	ımbei		77	46					
Sample Line Item	Matrix	AG1H	AG1S	AG1T	AG2U	AG3S	AG3U		AG5T	1	BG2U	BP1N	BP1U	BP2S	BP2U	BP3C	BP3N	BP3S	BP3U	Sedd	GCUB	H65V	VG9T	VG9U	VOAK	WGFU	WGKU	ZPLC	
1	WT	•	 									J																	
2		;										2																	
4												2							1										
5	wΤ											2																	
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7 8																				IO #		304	47	30	40	 			
9 10																			PI	1: CF	1		Due	Dat	e: 0:	3/25/	22		
11																				-1-11			-					.:	
12 Containe		1																	Γ										

BP2U 500mL plastic unpreserved

untainer Goues

Page 41 of 43

	Glas		
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 Thiosu
GJN	1 Gallon Jug	VG9H	40mL clear VOA vial HCl
AG1S	1L amber glass H2SO4	JGFU	4oz amber wide jar
AG1H	1L amber glass HCI	WGFU	4oz wide jar unpreserved
AG1T	1L amber glass Na Thiosulfate	BG2U	500mL clear glass unpreserved
BG1U	1L clear glass unpreserved	AG2U	500mL amber glass unpreserve
AG3S	250mL amber glass H2SO4	WGKU	8oz wide jar unpreserved
AG3U	250mL amber glass unpreserved		
	:	:	
	:		

	P	astic /	Misc.	
GCUB	1 Gallon Cubitainer	EZI	5g Encore	
12GN	1/2 Gallon Cubitainer	VOAK	Kit for Volatile Solid	
SP5T	120mL Coliform Na Thiosulfate	1	Wipe/Swab	
BP1N	1L plastic HNO3	ZPLC	Ziploc Bag	
BP1U	1L plastic unpreserved			
BP3S	250mL plastic H2SO4	WT	Water	
BP3N	250mL plastic HNO3	SL	Solid	
BP3U	250mL plastic unpreserved	OL	Non-aqueous liquid	
BP3C	250ml plastic NAOH	WP	Wipe	
BP2S	500mL plastic H2SO4	E	······································	

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

	<u>/.</u>	Analyst must manually Enter An Fields Highlighted in Te		Ra-226	www.pacelabs.com Test:
MS/MSD 2	MSD 1	Sample Matrix Spike Control Assessment		RPS	Analyst:
		Sample Collection Date:		3/25/2022	Date:
		Sample I.D.		65631	Batch ID:
		Sample I.D. Sample MS I.D.		DW	Matrix:
		Sample MSD I.D.			
		Spike I.D.:	1	****	Method Blank Assessment
		MS/MSD Decay Corrected Spike Concentration (pCi/mL):		2374606	MB Sample ID
		Spike Volume Used in MS (mL):		0.104	MB concentration:
		Spike Volume Used in MSD (mL):		0.397	M/B Counting Uncertainty:
		MS Aliquot (L, g, F):		0.733	MB MDC:
		MS Target Conc.(pCi/L, g, F):		0.51	MB Numerical Performance Indicator:
		MSD Aliquot (L, q, F):		N/A	MB Status vs Numerical Indicator:
		MSD Target Conc. (pCi/L, g, F):		Pass	MB Status vs. MDC:
		MS Spike Uncertainty (calculated):	1		
		MSD Spike Uncertainty (calculated):	Y	CSD (Y or N)?	Laboratory Control Sample Assessment
		Sample Result:	LCSD65631	LCS65631	-
		Sample Result Counting Uncertainty (pCi/L, g, F):	3/31/2022	3/31/2022	Count Date:
		Sample Matrix Spike Result:	21-040	21-040	Spike I.D.:
		Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	32.433	32.433	Spike Concentration (pCi/mL):
		Sample Matrix Spike Duplicate Result:	0.10	0.10	Volume Used (mL):
		Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.660	0.651	Aliquot Volume (L, g, F):
		MS Numerical Performance Indicator:	4.917	4.980	Target Conc. (pCi/L, g, F):
		MSD Numerical Performance Indicator:	0.231	0.234	Uncertainty (Calculated):
		MS Percent Recovery:	3.632	4.630	Result (pCi/L, g, F):
		MSD Percent Recovery:	0.868	1.036	LCS/LCSD Counting Uncertainty (pCi/L, g, F):
		MS Status vs Numerical Indicator:	-2.80	-0.65	Numerical Performance Indicator:
		MSD Status vs Numerical Indicator:	73.87%	92.98%	Percent Recovery:
	[MS Status vs Recovery:	N/A	N/A	Status vs Numerical Indicator:
		MSD Status vs Recovery:	Pass	Pass	Status vs Recovery:
		MS/MSD Upper % Recovery Limits:	135%	135%	Upper % Recovery Limits:
		MS/MSD Lower % Recovery Limits:	73%	73%	Lower % Recovery Limits:
	······				Duplicate Sample Assessment
		Matrix Spike/Matrix Spike Duplicate Sample Assessment			Suproate Sample Assessment
		Sample I.D.	Enter Duplicate	LCS65631	Sample I.D.:
		Sample I.D. Sample MS I.D.	sample IDs if	LCSD65631	Duplicate Sample I.D.
	1		other than		Sample Result (pCi/L, g, F):
			LCS/LCSD in	1.036	
			the space below.		Sample Duplicate Result (pCi/L, g, F):
	1			0.868	Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):
				NO	Are sample and/or duplicate results below RL?
				1.447	Duplicate Numerical Performance Indicator:
	1				
	1		I		
	1				Duplicate Status vs RPD:
				32%	% RPD Limit:
		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:	LCS/LCSD in	3.632 0.868 NO 1.447 22.91% N/A Pass	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: Duplicate Status vs RPD:

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

Comments:

Pace Analytical"

CH3B1172

Ra-226_65631_W.xls Ra-226 (R085-8 01Apr2019).xis

Ra-226 NELAC QC Printed: 3/31/2022 1:55 PM

SLC 3/31/2022

Page 42 of 43

PACE Analytical Services Ra-228 Analysis

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

www.pacelabs.com Test:	Ra-228		Analyst must manually Enter All Fields Highlighted in	Tenow.	
Analyst:	JSM		Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Date:	3/26/2022		Sample Collection Date:		MOMOD 2
Worklist:	65632		Sample I.D.		
Matrix:	WI		Sample MS I.D.		
			Sample MSD I.D.		
Method Blank Assessment]	Spike I.D.:	a an a' Mhàint	
MB Sample ID	2374610	1	MS/MSD Decay Corrected Spike Concentration (pCi/mL):		
MB concentration:	0.365		Spike Volume Used in MS (mL):	1	
M/B 2 Sigma CSU:	0.256		Spike Volume Used in MSD (mL):		
MB MDC:	0.481		MS Aliquot (L, g, F):		
MB Numerical Performance Indicator:	2.80		MS Target Conc.(pCi/L, g, F):		
MB Status vs Numerical Indicator:	Warning		MSD Aliquot (L, g, F):		
MB Status vs. MDC:	Pass]	MSD Target Conc. (pCi/L, g, F):		
Dehenders Cardes I Samely Association	1.000 (r		MS Spike Uncertainty (calculated):		
Laboratory Control Sample Assessment	LCSD (Y or N)?	Y	MSD Spike Uncertainty (calculated):		
Court Date:	LCS65632	LCSD65632	Sample Result:		
Count Date: Spike I.D.:	3/30/2022 22-016	3/30/2022	Sample Result 2 Sigma CSU (pCi/L, g, F):		
Decay Corrected Spike Concentration (pCi/mL):	36.290	22-016 36.290	Sample Matrix Spike Result:		
Volume Used (mL):	0.10	0.10	Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):		
Aliquot Volume (L, g, F):	0.815	0.807	Sample Matrix Spike Duplicate Result:		
Target Conc. (pCi/L, g, F):	4.452	4.496	Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): MS Numerical Performance Indicator:		
Uncertainty (Calculated):	0.218	0.220	MSD Numerical Performance Indicator:		
Result (pCi/L, g, F):	5.033	4.692	MSD Numerical Performance Indicator. MS Percent Recovery:		
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.088	1.023	MSD Percent Recovery:		
Numerical Performance Indicator:	1.03	0.37	MS Status vs Numerical Indicator:		
Percent Recovery:	113.05%	104.37%	MSD Status vs Numerical Indicator:		
Status vs Numerical Indicator:	N/A	N/A	MS Status vs Recovery:		
Status vs Recovery:	Pass	Pass	MSD Status vs Recovery:		
Upper % Recovery Limits:	135%	135%	MS/MSD Upper % Recovery Limits:		
Lower % Recovery Limits:	60%	60%	MS/MSD Lower % Recovery Limits:		
Durallia to Describe Account					
Duplicate Sample Assessment			Matrix Spike/Matrix Spike Duplicate Sample Assessment		
Sample I.D.:	LCS65632	Enter Duplicate	Complete D		
Duplicate Sample I.D.:	LCS05032	sample IDs if	Sample I.D. Sample MS I.D.		
Sample Result (pCi/L, g, F):	5.033	other than	Sample MS I.D. Sample MSD I.D.		
Sample Result 2 Sigma CSU (pCi/L, g, F):	1.088	LCS/LCSD in	Sample MSD 1.D. Sample Matrix Spike Result:		
Sample Duplicate Result (pCi/L, g, F):	4.692	the space below.	Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):		
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.023		Sample Matrix Spike Duplicate Result:		
Are sample and/or duplicate results below RL?	NO		Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):		
Duplicate Numerical Performance Indicator:	0.448	den geftigter gan	Duplicate Numerical Performance Indicator:		
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	7.99%	and the second second	(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:		
Duplicate Status vs Numerical Indicator:	Pass		MS/ MSD Duplicate Status vs Numerical Indicator:		
Duplicate Status vs RPD:	Pass		MS/ MSD Duplicate Status vs RPD:		
% RPD Limit:	36%		% RPD Limit:		

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

Comments:

Pace Analytical"

Mu3/31/22

Gr112133

ATTACHMENT 2-2 June 2022 Annual Assessment Sampling Event Laboratory Analytical Report



Pace Analytical Services, LLC 225 Industrial Park RD Beaver, WV 25813 (800)999-0105

August 01, 2022

LAURA HINES EVERGY 818 Kansas Ave. Topeka, KS 66612

RE: Project: TEC 322 LF CCR Pace Project No.: 30497995

Dear LAURA HINES:

Enclosed are the analytical results for sample(s) received by the laboratory on June 15, 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 7/19/22 report. This project was revised on 8/1/22 in order to remove an incorrect comment.

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

Sincerely,

Richard Shill

Skyler C. Richmond skyler.richmond@pacelabs.com (724)850-5600 Project Manager

Enclosures

cc: DANIELLE OBERBROECKLING, HALEY & ALDRICH INC. EVERGY ACCOUNTS PAYABLE, EVERGY





Pace Analytical Services, LLC 225 Industrial Park RD Beaver, WV 25813 (800)999-0105

CERTIFICATIONS

Project: TEC 322 LF CCR Pace Project No.: 30497995

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: TEC 322 LF CCR

Pace Project No.: 30497995

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30497995001	MW-1 - 06/14/22	Water	06/14/22 12:10	06/15/22 13:30
30497995002	MW-4 - 06/14/22	Water	06/14/22 14:45	06/15/22 13:30
30497995003	MW-5 - 06/14/22	Water	06/14/22 13:30	06/15/22 13:30
30497995004	MW-6 - 06/14/22	Water	06/14/22 13:00	06/15/22 13:30
30497995005	DUP - 322LF - 06/14/22	Water	06/14/22 12:10	06/15/22 13:30



SAMPLE ANALYTE COUNT

Project: TEC 322 LF CCR Pace Project No.: 30497995

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30497995001	MW-1 - 06/14/22	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30497995002	MW-4 - 06/14/22	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30497995003	MW-5 - 06/14/22	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30497995004	MW-6 - 06/14/22	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30497995005	DUP - 322LF - 06/14/22	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: TEC 322 LF CCR

Pace Project No.: 30497995

Sample: MW-1 - 06/14/22 PWS:	Lab ID: 30497995 Site ID:	001 Collected: 06/14/22 12:10 Sample Type:	Received:	06/15/22 13:30	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Servi	ces - Greensburg				
Radium-226		0.742 ± 0.441 (0.420) C:NA T:94%	pCi/L	07/15/22 13:04	13982-63-3	
	Pace Analytical Servi	ces - Greensburg				
Radium-228		0.335 ± 0.374 (0.781) C:73% T:92%	pCi/L	07/11/22 16:37	15262-20-1	
	Pace Analytical Servi	ces - Greensburg				
Total Radium	Total Radium Calculation	1.08 ± 0.815 (1.20)	pCi/L	07/15/22 18:31	7440-14-4	
Sample: MW-4 - 06/14/22 PWS:	Lab ID: 30497995 Site ID:	002 Collected: 06/14/22 14:45 Sample Type:	Received:	06/15/22 13:30	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Servi	ces - Greensburg				
Radium-226		0.120 ± 0.439 (0.843) C:NA T:96%	pCi/L	07/15/22 13:04	13982-63-3	
	Pace Analytical Servi	ces - Greensburg				
Radium-228		1.09 ± 0.451 (0.676) C:72% T:90%	pCi/L	07/11/22 16:37	15262-20-1	
	Pace Analytical Servi	ces - Greensburg				
Total Radium	Total Radium Calculation	1.21 ± 0.890 (1.52)	pCi/L	07/15/22 18:31	7440-14-4	
Sample: MW-5 - 06/14/22 PWS:	Lab ID: 30497995 Site ID:	003 Collected: 06/14/22 13:30 Sample Type:	Received:	06/15/22 13:30	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Servi	ces - Greensburg				
Radium-226		0.172 ± 0.463 (0.860) C:NA T:93%	pCi/L	07/15/22 13:04	13982-63-3	
	Pace Analytical Servi	ces - Greensburg				
Radium-228		0.600 ± 0.379 (0.695) C:71% T:94%	pCi/L	07/11/22 16:37	15262-20-1	
	Pace Analytical Servi	ces - Greensburg				
Total Radium	Total Radium Calculation	0.772 ± 0.842 (1.56)	pCi/L	07/15/22 18:31	7440-14-4	



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: TEC 322 LF CCR

Pace Project No.: 30497995

Sample: MW-6 - 06/14/22 PWS:	Lab ID: 30497999 Site ID:	Collected: 06/14/22 13:00 Sample Type:	Received:	06/15/22 13:30 N	Aatrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Serv	vices - Greensburg				
Radium-226	EPA 903.1	-0.0651 ± 0.556 (1.13) C:NA T:92%	pCi/L	07/15/22 13:04	13982-63-3	
	Pace Analytical Serv	vices - Greensburg				
Radium-228	EPA 904.0	0.289 ± 0.356 (0.753) C:73% T:95%	pCi/L	07/11/22 16:37	15262-20-1	
	Pace Analytical Serv	vices - Greensburg				
Total Radium	Total Radium Calculation	0.289 ± 0.912 (1.88)	pCi/L	07/15/22 18:31	7440-14-4	
Sample: DUP - 322LF - 06/14/22 PWS:	Lab ID: 3049799	5005 Collected: 06/14/22 12:10 Sample Type:	Received:	06/15/22 13:30 N	Natrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Falameters			UTIIIS			Quai
	Pace Analytical Serv	U				
Radium-226	EPA 903.1	0.154 ± 0.364 (0.674) C:NA T:99%	pCi/L	07/15/22 13:04	13982-63-3	
	Pace Analytical Serv	vices - Greensburg				
Radium-228	EPA 904.0	0.221 ± 0.449 (0.989) C:75% T:84%	pCi/L	07/11/22 16:37	15262-20-1	
	Pace Analytical Serv	vices - Greensburg				
Total Radium	Total Radium Calculation	0.375 ± 0.813 (1.66)	pCi/L	07/15/22 18:31	7440-14-4	



QUALITY CONTROL - RADIOCHEMISTRY

Project:	TEC 322 LF CCR				
Pace Project No.:	30497995				
QC Batch:	514036	Analysis Method:	EPA 904.0		
QC Batch Method:	EPA 904.0	Analysis Description:	904.0 Radium 22	28	
		Laboratory:	Pace Analytical S	Services - Greensbur	g
Associated Lab Sa	mples: 30497995001, 30497	7995002, 30497995003, 3049799500	04, 30497995005		
METHOD BLANK:	2491310	Matrix: Water			
Associated Lab Sa	mples: 30497995001, 30497	7995002, 30497995003, 3049799500	04, 30497995005		
Para	meter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.191 ± 0.	323 (0.703) C:72% T:92%	pCi/L	07/11/22 16:39	

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:	TEC 322 LF CCR				
Pace Project No.:	30497995				
QC Batch:	514034	Analysis Method:	EPA 903.1		
QC Batch Method:	EPA 903.1	Analysis Description:	903.1 Radium-22	26	
		Laboratory:	Pace Analytical S	Services - Greensbur	g
Associated Lab Sa	mples: 30497995001, 30497	7995002, 30497995003, 3049799500	04, 30497995005		
METHOD BLANK:	2491306	Matrix: Water			
Associated Lab Sa	mples: 30497995001, 30497	7995002, 30497995003, 3049799500	04, 30497995005		
Para	meter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	$\frac{1}{0.000 \pm 0.000}$	186 (0.301) C:NA T:103%	pCi/L	07/15/22 12:25	

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: TEC 322 LF CCR

Pace Project No.: 30497995

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

Act - Activity

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

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

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

Pace

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.

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ITEM #	(A-Z, 0-9 / , -) Air Other Sample Ids must be unique Tissue	AR OT TS	MATRIX CODE SAMPLE TYPE	DATE	TIME	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved H2SO4	HN03	HCI	NaOH	Na2S203	Mercano	Analvses	Radium 226 + total Radium	Radium 228	QAQC Sheets								Residual Ch			
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2	MW-4-06/14/22		WTG				1445	-	2		2						×	×	×									$\infty \dot{2}$		
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Pittsburgh Lab Sample Condi	tion	Upo	n Re	eceipt		
Pace Analytical Client Name: {	vere	34-	Ka	nsas Central	Project #	Ξ
Courier: Fed Ex UPS USPS Clier	it 🗌	Comm	ercial	Pace Other	Label A	1
Tracking #: 5645 8494 5023		,			LIMS Login VPR	1
Custody Seal on Cooler/Box Present: yes		no	Seals	s intact: 🔲 yes 🔲	no	
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Cooler Temperature Observed Temp		۰c	Corr	ection Factor:	°C Final Temp:	
Temp should be above freezing to 6°C						-
		1	1	pH paper Lot#	Date and Initials of person examining contents: <u>() </u>	
Comments:	Yes	No	N/A	1004011		_
Chain of Custody Present:		/		1.	•	-
Chain of Custody Filled Out:				2.		-
Chain of Custody Relinquished:	$ V\rangle$			3.		-
Sampler Name & Signature on COC:	$\downarrow \checkmark$	<u> </u>		4.		
Sample Labels match COC:			<u> </u>	5		
Includes date/time/ID Matrix:	WJ	T	<u> </u>			
Samples Arrived within Hold Time:		- <i>,</i> -		6.		- ₽₽!
Short Hold Time Analysis (<72hr remaining):		$ $ \checkmark	<u> </u>	7.		
Rush Turn Around Time Requested:			<u> </u>	8.		
Sufficient Volume:				9.		B
Correct Containers Used:	$\mid \checkmark$			10.		
-Pace Containers Used:	\downarrow					BV-EVERGY
Containers Intact:	$ \checkmark$			11.		
Orthophosphate field filtered	-		V	12.		
Hex Cr Aqueous sample field filtered			V	13.		
Organic Samples checked for dechlorination:				14.		
Filtered volume received for Dissolved tests All containers have been checked for preservation.				15.		3 (J
exceptions: VOA, coliform, TOC, O&G, Phenolics, Non-aqueous matrix	Radon	,		16. pH22		07/22
All containers meet method preservation requirements.	\checkmark	ſ		Initial when	Date/time of preservation	
	<u></u>			Lot # of added	• · · · · · · · · · · · · · · · · · · ·	
			1	preservative		-
Headspace in VOA Vials (>6mm):			$\overline{}$	17.		
Trip Blank Present:				18.		
Trip Blank Custody Seals Present Rad Samples Screened < 0.5 mrem/hr			\checkmark	Initial when	Survey Meter	-
				completed:	Date: (1-22-22 SN:)563	
Client Notification/ Resolution:						
Person Contacted:			Date/	Time:	Contacted By:	-
Comments/ Resolution:						-
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						•
A check in this box indicates that addi	tional	infor	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.

J:\QAQC\17_Master\Document Management\Sample Mgt\Mastercontrol\ENV-FRM-GBUR-0088 00 Sample Condition Upon Receipt-Pittsburgage 11 of 14

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Sample Line Item	Matrix	AG1H	AG1S	AG1T	AG2U	AG3S	AG3U	AG5U	AG5T	BG1U	BG2U	BP1N	BP1U	BP2S	BP2U	BP3C	BP3N	BP3S	BP3U	DG9S	GCUB	VG9H	VG9T	VG9U	VOAK	WGFU	WGKU	ZPLC	
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Gla	ass	
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	e 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 HCI	WGFU	4oz wide jar unpreserved
AG1T 1L amber glass Na Thiosulfate	BG2U	500mL clear glass unpreserved
BG1U 1L clear glass unpreserved	AG2U	500mL amber glass unpreserved
AG3S 250mL amber glass H2SO4	WGKU	
AG3U 250mL amber glass unpreserved		
AG3S 250mL amber glass H2SO4		

Page 12 of 14

1

	P	8
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	

Ρ	las	stic /	Misc.
		EZI	5g Encore
		VOAK	Kit for Volatile Solid
fate		1	Wipe/Swab
		ZPLC	Ziploc Bag

WT	Water
SL	Solid
OL	Non-aqueous liquid
WP	Wipe

ENV-FRM-GRUR-0072 00 29Dec2020

PACE Analytical Services Ra-226 Analysis

Quality Co	ontrol Sal	inhie i ein	official of the second s		
8)		А	nalyst Must Manually Enter All Fields Highlighted in `	Yellow.	
Pace Analytical"				MS/MSD 1	MS/MSD 2
www.pacelabs.com Test:	Ra-226	5	ample Matrix Spike Control Assessment	MS/MSD I	
Analyst:	SLC	5	Sample Concerten Parter		
Date:	7/5/2022		Sample I.D.		
Batch ID:	67450		Sample MS I.D.		
Matrix:	DW		Sample MSD I.D.		
Maux.	2		Spike I.D.:		
		1	MS/MSD Decay Corrected Spike Concentration (pCi/mL):		Contract of the international statement
ethod Blank Assessment	2491306		MS/MSD Decay Corrected Spike Concentration (P Spike Volume Used in MS (mL):		
MB Sample 18	0.000		Spike Volume Used in MSD (mL):		
MB concentration:	0.113	1	Spike Volume Osed in MCD (iii.) MS Aliquot (L, g, F):		
M/B Counting Uncertainty:	0.301	1	MS Target Conc.(pCi/L, g, F):		
MB MDC:	0.00		MS Target Conc. (point, gr.) MSD Aliquot (L, g, F):		
MB Numerical Performance Indicator:			MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F):		
MB Status vs Numerical Indicator:	N/A		MSD Target Conc. (pCi/L, g, r).		
MB Status vs. MDC:	Pass	1	MS Spike Uncertainty (calculated):		
	LUC I	Y	MSD Spike Uncertainty (calculated):		
aboratory Control Sample Assessment	LCSD (Y or N)?	LCSD67450	Sample Result:		
L	LCS67450	7/15/2022	Sample Result Counting Uncertainty (pCi/L, g, F):		
Count Date:	7/15/2022		Sample Matrix Spike Result		
Spike I.D.:	21-040	21-040	Matrix Spike Result Counting Uncertainty (pCi/L, g, F):		
Spike Concentration (pCi/mL):	32.429	32.429			
Volume Used (mL):	0.10	0.10	Deput Counting Lincertainty (DCI/L, g, F).		
Aliquot Volume (L, g, F):	0.676	0.653			
Target Conc. (pCi/L, g, F):	4.798	4.969	MSD Numerical Performance Indicator:		
Uncertainty (Calculated):	0.226	0.234	MS Percent Recovery:		
Result (pCi/L, g, F):	4.678	4.619	MSD Percent Recovery:		
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.954	0.981	MS Status vs Numerical Indicator:		
LCS/LCSD Counting Uncertainty (point give) Numerical Performance Indicator:	-0.24	-0.68	MCD Status vs Numerical Indicator:		
Numerical Performance indicator		92.94%	MS Status vs Recovery		
Status vs Numerical Indicator		N/A	MSD Status vs Recovery	:	
Status vs Numerical Indicator		Pass	MC/MSD Linner % Recovery Limits	:	
Status vs Recovery	and the second se	135%	MS/MSD Lower % Recovery Limits	:	
Upper % Recovery Limits Lower % Recovery Limits		73%	MO/MOD LEMO		
Lower % Recovery Links			Matrix Spike/Matrix Spike Duplicate Sample Assessment		
Duplicate Sample Assessment		1 1	Sample I.D	D.	
Sample I.D	LCS67450	Enter Duplicate	Sample MS I.E	D.	
Sample I.D		sample IDs if	Sample MSD I.E	D.	
Duplicate Sample I.C		other than	Sample Matrix Spike Resul	lt:	1
Sample Result (pCi/L, g, F		LCS/LCSD in	Deput Counting Uncertainty (pCi/L, g, F):	
Sample Result Counting Uncertainty (pCi/L, g, F		the space below.			1
Sample Duplicate Result (DU/L, 9, 1	/.		- I Deput Counting Uncertainty (DCI/L, g, F		
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F			Matrix Spike Duplicate Result Counting Chockang and Duplicate Numerical Performance Indicate	pr:	
			Duplicate Numerical Fonomianos meters	D:	
Duplicate Numerical Performance Indicato	0.000	a constant and a second	(Based on the Percent Recoveries) MS/ MSD Duplicate RP	or:	
LOCAL COD Porcent Recoveries) Duplicate RP	D: 4.7970				
			MS/ MSD Duplicate Status to Remulticate Status vs RP MS/ MSD Duplicate Status vs RP % RPD Lim	0.1	
Duplicate Status VS RP	D.] 1 435		% RPD Lin	11.4	
% RPD Lin	iit: 32%				

Quality Control Sample Performance Assessment

% RPD Limit: 32% ## Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the RL.

Comments:

SLL 7/15/ Page 13 of 14

Ra-226 NELAC QC

CM 15122

Ra-226_67450W.xls Ra-226 (R085-8 01Apr2019).xls

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

/ abbr sharytioar			Analyst must manually Enter An Tielus riighighteu in		
www.pacelabs.com Test:	Ra-228				
Analyst:	VAL		Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Date:	7/6/2022		Sample Collection Date:		
Worklist:	67451		Sample I.D.		
Matrix:	VV I		Sample MS I.D.		
		-	Sample MSD I.D.		
Method Blank Assessment			Spike I.D.:		
MB Sample ID	2491310		MS/MSD Decay Corrected Spike Concentration (pCi/mL):		
MB concentration:	0,191		Spike Volume Used in MS (mL):		
M/B 2 Sigma CSU:	0.323		Spike Volume Used in MSD (mL):		
MB MDC:	0.703		MS Aliquot (L, g, F):		
MB Numerical Performance Indicator:	1.16		MS Target Conc.(pCi/L, g, F):		
	Pass		MSD Aliquot (L, g, F):		
MB Status vs Numerical Indicator:			MSD Target Conc. (pCi/L, g, F):		
MB Status vs. MDC:	Pass	1	MSD Farger Serie, (polic, g, r). MS Spike Uncertainty (calculated):		
	000 04				
Laboratory Control Sample Assessment	LCSD (Y or N)?	Y	MSD Spike Uncertainty (calculated):		
	LCS67451	LCSD67451	Sample Result:		
Count Date:	7/11/2022	7/11/2022	Sample Result 2 Sigma CSU (pCi/L, g, F):		
Spike I.D.:	22-016	22-016	Sample Matrix Spike Result:		
Decay Corrected Spike Concentration (pCi/mL):	35.075	35.075	Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):		
Volume Used (mL):	0.10	0.10	Sample Matrix Spike Duplicate Result:		
Aliguot Volume (L, g, F):	0.820	0.805	Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):		
Target Conc. (pCi/L, g, F):	4.279	4.357	MS Numerical Performance Indicator:		
	0.210	0.214	MSD Numerical Performance Indicator:		
Uncertainty (Calculated):		3.576	MSD Humenour Chormanos malouer: MS Percent Recovery:		
Result (pCi/L, g, F):	3.203		MSD Percent Recovery:		
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.812	0.889	MSD Fercent Recovery. MS Status vs Numerical Indicator:		
Numerical Performance Indicator:	-2.51	-1.68			
Percent Recovery:	74.86%	82.06%	MSD Status vs Numerical Indicator:		
Status vs Numerical Indicator:	N/A	N/A	MS Status vs Recovery:		
Status vs Recovery:	Pass	Pass	MSD Status vs Recovery:		
Upper % Recovery Limits:	135%	135%	MS/MSD Upper % Recovery Limits:		
Lower % Recovery Limits:	60%	60%	MS/MSD Lower % Recovery Limits:		
Duplicate Sample Assessment		T	Matrix Spike/Matrix Spike Duplicate Sample Assessment		
Sample I.D.:	LCS67451	Enter Duplicate	Sample I.D.		
Duplicate Sample I.D.	LCSD67451	sample IDs if	Sample MS I.D.		
Sample Result (pCi/L, g, F):	3.203	other than	Sample MSD I.D.		
Sample Result 2 Sigma CSU (pCi/L, g, F).	0.812	LCS/LCSD in	Sample Matrix Spike Result:		
	3,576	the space below.	Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):		
Sample Duplicate Result (pCi/L, g, F):		ule space below.	Sample Matrix Spike Result 2 Signa COO (powe, g, r).		
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.889		Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):		
Are sample and/or duplicate results below RL?	NO				
Duplicate Numerical Performance Indicator:	-0.607		Duplicate Numerical Performance Indicator:		
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	9.19%		(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:		
Duplicate Status vs Numerical Indicator:	Pass		MS/ MSD Duplicate Status vs Numerical Indicator:		
Duplicate Status vs RPD:	Pass		MS/ MSD Duplicate Status vs RPD:		
% RPD Limit:	36%		% RPD Limit:		
		-			

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

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Comments:

r "Pace Analytical"

mann Page 14 of 14



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

June 28, 2022

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

RE: Project: TEC 322 LF ANNUAL Pace Project No.: 60403246

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 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: TEC 322 LF ANNUAL

Pace Project No.: 60403246

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: TEC 322 LF ANNUAL

Pace Project No.: 60403246

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60403246001	MW-1-061422	Water	06/14/22 12:10	06/14/22 17:50
60403246002	MW-4-061422	Water	06/14/22 14:43	06/14/22 17:50
60403246003	MW-5-061422	Water	06/14/22 13:30	06/14/22 17:50
60403246004	MW-6-061422	Water	06/14/22 13:00	06/14/22 17:50
60403246005	DUP-322LF-061422	Water	06/14/22 12:10	06/14/22 17:50



SAMPLE ANALYTE COUNT

Project: TEC 322 LF ANNUAL

Pace Project No.: 60403246

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60403246001		EPA 200.7	MRV	4	PASI-K
		EPA 6010	MRV	1	PASI-K
		EPA 200.8	JGP	7	PASI-K
		EPA 245.1	ALH	1	PASI-K
		EPA 300.0	KB	1	PASI-K
0403246002	MW-4-061422	EPA 200.7	MRV	4	PASI-K
		EPA 6010	MRV	1	PASI-K
		EPA 200.8	JGP	7	PASI-K
		EPA 245.1	ALH	1	PASI-K
		EPA 300.0	KB	1	PASI-K
0403246003	MW-5-061422	EPA 200.7	MRV	4	PASI-K
		EPA 6010	MRV	1	PASI-K
	EPA 200.8	JGP	7	PASI-K	
		EPA 245.1	ALH	1	PASI-K
		EPA 300.0	KB	1	PASI-K
0403246004	MW-6-061422	EPA 200.7	MRV	4	PASI-K
		EPA 6010	MRV	1	PASI-K
		EPA 200.8	JGP	7	PASI-K
		EPA 245.1	ALH	1	PASI-K
		EPA 300.0	KB	1	PASI-K
0403246005	DUP-322LF-061422	EPA 200.7	MRV	4	PASI-K
		EPA 6010	MRV	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: TEC 322 LF ANNUAL

Pace Project No.: 60403246

Method: EPA 200.7

Description:200.7 Metals, TotalClient:Evergy Kansas Central, Inc.Date:June 28, 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.

Additional Comments:



Project: TEC 322 LF ANNUAL

Pace Project No.: 60403246

Method: EPA 6010

Description:6010 MET ICPClient:Evergy Kansas Central, Inc.Date:June 28, 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.

Additional Comments:



Project: TEC 322 LF ANNUAL

Pace Project No.: 60403246

Method: EPA 200.8

Description:200.8 MET ICPMSClient:Evergy Kansas Central, Inc.Date:June 28, 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.

Additional Comments:



Project: TEC 322 LF ANNUAL

Pace Project No.: 60403246

Method: EPA 245.1

Description:245.1 MercuryClient:Evergy Kansas Central, Inc.Date:June 28, 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.

Additional Comments:



Project: TEC 322 LF ANNUAL

Pace Project No.: 60403246

Method: EPA 300.0

Description:300.0 IC Anions 28 DaysClient:Evergy Kansas Central, Inc.Date:June 28, 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.



ANALYTICAL RESULTS

Project: TEC 322 LF ANNUAL

Pace Project No.: 60403246

Sample: MW-1-061422	Lab ID: 60	403246001	Collected: 06/14/2	2 12:10) Received: 06	6/14/22 17:50 N	latrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual		
200.7 Metals, Total	Analytical Me	thod: EPA 20	00.7 Preparation Met	nod: EF	PA 200.7					
	Pace Analytical Services - Kansas City									
Barium, Total Recoverable	0.068	mg/L	0.0050	1	06/20/22 11:30	06/27/22 18:31	7440-39-3			
Beryllium, Total Recoverable	<0.0010	mg/L	0.0010	1	06/20/22 11:30	06/27/22 18:31	7440-41-7			
Chromium, Total Recoverable	<0.0050	mg/L	0.0050	1	06/20/22 11:30	06/27/22 18:31	7440-47-3			
Lead, Total Recoverable	<0.010	mg/L	0.010	1	06/20/22 11:30	06/27/22 18:31	7439-92-1			
6010 MET ICP	Analytical Me	thod: EPA 60	010 Preparation Meth	od: EP	A 3010					
	Pace Analytic	al Services ·	Kansas City							
Lithium, Total Recoverable	<0.010	mg/L	0.010	1	06/20/22 11:30	06/27/22 18:53	7439-93-2			
200.8 MET ICPMS	Analytical Me	thod: EPA 20	0.8 Preparation Met	nod: EF	PA 200.8					
	Pace Analytic	al Services ·	Kansas City							
Antimony, Total Recoverable	<0.0010	mg/L	0.0010	1	06/20/22 11:30	06/25/22 15:37	7440-36-0			
Arsenic, Total Recoverable	<0.0010	mg/L	0.0010	1	06/20/22 11:30	06/25/22 15:37	7440-38-2			
Cadmium, Total Recoverable	<0.00050	mg/L	0.00050	1	06/20/22 11:30	06/25/22 15:37	7440-43-9			
Cobalt, Total Recoverable	<0.0010	mg/L	0.0010	1	06/20/22 11:30	06/25/22 15:37	7440-48-4			
Molybdenum, Total Recoverable	<0.0010	mg/L	0.0010	1		06/25/22 15:37				
Selenium, Total Recoverable	<0.0010	mg/L	0.0010	1		06/25/22 15:37				
Thallium, Total Recoverable	<0.0010	mg/L	0.0010	1	06/20/22 11:30	06/25/22 15:37	7440-28-0			
245.1 Mercury	Analytical Me	thod: EPA 24	15.1 Preparation Met	nod: EF	PA 245.1					
	Pace Analytic	al Services ·	Kansas City							
Mercury	<0.20	ug/L	0.20	1	06/24/22 12:49	06/27/22 10:38	7439-97-6			
300.0 IC Anions 28 Days	Analytical Me	thod: EPA 30	0.0							
-	Pace Analytic	al Services -	Kansas City							
Fluoride	<0.20	mg/L	0.20	1		06/22/22 17:05	16984-48-8			



ANALYTICAL RESULTS

Project: TEC 322 LF ANNUAL

Pace Project No.: 60403246

Sample: MW-4-061422	Lab ID: 6040	03246002	Collected: 06/14/2	2 14:43	3 Received: 06	6/14/22 17:50 N	latrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual		
200.7 Metals, Total	Analytical Meth	od: EPA 20	00.7 Preparation Met	hod: El	PA 200.7					
	Pace Analytical Services - Kansas City									
Barium, Total Recoverable	0.086	mg/L	0.0050	1	06/20/22 11:30	06/27/22 18:37	7440-39-3			
Beryllium, Total Recoverable	<0.0010	mg/L	0.0010	1	06/20/22 11:30	06/27/22 18:37	7440-41-7			
Chromium, Total Recoverable	<0.0050	mg/L	0.0050	1	06/20/22 11:30	06/27/22 18:37	7440-47-3			
Lead, Total Recoverable	<0.010	mg/L	0.010	1	06/20/22 11:30	06/27/22 18:37	7439-92-1			
6010 MET ICP	Analytical Meth	od: EPA 60	010 Preparation Meth	nod: EP	A 3010					
	Pace Analytica									
Lithium, Total Recoverable	<0.010	mg/L	0.010	1	06/20/22 11:30	06/27/22 18:59	7439-93-2			
200.8 MET ICPMS	Analytical Meth	od: EPA 20	0.8 Preparation Met	hod: El	PA 200.8					
	Pace Analytica	I Services -	Kansas City							
Antimony, Total Recoverable	<0.0010	mg/L	0.0010	1	06/20/22 11:30	06/25/22 15:25	7440-36-0			
Arsenic, Total Recoverable	<0.0010	mg/L	0.0010	1	06/20/22 11:30	06/25/22 15:25	7440-38-2			
Cadmium, Total Recoverable	<0.00050	mg/L	0.00050	1	06/20/22 11:30	06/25/22 15:25	7440-43-9			
Cobalt, Total Recoverable	<0.0010	mg/L	0.0010	1	06/20/22 11:30	06/25/22 15:25	7440-48-4			
Molybdenum, Total Recoverable	<0.0010	mg/L	0.0010	1		06/25/22 15:25				
Selenium, Total Recoverable	<0.0010	mg/L	0.0010	1		06/25/22 15:25				
Thallium, Total Recoverable	<0.0010	mg/L	0.0010	1	06/20/22 11:30	06/25/22 15:25	7440-28-0			
245.1 Mercury	Analytical Meth	od: EPA 24	15.1 Preparation Met	hod: El	PA 245.1					
	Pace Analytica	I Services -	Kansas City							
Mercury	<0.20	ug/L	0.20	1	06/24/22 12:49	06/27/22 10:40	7439-97-6			
300.0 IC Anions 28 Days	Analytical Meth	od: EPA 30	0.0							
-	Pace Analytica	I Services -	Kansas City							
Fluoride	<0.20	mg/L	0.20	1		06/22/22 17:19	16984-48-8			



ANALYTICAL RESULTS

Project: TEC 322 LF ANNUAL

Pace Project No.: 60403246

Sample: MW-5-061422	Lab ID: 604	03246003	Collected: 06/14/2	22 13:30	D Received: 06	6/14/22 17:50 N	latrix: 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	thod: Ef	PA 200.7					
	Pace Analytical Services - Kansas City									
Barium, Total Recoverable	0.018	mg/L	0.0050	1	06/20/22 11:30	06/27/22 18:43	7440-39-3			
Beryllium, Total Recoverable	<0.0010	mg/L	0.0010	1	06/20/22 11:30	06/27/22 18:43	7440-41-7			
Chromium, Total Recoverable	<0.0050	mg/L	0.0050	1	06/20/22 11:30	06/27/22 18:43	7440-47-3			
Lead, Total Recoverable	<0.010	mg/L	0.010	1	06/20/22 11:30	06/27/22 18:43	7439-92-1			
6010 MET ICP	Analytical Met	hod: EPA 60	010 Preparation Met	hod: EP	A 3010					
	Pace Analytic	al Services -	Kansas City							
Lithium, Total Recoverable	0.014	mg/L	0.010	1	06/20/22 11:30	06/27/22 19:07	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							
Antimony, Total Recoverable	<0.0010	mg/L	0.0010	1	06/20/22 11:30	06/25/22 15:40	7440-36-0			
Arsenic, Total Recoverable	<0.0010	mg/L	0.0010	1	06/20/22 11:30	06/25/22 15:40	7440-38-2			
Cadmium, Total Recoverable	<0.00050	mg/L	0.00050	1	06/20/22 11:30	06/25/22 15:40	7440-43-9			
Cobalt, Total Recoverable	0.0012	mg/L	0.0010	1	06/20/22 11:30	06/25/22 15:40	7440-48-4			
Molybdenum, Total Recoverable	<0.0010	mg/L	0.0010	1		06/25/22 15:40				
Selenium, Total Recoverable	<0.0010	mg/L	0.0010	1		06/25/22 15:40				
Thallium, Total Recoverable	<0.0010	mg/L	0.0010	1	06/20/22 11:30	06/25/22 15:40	7440-28-0			
245.1 Mercury	Analytical Met	hod: EPA 24	5.1 Preparation Met	thod: EF	PA 245.1					
	Pace Analytic	al Services -	Kansas City							
Mercury	<0.20	ug/L	0.20	1	06/24/22 12:49	06/27/22 10:42	7439-97-6			
300.0 IC Anions 28 Days	Analytical Met	hod: EPA 30	0.0							
-	Pace Analytic	al Services -	Kansas City							
Fluoride	0.46	mg/L	0.20	1		06/22/22 17:33	16984-48-8			



Project: TEC 322 LF ANNUAL

Pace Project No.: 60403246

Sample: MW-6-061422	Lab ID: 6040	3246004	Collected: 06/14/2	2 13:00) Received: 06	6/14/22 17:50 N	latrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Meth	od: EPA 20	0.7 Preparation Met	hod: El	PA 200.7			
	Pace Analytical	Services -	Kansas City					
Barium, Total Recoverable	0.017	mg/L	0.0050	1	06/20/22 11:30	06/27/22 18:45	7440-39-3	
Beryllium, Total Recoverable	<0.0010	mg/L	0.0010	1	06/20/22 11:30	06/27/22 18:45	7440-41-7	
Chromium, Total Recoverable	<0.0050	mg/L	0.0050	1	06/20/22 11:30	06/27/22 18:45	7440-47-3	
Lead, Total Recoverable	<0.010	mg/L	0.010	1	06/20/22 11:30	06/27/22 18:45	7439-92-1	
6010 MET ICP	Analytical Meth	od: EPA 60	010 Preparation Meth	od: EP	A 3010			
	Pace Analytical	Services -	Kansas City					
Lithium, Total Recoverable	0.015	mg/L	0.010	1	06/20/22 11:30	06/27/22 19:09	7439-93-2	
200.8 MET ICPMS	Analytical Meth	od: EPA 20	0.8 Preparation Met	hod: El	PA 200.8			
	Pace Analytical	Services -	Kansas City					
Antimony, Total Recoverable	<0.0010	mg/L	0.0010	1	06/20/22 11:30	06/25/22 15:43	7440-36-0	
Arsenic, Total Recoverable	<0.0010	mg/L	0.0010	1	06/20/22 11:30	06/25/22 15:43	7440-38-2	
Cadmium, Total Recoverable	<0.00050	mg/L	0.00050	1	06/20/22 11:30	06/25/22 15:43	7440-43-9	
Cobalt, Total Recoverable	0.0022	mg/L	0.0010	1	06/20/22 11:30	06/25/22 15:43	7440-48-4	
Molybdenum, Total Recoverable	<0.0010	mg/L	0.0010	1		06/25/22 15:43		
Selenium, Total Recoverable	<0.0010	mg/L	0.0010	1		06/25/22 15:43		
Thallium, Total Recoverable	<0.0010	mg/L	0.0010	1	06/20/22 11:30	06/25/22 15:43	7440-28-0	
245.1 Mercury	Analytical Meth	od: EPA 24	15.1 Preparation Met	hod: El	PA 245.1			
-	Pace Analytical	Services -	Kansas City					
Mercury	<0.20	ug/L	0.20	1	06/24/22 12:49	06/27/22 10:45	7439-97-6	
300.0 IC Anions 28 Days	Analytical Meth	od: EPA 30	0.0					
-	Pace Analytical	Services -	Kansas City					
Fluoride	0.40	mg/L	0.20	1		06/22/22 17:46	16984-48-8	



Project: TEC 322 LF ANNUAL

Pace Project No.: 60403246

Sample: DUP-322LF-061422	Lab ID: 604	03246005	Collected: 06/14/2	2 12:10	0 Received: 06	/14/22 17:50 M	latrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Met	hod: EPA 20	00.7 Preparation Met	nod: EF	PA 200.7			
	Pace Analytica	al Services -	Kansas City					
Barium, Total Recoverable	0.063	mg/L	0.0050	1	06/20/22 11:30	06/27/22 18:47	7440-39-3	
Beryllium, Total Recoverable	<0.0010	mg/L	0.0010	1	06/20/22 11:30	06/27/22 18:47	7440-41-7	
Chromium, Total Recoverable	<0.0050	mg/L	0.0050	1	06/20/22 11:30	06/27/22 18:47	7440-47-3	
Lead, Total Recoverable	<0.010	mg/L	0.010	1	06/20/22 11:30	06/27/22 18:47	7439-92-1	
6010 MET ICP	Analytical Met	hod: EPA 60	010 Preparation Meth	od: EP	PA 3010			
	Pace Analytica	al Services -	Kansas City					
Lithium, Total Recoverable	<0.010	mg/L	0.010	1	06/20/22 11:30	06/27/22 19:11	7439-93-2	
200.8 MET ICPMS	Analytical Met	hod: EPA 20	00.8 Preparation Met	nod: EF	PA 200.8			
	Pace Analytica	al Services -	Kansas City					
Antimony, Total Recoverable	<0.0010	mg/L	0.0010	1	06/20/22 11:30	06/25/22 15:46	7440-36-0	
Arsenic, Total Recoverable	<0.0010	mg/L	0.0010	1	06/20/22 11:30	06/25/22 15:46	7440-38-2	
Cadmium, Total Recoverable	<0.00050	mg/L	0.00050	1	06/20/22 11:30	06/25/22 15:46	7440-43-9	
Cobalt, Total Recoverable	<0.0010	mg/L	0.0010	1	06/20/22 11:30	06/25/22 15:46	7440-48-4	
Molybdenum, Total Recoverable	<0.0010	mg/L	0.0010	1		06/25/22 15:46	7439-98-7	
Selenium, Total Recoverable	<0.0010	mg/L	0.0010	1	06/20/22 11:30			
Thallium, Total Recoverable	<0.0010	mg/L	0.0010	1	06/20/22 11:30	06/25/22 15:46	7440-28-0	
245.1 Mercury	Analytical Met	hod: EPA 24	45.1 Preparation Met	nod: EF	PA 245.1			
-	Pace Analytica	al Services -	Kansas City					
Mercury	<0.20	ug/L	0.20	1	06/24/22 12:49	06/27/22 10:47	7439-97-6	
300.0 IC Anions 28 Days	Analytical Met	hod: EPA 30	0.0					
-	Pace Analytica	al Services -	Kansas City					
Fluoride	<0.20	mg/L	0.20	1		06/22/22 18:00	16984-48-8	



Project:	TEC 322 LF ANN	JUAL										
Pace Project No .:	60403246											
QC Batch:	794213		Ana	lysis Method	d: I	EPA 245.1						
QC Batch Method:	EPA 245.1		Ana	alysis Descri	ption:	245.1 Mercu	ıry					
			Lab	oratory:		Pace Analyt	ical Service	es - Kansas	s City			
Associated Lab San	nples: 6040324	6001, 6040324600	02, 604032	246003, 6040	03246004,	604032460	05					
METHOD BLANK:	3163947			Matrix: W	ater							
Associated Lab San	nples: 6040324	6001, 6040324600	02, 604032	246003, 6040	03246004,	604032460	05					
		,			Reporting							
Paran	neter	Units	Re	sult	Limit	Analy	/zed	Qualifiers	3			
Mercury		ug/L		<0.20	0.2	0 06/27/22	2 10:08					
2		Ū										
LABORATORY COM	NTROL SAMPLE:	3163948										
			Spike	e LC	S	LCS	% R	ec				
Paran	neter	Units	Conc	. Res	sult	% Rec	Limi	ts (Qualifiers			
Mercury		ug/L		5	4.7	93	3 8	35-115		_		
MATRIX SPIKE & M	ATRIX SPIKE DU	PLICATE: 3163	3949		3163950)						
			MS	MSD	0100000							
		60403356003	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	r Unit	ts Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Mercury	ug/l	L <0.20	5	5	4.5	4.6	89	92	70-130	3	20	
MATRIX SPIKE SAI	MPLE:	3163951										
				3246005	Spike	MS		MS	% Rec			
Paran	neter	Units	R	lesult	Conc.	Result	%	Rec	Limits		Qualif	fiers

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.:	TEC 322 LF ANN 60403246	JAL											
QC Batch:	793235		Analy	sis Meth	nod:	FP	A 200.7						
QC Batch Method:	EPA 200.7		,	sis Desc).7 Metals	Total					
QO Daten Method.	EI A 200.7			atory:	suption.			,	ices - Kans	oc City			
Associated Lab Sar	mples: 60403246	001,6040324600			0403246004				ices - Nalis				
				,		.,							
METHOD BLANK:				Matrix:	Water								
Associated Lab Sar	mples: 60403246	001, 6040324600	2, 6040324	6003, 60	0403246004	1, 604	40324600	5					
			Blan	k	Reporting	J							
Parar	neter	Units	Resu	ult	Limit		Analy	zed	Qualifi	ers			
Barium		mg/L	<(.0050	0.00)50	06/27/22	18:27					
Beryllium		mg/L	<(0.0010	0.00	010	06/27/22	18:27					
Chromium		mg/L	<(0.0050	0.00)50	06/27/22	18:27					
Lead		mg/L	<	0.010	0.0	010	06/27/22	18:27					
LABORATORY CO		3160420											
LADORATORT CO		5100420	Spike		_CS		LCS	%	Rec				
Parar	meter	Units	Conc.		esult		a Rec		nits	Qualifiers			
Barium		mg/L		1	0.98		98		85-115		_		
Beryllium		mg/L		1	0.99		99		85-115				
Chromium		mg/L		1	0.97		97		85-115				
Lead		mg/L		1	0.97		97		85-115				
MATRIX SPIKE & N		PLICATE: 3160	401		316042	<u></u>							
	ATTA SFIRE DUP	LICATE. STOU	MS	MSD	510042	<u> </u>							
		60403246001	Spike	Spike	MS	I	MSD	MS	MSD	% Rec		Max	
Paramete	r Units	Result	Conc.	Conc.	Result	F	Result	% Rec	% Rec	Limits	RPD	RPD	Qual

		60403246001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Barium	mg/L	0.068	1	1	1.0	1.0	94	93	70-130	1	20	
Beryllium	mg/L	<0.0010	1	1	0.93	0.92	93	92	70-130	1	20	
Chromium	mg/L	<0.0050	1	1	0.93	0.91	93	91	70-130	2	20	
Lead	mg/L	<0.010	1	1	0.94	0.93	94	93	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.



Project: TEC 322 LF A	NNUAL					
Pace Project No.: 60403246						
QC Batch: 793237		Analysis N	lethod: E	EPA 200.8		
QC Batch Method: EPA 200.8		Analysis D	escription: 2	200.8 MET		
		Laboratory	/: F	Pace Analytica	al Services - Kar	nsas Citv
Associated Lab Samples: 60403	3246001, 60403246002,	,		,		,
METHOD BLANK: 3160427		Matr	ix: Water			
Associated Lab Samples: 60403	3246001, 60403246002,	60403246003	, 60403246004, 6	60403246005		
		Blank	Reporting			
Parameter	Units	Result	Limit	Analyze	ed Qualit	fiers
Antimony	mg/L	<0.001	0 0.0010	06/25/22 1	5:21	
Arsenic	mg/L	<0.001	0 0.0010	06/25/22 1	5:21	
Cadmium	mg/L	<0.0005	0 0.00050	06/25/22 1	5:21	
Cobalt	mg/L	<0.001	0 0.0010	06/25/22 1	5:21	
Molybdenum	mg/L	<0.001	0 0.0010	0 06/25/22 1	5:21	
Selenium	mg/L	<0.001	0 0.0010	0 06/25/22 1	5:21	
Thallium	mg/L	<0.001	0 0.0010	0 06/25/22 1	5:21	
	E 0400400					
LABORATORY CONTROL SAMPL	E: 3160428	Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Antimony	mg/L	0.04	0.039	97	85-115	
Arsenic	mg/L	0.04	0.038	95	85-115	
Cadmium	mg/L	0.04	0.039	96	85-115	
Cobalt	mg/L	0.04	0.038	96	85-115	
Molybdenum	mg/L	0.04	0.039	97	85-115	
	-					
Selenium	mg/L	0.04	0.041	101	85-115	

MATRIX SPIKE & MATRIX	SPIKE DUPLI	CATE: 3160	429		3160430							
Parameter	(Units	60403246002 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	0.039	0.040	99	100	70-130	2	20	
Arsenic	mg/L	<0.0010	0.04	0.04	0.039	0.039	96	97	70-130	1	20	
Cadmium	mg/L	<0.00050	0.04	0.04	0.038	0.038	94	96	70-130	2	20	
Cobalt	mg/L	<0.0010	0.04	0.04	0.036	0.037	91	92	70-130	2	20	
Molybdenum	mg/L	<0.0010	0.04	0.04	0.042	0.043	105	106	70-130	2	20	
Selenium	mg/L	<0.0010	0.04	0.04	0.039	0.040	98	101	70-130	2	20	
Thallium	mg/L	<0.0010	0.04	0.04	0.040	0.041	100	102	70-130	2	20	

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

REPORT OF LABORATORY ANALYSIS

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Project:	TEC 322 LF ANNU	JAL										
Pace Project No .:	60403246											
QC Batch:	793236		Analy	sis Metho	od:	EPA 6010						
QC Batch Method:	EPA 3010		Analy	sis Desci	iption:	6010 MET						
			Labo	ratory:		Pace Analy	tical Servio	es - Kansa	s City			
Associated Lab San	nples: 60403246	001, 60403246002	2, 6040324	6003, 604	103246004	, 604032460	05					
METHOD BLANK:	3160423			Matrix: V	Vater							
Associated Lab San	nples: 60403246	001, 60403246002	2, 6040324	6003, 604	403246004	, 604032460	05					
			Blar	nk	Reporting							
Paran	neter	Units	Res	ult	Limit	Anal	yzed	Qualifier	S			
Lithium		mg/L		<0.010	0.0	10 06/27/2	2 18:49					
LABORATORY CON	NTROL SAMPLE:	3160424										
			Spike	L	CS	LCS	% F	Rec				
Paran	neter	Units	Conc.	Re	sult	% Rec	Lim	its	Qualifiers			
Lithium		mg/L		1	0.96	9	6	80-120		_		
MATRIX SPIKE & N	IATRIX SPIKE DUP	LICATE: 31604	-	MOD	316042	26						
			MS	MSD								
		60403246001	-	Sniko	MS	MSD	MS	MCD	% Roc		Max	
Parameter	Units	60403246001 Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual

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:	TEC 322 LF ANN	UAL										
Pace Project No.:	60403246											
QC Batch:	793624		Analy	sis Metho	d: E	PA 300.0						
QC Batch Method:	EPA 300.0		Analy	sis Descri	ption: 3	00.0 IC An	nions					
			Labor	atory:	Р	ace Analy	tical Servic	es - Kansa	s City			
Associated Lab Sar	mples: 60403246	6001, 604032460	002, 6040324	6003, 604	03246004, 6	04032460	05					
METHOD BLANK:	3161785			Matrix: W	ater							
Associated Lab Sar	mples: 60403246	6001, 604032460	002, 6040324	6003, 604	03246004, 6	04032460	05					
			Blan	k	Reporting							
Parar	neter	Units	Resu	ılt	Limit	Anal	yzed	Qualifier	S			
Fluoride		mg/L		<0.20	0.20	06/22/2	2 10:17					
METHOD BLANK:	3164319			Matrix: W	ater							
Associated Lab Sar	nples: 60403246	6001, 604032460	002, 6040324	6003, 604	03246004, 6	04032460	05					
			Blan	k	Reporting							
Parar	neter	Units	Resu	ılt	Limit	Anal	yzed	Qualifier	S			
Fluoride		mg/L		<0.20	0.20	06/23/2	2 17:20					
LABORATORY CO	NTROL SAMPLE:	3161786										
			Spike	LC	S	LCS	% R	ec				
Parar	neter	Units	Conc.	Res	sult	% Rec	Limi	its	Qualifiers			
Fluoride		mg/L	2.	5	2.4	9	7	90-110				
MATRIX SPIKE & N	ATRIX SPIKE DU	PLICATE: 316	61787		3161788							
			MS	MSD								
_		60403403001	•	Spike	MS	MSD	MS	MSD	% Rec		Max	_
Paramete	r Unit	s Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual

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: TEC 322 LF ANNUAL

Pace Project No.: 60403246

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.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: TEC 322 LF ANNUAL

Pace Project No.: 60403246

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60403246001	MW-1-061422	EPA 200.7	793235	EPA 200.7	793374
60403246002	MW-4-061422	EPA 200.7	793235	EPA 200.7	793374
60403246003	MW-5-061422	EPA 200.7	793235	EPA 200.7	793374
60403246004	MW-6-061422	EPA 200.7	793235	EPA 200.7	793374
60403246005	DUP-322LF-061422	EPA 200.7	793235	EPA 200.7	793374
60403246001	MW-1-061422	EPA 3010	793236	EPA 6010	793376
60403246002	MW-4-061422	EPA 3010	793236	EPA 6010	793376
60403246003	MW-5-061422	EPA 3010	793236	EPA 6010	793376
60403246004	MW-6-061422	EPA 3010	793236	EPA 6010	793376
60403246005	DUP-322LF-061422	EPA 3010	793236	EPA 6010	793376
60403246001	MW-1-061422	EPA 200.8	793237	EPA 200.8	793377
60403246002	MW-4-061422	EPA 200.8	793237	EPA 200.8	793377
60403246003	MW-5-061422	EPA 200.8	793237	EPA 200.8	793377
60403246004	MW-6-061422	EPA 200.8	793237	EPA 200.8	793377
60403246005	DUP-322LF-061422	EPA 200.8	793237	EPA 200.8	793377
60403246001	MW-1-061422	EPA 245.1	794213	EPA 245.1	794341
60403246002	MW-4-061422	EPA 245.1	794213	EPA 245.1	794341
60403246003	MW-5-061422	EPA 245.1	794213	EPA 245.1	794341
60403246004	MW-6-061422	EPA 245.1	794213	EPA 245.1	794341
60403246005	DUP-322LF-061422	EPA 245.1	794213	EPA 245.1	794341
60403246001	MW-1-061422	EPA 300.0	793624		
60403246002	MW-4-061422	EPA 300.0	793624		
60403246003	MW-5-061422	EPA 300.0	793624		
60403246004	MW-6-061422	EPA 300.0	793624		
60403246005	DUP-322LF-061422	EPA 300.0	793624		

			WO#:60403246
Pace	DC#_Title: ENV-FRM	I-LENE-0009_Sample	e Cont 60403246
AUTO-TICAL SERVICES	Revision: 2 Ef	fective Date: 01/12/202	2 Issued By: Lenexa
Revision: 2 Effective Date: 01/12/2022 Issued By: Lend Client Name: Image Mansal Central Image Central Image Central Image Central Courier: FedEx I UPS VIA Clay I PEX ECI Pace I Xroads I Tracking #:			
Courier: FedEx UPS	U VIA 🗆 Clay 🗆	PEX 🗆 ECI 🗆 F	Pace 🗆 Xroads 🗆 Client 💋 Other 🗆
Tracking #:	P	ace Shipping Label Used?	Yes 🗆 No 💋
Custody Seal on Cooler/Box	Present: Yes D No 🗹	Seals intact: Yes 🗆	
		s 🗆 💦 Foam 🗆	None D Other ZZPLC
		~	Data and initials of some of the start
Cooler Temperature (°C):	As-read <u>3, 9</u> Corr. Fa	ctor_ <u>-/. /</u> Correcte	d 2.9 Date and initials of person 6/18/2
Temperature should be above free	zing to 6°C		
Chain of Custody present:		Yes No N/A	
Chain of Custody relinquished:		Yes No N/A	
Samples arrived within holding	time:	ZYes DNO DN/A	
Short Hold Time analyses (<	72hr):	□Yes ZNo □N/A	
Rush Turn Around Time requ	lested:	TYes No N/A	
Sufficient volume:		Yes No N/A	
Correct containers used:		Yes No N/A	
Pace containers used:		ZYes □No □N/A	
Containers intact:		Yes 🗆 No 🗆 N/A	
Unpreserved 5035A / TX1005/	1006 soils frozen in 48hrs?	□Yes □No ØN/A	
Filtered volume received for dis	solved tests?	□Yes □No ☑N/A	
Sample labels match COC: Da	te / time / ID / analyses		
Samples contain multiple phase	es? Matrix:		
Containers requiring pH preser	vation in compliance?		ist sample IDs, volumes, lot #'s of preservative and the
(HNO ₃ , H ₂ SO ₄ , HCI<2; NaOH>9 Su	Ifide, NaOH>10 Cyanide)	т#: 55 192	ate/time added.
(Exceptions: VOA, Micro, O&G, KS Cyanide water sample checks:			
Lead acetate strip turns dark? (□Yes □No	
Potassium iodide test strip turn	s blue/purple? (Preserve)	Yes No	
Trip Blank present:		□Yes □No ☑N/A	
Headspace in VOA vials (>6m	m):	□Yes □No ØN/A	
Samples from USDA Regulated	d Area: State:		
Additional labels attached to 50	35A / TX1005 vials in the fie	Id? 🗆 Yes 🗆 No 🖉 N/A	
Client Notification/ Resolution	n: Copy COC	C to Client? Y / N	Field Data Required? Y / N
Person Contacted:	Date	e/Time:	
Comments/ Resolution:			
Project Manager Review:		Date:	

4

Pace

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		Section B								Sec	tion (0													- 75								
_	ed Client Information:	Required F								invo	oice Ir	nform	atior	1:													1.17	Page :		1	Of	6	1
Compa		Report To:	Me	lissa	Michels, [Danielle O)berbroec	kling, Skar	ney		ntion:			ints Pa											l'		_						
Addres	3,	Copy To:	Jar	ed M	orrison, Ja	ake Hump	hrey, Lau	ra Hines		Corr	pany	Name): Е	VERG	SY KA	NSAS	CEN	TRA	AL, IN	IC.													
_	nsas Ave, Topeka, KS 66612					_					ress:		ee S	ection	А													Regi	ulator	y Ager	ncy		
Email:	melissa michels@evergy.com	Purchase C			_		_		_	_	e Quo			_				_		_		_	_										
Phone:	602-760-2463 (DO) Fax	Project Nar	ne:	TE	C 322 LF	CCR Ann	ual				_	ect Ma	_	_	_	s.spill	er@p	bacel	abs.c	com,			_					Sta	ite / L	ocatio	n		
Reques	ited Due Date: STD 2 weeks	Project #:	_	_	_			_	_	Pace	e Prof	file #:	96	657, li	ne 2		_	_	_	_	_	_	_						K	5			
_			-	1	r	_			-	-	_				_		-	_	_	Re	ques	ted A	nalys	sis Filt	tered	(Y/N)	_						1E)
		g Water DW	odes to left)	C=COMP)		COLL	ECTED		TION			F	res	ervat	tives			XN X	N	N	_		_							S AN			
	SAMPLE ID Soli/So Oli	t P Ilid SL OL	(see valid codes to left)	(G=GRAB C=COMP)	ST	ART	Е	ND	AT COLLEC	IRS								Test	luoride		Pb Pb							- WAD	ne (Y/N)		1	46	
ITEM #	One Character per box. Wipe (A-Z, 0-9 /, -) Air Sample Ids must be unique Tissue	WP AR OT TS	MATRIX CODE	SAMPLE TYPE					SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	- IUI	NaOH	Na2S203	Methanol	Other	Analyses	300.0 Anions Fluoride	245.1 Mercury	200 / Ba,Be,Cr,Pb	5010 Lithium (RL <0.04 ma/l						add In the	esidual Unior	, _o Ď	40 ³¹		
			+2	S	DATE	TIME	DATE	100	<i>v</i> i	*	-		1-	- z	Z	Σ	<u> </u>	-					-	+	-+	_	+-	┢	<u>-</u>	<u> </u>			
1	MW-1- 06/14/22		WT	G			5/14/22	1210		2	1	1							x	×	×	× ×	-										
2	MW-4- 06/14/22		WT	G	-	-		1443		2	1	1							x	×	x	××											
3	MW-5- 06/14/22		WT	G		-		1350		2	1	1							x	×	x	< ×											
4	MW-6- 66/14/22		WT	G		-		1300		2	T								x	x	x	< x											
5	DUP-322LF- 06/14/22		WT	G	1	-	1	1210		2	t	1						ſ	×	×	x ;	(x											
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Page 23 of							000	AND SIGN			7.6				~				3			Т	2		(0	Le la				
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Ę.												DCI	14	12	2		TEMP	Rec	e ₹	Cus Seal. Coo	Sar	ĭ₹											

DC#_Title: ENV-FRM-LENE-0001_Sample Container Count Revision: 3 | Effective Date: | Issued by: Lenexa

Client: Evergy Kansas Central Inc Site: TEL 322 LF CCK Annual

Profile # 9657 Line 2

Notes _____

WGKU WGDU WPDU DG9M VG9H DG9H DG9Q VG9U DG9U BG1U AG1H AG1U AG2U AG3S AG4U AG5U JGFU ZPLC DG9B BP1U BP2U BP3U BP1N **BP3N** BP3F BP3C BP3S BP3Z Matrix Other COC ine Item 1 WT 2 WT 3 1 WT 4 T WT 5 6 7 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 HCI 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 HCI 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 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	1	
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	1	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

BP4S

WPDU

125mL HNO3 plastic

125mL H2SO4 plastic

16oz unpresserved plstic

Work Order Number:

60403246

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



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

October 14, 2022

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

RE: Project: TEC 322 LANDFILL CCR Pace Project No.: 60409977

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

REVISION_1 9/27/22 to reflect unit conformity.

REVISION_2 10/14/22

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

Sincerely,

Alice Spiller

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

Enclosures

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





CERTIFICATIONS

Project: TEC 322 LANDFILL CCR

Pace Project No.: 60409977

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: TEC 322 LANDFILL CCR

Pace Project No.: 60409977

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60409977001	MW-1-090922	Water	09/09/22 10:10	09/09/22 16:30
60409977002	MW-4-090922	Water	09/09/22 11:35	09/09/22 16:30
60409977003	MW-5-090922	Water	09/09/22 11:05	09/09/22 16:30
60409977004	MW-6-090922	Water	09/09/22 10:35	09/09/22 16:30
60409977005	DUP-322LF-090922	Water	09/09/22 10:15	09/09/22 16:30



SAMPLE ANALYTE COUNT

Project: TEC 322 LANDFILL CCR

Pace Project No.: 60409977

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60409977001	MW-1-090922	EPA 200.7	MA1	3	PASI-K
		EPA 6010	MA1	1	PASI-K
		EPA 200.8	MRV	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
0409977002	MW-4-090922	EPA 200.7	MA1	3	PASI-K
		EPA 6010	MA1	1	PASI-K
		EPA 200.8	MRV	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
0409977003	MW-5-090922	EPA 200.7	MA1	3	PASI-K
		EPA 6010	MA1	1	PASI-K
		EPA 200.8	MRV	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
0409977004	MW-6-090922	EPA 200.7	MA1	3	PASI-K
		EPA 6010	MA1	1	PASI-K
		EPA 200.8	MRV	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
0409977005	DUP-322LF-090922	EPA 200.7	MA1	3	PASI-K
		EPA 6010	MA1	1	PASI-K
		EPA 200.8	MRV	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: TEC 322 LANDFILL CCR

Pace Project No.: 60409977

Date: October 14, 2022

Amended to reflect any adjustments after data review of fluoride.



Project: TEC 322 LANDFILL CCR

Pace Project No.: 60409977

Method: EPA 200.7

Description:200.7 Metals, TotalClient:Evergy Kansas Central, Inc.Date:October 14, 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.

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: TEC 322 LANDFILL CCR

Pace Project No.: 60409977

Method: EPA 6010

Description:6010 MET ICPClient:Evergy Kansas Central, Inc.Date:October 14, 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.

Additional Comments:



Project: TEC 322 LANDFILL CCR

Pace Project No.: 60409977

Method: EPA 200.8

Description:200.8 MET ICPMSClient:Evergy Kansas Central, Inc.Date:October 14, 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.

QC Batch: 807377

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

R1: RPD value was outside control limits.

- MSD (Lab ID: 3211945)
 - Cobalt

Additional Comments:



Project: TEC 322 LANDFILL CCR

Pace Project No.: 60409977

Method: SM 2540C

Description:2540C Total Dissolved SolidsClient:Evergy Kansas Central, Inc.Date:October 14, 2022

General Information:

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

Hold Time:

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

Method Blank:

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

Laboratory Control Spike:

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

Matrix Spikes:

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

Duplicate Sample:

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

QC Batch: 807820

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

- DUP (Lab ID: 3213732)
 - Total Dissolved Solids

Additional Comments:



Project: TEC 322 LANDFILL CCR

Pace Project No.: 60409977

Method: SM 4500-H+B

Description:4500H+ pH, ElectrometricClient:Evergy Kansas Central, Inc.Date:October 14, 2022

General Information:

5 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-322LF-090922 (Lab ID: 60409977005)
- MW-1-090922 (Lab ID: 60409977001)
- MW-4-090922 (Lab ID: 60409977002)
- MW-5-090922 (Lab ID: 60409977003)
- MW-6-090922 (Lab ID: 60409977004)

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: TEC 322 LANDFILL CCR

Pace Project No.: 60409977

Method: EPA 300.0

Description:300.0 IC Anions 28 DaysClient:Evergy Kansas Central, Inc.Date:October 14, 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.

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.



Project: TEC 322 LANDFILL CCR

Pace Project No .:

lo.: 60409977

Sample: MW-1-090922	Lab ID: 604	09977001	Collected: 09/09/2	2 10:10	Received: 09	/09/22 16:30 N	latrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Mether	nod: EPA 20	0.7 Preparation Met	hod: EF	PA 200.7			
	Pace Analytica	I Services -	Kansas City					
Barium, Total Recoverable	0.062	mg/L	0.0050	1	09/13/22 12:55	09/14/22 10:39	7440-39-3	
Boron, Total Recoverable	<0.10	mg/L	0.10	1	09/13/22 12:55	09/14/22 10:39	7440-42-8	
Calcium, Total Recoverable	159	mg/L	0.20	1	09/13/22 12:55	09/14/22 10:39	7440-70-2	M1
6010 MET ICP	Analytical Mether	nod: EPA 60	10 Preparation Meth	nod: EP	A 3010			
	Pace Analytica	I Services -	Kansas City					
Lithium, Total Recoverable	0.011	mg/L	0.010	1	09/13/22 12:55	09/14/22 10:14	7439-93-2	
200.8 MET ICPMS	Analytical Mether	nod: EPA 20	0.8 Preparation Met	hod: EF	PA 200.8			
	Pace Analytica	l Services -	Kansas City					
Cobalt, Total Recoverable	<0.0010	mg/L	0.0010	1	09/13/22 12:55	09/15/22 14:22	7440-48-4	R1
2540C Total Dissolved Solids	Analytical Mether	nod: SM 254	IOC					
	Pace Analytica	I Services -	Kansas City					
Total Dissolved Solids	991	mg/L	13.3	1		09/15/22 11:24		
4500H+ pH, Electrometric	Analytical Mether	nod: SM 450	00-H+B					
•	Pace Analytica	I Services -	Kansas City					
pH at 25 Degrees C	7.2	Std. Units	0.10	1		09/12/22 16:10		H6
300.0 IC Anions 28 Days	Analytical Mether	nod: EPA 30	0.0					
-	Pace Analytica	I Services -	Kansas City					
Chloride	46.0	mg/L	10.0	10		09/13/22 17:11	16887-00-6	
Fluoride	<0.20	mg/L	0.20	1		10/05/22 12:31	16984-48-8	
Sulfate	373	mg/L	50.0	50		09/13/22 17:25	14808-79-8	



Project: TEC 322 LANDFILL CCR

Pace Project No.:

No.: 60409977

Sample: MW-4-090922	Lab ID: 604	09977002	Collected: 09/09/2	2 11:35	5 Received: 09	9/09/22 16:30 N	latrix: 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: El	PA 200.7			
	Pace Analytica	al Services -	Kansas City					
Barium, Total Recoverable	0.099	mg/L	0.0050	1	09/13/22 12:55	09/14/22 10:51	7440-39-3	
Boron, Total Recoverable	<0.10	mg/L	0.10	1	09/13/22 12:55	09/14/22 10:51	7440-42-8	
Calcium, Total Recoverable	171	mg/L	0.20	1	09/13/22 12:55	09/14/22 10:51	7440-70-2	
6010 MET ICP	Analytical Met	hod: EPA 60	10 Preparation Meth	nod: EP	A 3010			
	Pace Analytica	al Services -	Kansas City					
Lithium, Total Recoverable	<0.010	mg/L	0.010	1	09/13/22 12:55	09/14/22 10:16	7439-93-2	
200.8 MET ICPMS	Analytical Met	hod: EPA 20	0.8 Preparation Met	hod: El	PA 200.8			
	Pace Analytica	al Services -	Kansas City					
Cobalt, Total Recoverable	<0.0010	mg/L	0.0010	1	09/13/22 12:55	09/15/22 14:40	7440-48-4	
2540C Total Dissolved Solids	Analytical Met	hod: SM 254	OC					
	Pace Analytica	al Services -	Kansas City					
Total Dissolved Solids	1380	mg/L	13.3	1		09/15/22 11:24		D6
4500H+ pH, Electrometric	Analytical Met	hod: SM 450	0-H+B					
	Pace Analytica	al Services -	Kansas City					
pH at 25 Degrees C	6.7	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 Analytica	al Services -	Kansas City					
Chloride	234	mg/L	50.0	50		09/13/22 18:09	16887-00-6	
Fluoride	<0.20	mg/L	0.20	1		10/05/22 12:43		
Sulfate	183	mg/L	10.0	10		09/13/22 17:54	14808-79-8	



Project: TEC 322 LANDFILL CCR

Pace Project No.:

No.: 60409977

Sample: MW-5-090922	Lab ID: 604	09977003	Collected: 09/09/2	2 11:05	Received: 09	/09/22 16:30 N	latrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qu
200.7 Metals, Total	Analytical Met	hod: EPA 200	0.7 Preparation Met	hod: EF	PA 200.7			
	Pace Analytica	al Services - I	Kansas City					
Barium, Total Recoverable	0.027	mg/L	0.0050	1	09/13/22 12:55	09/14/22 10:53	7440-39-3	
Boron, Total Recoverable	0.35	mg/L	0.10	1	09/13/22 12:55	09/14/22 10:53	7440-42-8	
Calcium, Total Recoverable	210	mg/L	0.20	1	09/13/22 12:55	09/14/22 10:53	7440-70-2	
6010 MET ICP	Analytical Met	hod: EPA 601	10 Preparation Meth	od: EP	A 3010			
	Pace Analytica	al Services - I	Kansas City					
Lithium, Total Recoverable	0.021	mg/L	0.010	1	09/13/22 12:55	09/14/22 10:28	7439-93-2	
200.8 MET ICPMS	Analytical Met	hod: EPA 200	0.8 Preparation Met	hod: EF	PA 200.8			
	Pace Analytica	al Services - I	Kansas City					
Cobalt, Total Recoverable	<0.0010	mg/L	0.0010	1	09/13/22 12:55	09/15/22 14:45	7440-48-4	
2540C Total Dissolved Solids	Analytical Met	hod: SM 254	0C					
	Pace Analytica	al Services - I	Kansas City					
Total Dissolved Solids	1300	mg/L	13.3	1		09/15/22 11:24		
4500H+ pH, Electrometric	Analytical Met	hod: SM 450	0-H+B					
• /	Pace Analytica	al Services - I	Kansas City					
pH at 25 Degrees C	7.7	Std. Units	0.10	1		09/12/22 16:10		H6
300.0 IC Anions 28 Days	Analytical Met	hod: EPA 300	0.0					
-	Pace Analytica	al Services - I	Kansas City					
Chloride	58.2	mg/L	10.0	10		09/13/22 18:38	16887-00-6	
Fluoride	<0.20	mg/L	0.20	1		10/05/22 12:56	16984-48-8	
Sulfate	481	mg/L	50.0	50		09/13/22 18:53	14808-79-8	



Project: TEC 322 LANDFILL CCR

Pace Project No .:

No.: 60409977

Sample: MW-6-090922	Lab ID: 604	09977004	Collected: 09/09/2	2 10:35	Received: 09	/09/22 16:30 N	latrix: 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	hod: EF	PA 200.7			
	Pace Analytica	al Services -	Kansas City					
Barium, Total Recoverable	0.019	mg/L	0.0050	1	09/13/22 12:55	09/14/22 10:55	7440-39-3	
Boron, Total Recoverable	0.62	mg/L	0.10	1	09/13/22 12:55	09/14/22 10:55	7440-42-8	
Calcium, Total Recoverable	337	mg/L	0.20	1	09/13/22 12:55	09/14/22 10:55	7440-70-2	
6010 MET ICP	Analytical Met	hod: EPA 60	10 Preparation Met	nod: EP	A 3010			
	Pace Analytica	al Services -	Kansas City					
Lithium, Total Recoverable	0.017	mg/L	0.010	1	09/13/22 12:55	09/14/22 10:30	7439-93-2	
200.8 MET ICPMS	Analytical Met	hod: EPA 20	0.8 Preparation Met	hod: EF	PA 200.8			
	Pace Analytica	al Services -	Kansas City					
Cobalt, Total Recoverable	0.0022	mg/L	0.0010	1	09/13/22 12:55	09/15/22 14:49	7440-48-4	
2540C Total Dissolved Solids	Analytical Met	hod: SM 254	10C					
	Pace Analytica	al Services -	Kansas City					
Total Dissolved Solids	1950	mg/L	20.0	1		09/16/22 17:09		
4500H+ pH, Electrometric	Analytical Met	hod: SM 450)0-H+B					
, ,	Pace Analytica	al Services -	Kansas City					
pH at 25 Degrees C	7.2	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 Analytica							
Chloride	50.8	mg/L	10.0	10		09/13/22 19:51	16887-00-6	
Fluoride	<0.20	mg/L	0.20	1		10/05/22 13:09		
Sulfate	1060	mg/L	100	100		09/14/22 15:00		



Project: TEC 322 LANDFILL CCR

Pace Project No .: 60409977

Sample: DUP-322LF-090922	Lab ID: 604	09977005	Collected: 09/09/2	22 10:15	6 Received: 09)/09/22 16:30 N	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Mether	nod: EPA 20	00.7 Preparation Me	thod: EF	PA 200.7			
	Pace Analytica	I Services -	Kansas City					
Barium, Total Recoverable	0.062	mg/L	0.0050	1	09/13/22 12:55	09/14/22 10:57	7440-39-3	
Boron, Total Recoverable	<0.10	mg/L	0.10	1		09/14/22 10:57		
Calcium, Total Recoverable	154	mg/L	0.20	1	09/13/22 12:55	09/14/22 10:57	7440-70-2	
6010 MET ICP	Analytical Mether	nod: EPA 60	010 Preparation Met	hod: EP	A 3010			
	Pace Analytica	I Services -	Kansas City					
Lithium, Total Recoverable	<0.010	mg/L	0.010	1	09/13/22 12:55	09/14/22 10:32	7439-93-2	
200.8 MET ICPMS	Analytical Mether	nod: EPA 20	0.8 Preparation Me	thod: EF	PA 200.8			
	Pace Analytica	I Services -	Kansas City					
Cobalt, Total Recoverable	<0.0010	mg/L	0.0010	1	09/13/22 12:55	09/15/22 14:54	7440-48-4	
2540C Total Dissolved Solids	Analytical Mether	nod: SM 254	40C					
	Pace Analytica	I Services -	Kansas City					
Total Dissolved Solids	965	mg/L	13.3	1		09/16/22 17:09		
4500H+ pH, Electrometric	Analytical Mether	nod: SM 450	00-H+B					
•	Pace Analytica	I 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 Mether	nod: EPA 30	0.0					
-	Pace Analytica	I Services -	Kansas City					
Chloride	47.5	mg/L	10.0	10		09/13/22 20:35	16887-00-6	
Fluoride	<0.20	mg/L	0.20	1		10/05/22 13:21	16984-48-8	
Sulfate	378	mg/L	50.0	50		09/13/22 20:50	14808-79-8	



Project:	TEC 322 LANDFII	LL CCR										
	60409977											
QC Batch:	807376		Analy	ysis Metho	d: E	PA 200.7						
QC Batch Method:	EPA 200.7		Analy	ysis Descr	iption: 2	00.7 Metals	s, Total					
			Labo	oratory:	F	ace Analyti	cal Servic	es - Kansa	s City			
Associated Lab Sam	ples: 60409977	001, 6040997700	2, 6040997	77003, 604	09977004, 6	6040997700)5					
METHOD BLANK:	3211937			Matrix: W	/ater							
Associated Lab Sam	ples: 60409977	001, 6040997700	2, 6040997	7003, 604	09977004, 6	6040997700)5					
			Blai	nk	Reporting							
Param	eter	Units	Res	ult	Limit	Analy	zed	Qualifier	S			
Barium		mg/L	<	0.0050	0.0050	09/14/22	2 10:36					
Boron		mg/L		<0.10	0.10	09/14/22	2 10:36					
Calcium		mg/L		<0.20	0.20	09/14/22	2 10:36					
LABORATORY CON		3211938										
		0211000	Spike	LC	CS	LCS	% R	ec				
Param	eter	Units	Conc.		sult	% Rec	Limi		Qualifiers	_		
Barium		mg/L		1	0.99	99) (85-115				
Boron		mg/L		1	0.97	97	· ;	85-115				
Calcium		mg/L	1	10	9.9	99) 3	85-115				
MATRIX SPIKE & M	ATRIX SPIKE DUF	PLICATE: 3211	939		3211940							
			MS	MSD								
		60409977001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	s 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	
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
MATRIX SPIKE SAM	IPLE:	3211941										
		-	60409	979005	Spike	MS		MS	% Rec			
Param	eter	Units	Re	esult	Conc.	Result	%	6 Rec	Limits		Quali	fiers
Barium		mg/L		0.015	1		1.0	101	70-	130		
Boron		mg/L		11.1	1	1	1.9	83	70-	130		
		mg/L		584	10		586	25		130 M		

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REPORT OF LABORATORY ANALYSIS

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Project: Pace Project No.:	TEC 322 LANDFI 60409977	LL CCR										
QC Batch:	807377		Anal	ysis Metho	d:	EPA 200.8						
QC Batch Method:	EPA 200.8			, ysis Descri		200.8 MET						
				pratory:	•	Pace Analy	tical Servic	es - Kansa	s Citv			
Associated Lab Sar	nples: 60409977	001, 6040997700		,					,			
METHOD BLANK:	3211942			Matrix: W	/ater							
Associated Lab Sar	nples: 60409977	001, 6040997700	2, 6040997	77003, 604	09977004,	604099770	05					
			Bla	nk	Reporting							
Parar	neter	Units	Res	ult	Limit	Anal	yzed	Qualifier	S			
Cobalt		mg/L	<	0.0010	0.001	0 09/15/2	2 14:15					
LABORATORY CO	NTROL SAMPLE:	3211943										
			Spike	LC	S	LCS	% R	ec				
Parar	neter	Units	Conc.	Re	sult	% Rec	Limi	ts (Qualifiers			
Cobalt		mg/L	0.0)4	0.034	8	5 8	85-115		_		
MATRIX SPIKE & M		PLICATE: 3211	944		3211945	5						
		LIOATE. 5211	MS	MSD	5211540	,						
		60409977001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Paramete	r Units		Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
				0.04	0.040							R1

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Project:	TEC 322 LANDFI	LL CCR										
Pace Project No.:	60409977											
QC Batch:	807379		Analy	sis Method	d: E	EPA 6010						
QC Batch Method:	EPA 3010		Analy	ysis Descrij	ption: 6	6010 MET						
			Labo	ratory:	F	Pace Analyt	ical Service	es - Kansa	s City			
Associated Lab Sar	nples: 60409977	7001, 6040997700	02, 6040997	7003, 6040	09977004, 0	6040997700	05					
METHOD BLANK:	3211950			Matrix: W	ater							
Associated Lab Sar	nples: 60409977	001, 6040997700)2, 6040997	7003, 604	09977004, 0	604099770	05					
			Blar	nk l	Reporting							
			-	1.	1.1	Analy	zed	Qualifier	s			
Parar	neter	Units	Res	ult	Limit	Analy	200	Quannor	0			
Parar	neter	Units mg/L		ult <0.010	0.010			Qualifier				
	neter							Qualifier				
Lithium		mg/L			0.010							
Lithium	NTROL SAMPLE:	mg/L		<0.010	0.010	09/14/22	2 10:12	ec	Qualifiers			
Lithium	NTROL SAMPLE:	mg/L 3211951	Spike	<0.010	0.010	09/14/22	2 10:12 % Re Limi	ec				
Lithium LABORATORY CO Parar	NTROL SAMPLE:	mg/L 3211951 Units	Spike	<0.010 LC Res	0.010 S Sult	LCS % Rec	2 10:12 % Re Limi	ec ts				
Lithium LABORATORY CO Parar	NTROL SAMPLE:	3211951 Units mg/L	Spike Conc.	<0.010 LC Res	0.010 S Sult	0 09/14/22 LCS % Rec 99	2 10:12 % Re Limi	ec ts				
Lithium LABORATORY CO Parar Lithium	NTROL SAMPLE:	3211951 Units mg/L	Spike Conc.	<0.010 LC Res	0.010 S sult 0.99	0 09/14/22 LCS % Rec 99	2 10:12 % Re Limi	ec ts		_		
Lithium LABORATORY CO Parar Lithium	NTROL SAMPLE:	3211951 Units mg/L	Spike Conc.	<0.010 LC 1	0.010 S sult 0.99	0 09/14/22 LCS % Rec 99	2 10:12 % Re Limi 0 E	ec ts 30-120 MSD	Qualifiers % Rec		Max	
Lithium LABORATORY CO Parar Lithium	NTROL SAMPLE: neter 1ATRIX SPIKE DUF	mg/L 3211951 Units mg/L PLICATE: 3211 60409977002	Spike Conc. 952 MS	<0.010 LC Res 1 MSD	0.010	0 09/14/22 LCS % Rec 99	2 10:12 % Re Limi 2	ec ts 30-120	Qualifiers	RPD	Max RPD	Qual

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.:	TEC 322 LANDFI 60409977	LL CCR						
QC Batch:	807820		Analysis Me	thod:	SM 2540C			
QC Batch Method:	SM 2540C		Analysis De	scription: 2	2540C Total Di	ssolved Solids		
			Laboratory:	•	Pace Analytica	l Services - Kai	nsas City	
Associated Lab Sam	nples: 60409977	2001, 6040997700	02, 60409977003				·	
METHOD BLANK:	3213729		Matrix	: Water				
Associated Lab Sam	ples: 60409977	7001, 6040997700	02, 60409977003					
			Blank	Reporting				
Param	neter	Units	Result	Limit	Analyze	d Quali	fiers	
Total Dissolved Solid	ds	mg/L	<5.0	5.	0 09/15/22 1	1:22		
LABORATORY CON	ITROL SAMPLE:	3213730						
			Spike	LCS	LCS	% Rec		
Param	neter	Units	Conc.	Result	% Rec	Limits	Qualifiers	
Total Dissolved Solid	ds	mg/L	1000	1040	104	80-120		
SAMPLE DUPLICAT	E: 3213731							
5			60410031002	Dup		Max	0 ""	
Param		Units	Result	Result	RPD	RPD	Qualifiers	
Total Dissolved Solid	ds	mg/L	1400	142	0	2	10	
SAMPLE DUPLICAT	E: 3213732							
-			60409977002	Dup		Max	0 11/1	
Param	neter	Units	Result	Result	RPD	RPD	Qualifiers	
Total Dissolved Solid	ds	mg/L	1380	115	0	18	10 D6	

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Project:	TEC 32	22 LANDFIL	L CCR								
Pace Project No.:	604099	977									
QC Batch:	80802	22		Analysis M	lethod:	SN	VI 2540C				
QC Batch Method:	SM 2	540C		Analysis D	escription:	25	640C Total Dis	ssolved Solid	ds		
				Laboratory	/:	Pa	ace Analytical	Services - k	Kansas (City	
Associated Lab Sar	nples:	60409977	004, 60409977005								
METHOD BLANK:	321437	76		Matr	ix: Water						
Associated Lab Sar	nples:	60409977	004, 60409977005								
				Blank	Reportin	g					
Paran	neter		Units	Result	Limit		Analyze	d Qu	alifiers		
Total Dissolved Soli	Dissolved Solids mg/L				0	5.0	09/16/22 17	7:09			
LABORATORY COI	NTROLS	SAMPLE:	3214377								
				Spike	LCS		LCS	% Rec			
Paran	neter		Units	Conc.	Result	Ċ	% Rec	Limits	Qı	ualifiers	
Total Dissolved Soli	ds		mg/L	1000	994		99	80-12	20		
SAMPLE DUPLICA	TE: 32	14378									
_				60409977004				Ma			
Parar	neter		Units	Result	Result		RPD	RP	D	Qualifiers	
Total Dissolved Soli	ds		mg/L	195	0 1	850		5	10		
SAMPLE DUPLICA	TE: 32	14379									
				60410045005				Ma			
Paran	neter		Units	Result	Result		RPD	RP	D	Qualifiers	
Total Dissolved Soli			mg/L	2790							

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Project: Pace Project No.:	TEC 322 LANDFIL 60409977	LCCR											
QC Batch:	807176		Analysis Meth	iod:	SM 4500-H+B								
QC Batch Method:	SM 4500-H+B		Analysis Desc	ription:	4500H+B pH								
			Laboratory:		Services - Kan	isas City							
Associated Lab Sa	mples: 604099770	001, 6040997700	2, 60409977003, 60	409977004,	, 60409977005								
SAMPLE DUPLICA	TE: 3211222												
			60409979006	Dup		Max							
Para	meter	Units	Result	Result	RPD	RPD	Qualifiers						
pH at 25 Degrees (>	Std. Units	7.1	7	.5	6	5 D6,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.



QC Batch: 807422		Analysis	Method:	EF	PA 300.0		
QC Batch Method: EPA 300.0		-	Description:		0.0 IC Anion:	6	
		Laborato				Services - Kar	nsas City
Associated Lab Samples: 6040997	7001, 6040997700		•				2
METHOD BLANK: 3212221		Ma	trix: Water				
Associated Lab Samples: 6040997	7001, 6040997700	2, 6040997700	3, 6040997700	94, 60	409977005		
		Blank	Reportin	g			
Parameter	Units	Result	Limit		Analyze	d Quali	fiers
Chloride	mg/L		1.0	1.0	09/13/22 10		
Sulfate	mg/L	<	1.0	1.0	09/13/22 10):15	
METHOD BLANK: 3213161		Ma	trix: Water				
Associated Lab Samples: 6040997	7001, 6040997700	2, 6040997700	3, 6040997700	94, 60	409977005		
		Blank	Reportin	g			
Parameter	Units	Result	Limit		Analyze	d Quali	fiers
Chloride	mg/L	<	1.0	1.0	09/14/22 08	3:49	
Sulfate	mg/L	<'	1.0	1.0	09/14/22 08	3:49	
METHOD BLANK: 3214382		Ma	trix: Water				
	7001, 6040997700			94, 60	409977005		
Associated Lab Samples: 6040997		2, 6040997700 Blank	3, 6040997700 Reportin				
	7001, 6040997700 Units	2, 6040997700	3, 6040997700		Analyze		fiers
Associated Lab Samples: 6040997 Parameter Chloride	Units mg/L	2, 6040997700 Blank Result	3, 6040997700 Reportin Limit	g 1.0	Analyze 09/15/22 08	3:54	fiers
Associated Lab Samples: 6040997 Parameter	Units	2, 6040997700 Blank Result	3, 6040997700 Reportin Limit	g	Analyze	3:54	fiers
Associated Lab Samples: 6040997 Parameter Chloride	Units mg/L	2, 6040997700 Blank Result <	3, 6040997700 Reportin Limit 1.0	g 1.0	Analyze 09/15/22 08 09/15/22 08	3:54 3:54	fiers
Associated Lab Samples: 6040997 Parameter Chloride Sulfate LABORATORY CONTROL SAMPLE:	Units mg/L mg/L 3212222	2, 6040997700 Blank Result <` <` Spike	3, 6040997700 Reportin Limit 1.0 LCS	g 1.0 1.0	Analyze 09/15/22 08 09/15/22 08 LCS	3:54 3:54 % Rec	
Associated Lab Samples: 6040997 Parameter Chloride Sulfate	_ Units _ mg/L mg/L	2, 6040997700 Blank Result <	3, 6040997700 Reportin Limit 1.0	g 1.0 1.0	Analyze 09/15/22 08 09/15/22 08	3:54 3:54	fiers Qualifier
Associated Lab Samples: 6040997 Parameter Chloride Sulfate LABORATORY CONTROL SAMPLE: Parameter Chloride	Units mg/L mg/L 3212222 Units mg/L	2, 6040997700 Blank Result < < < <	3, 6040997700 Reportin Limit 1.0 LCS Result 4.7	g 1.0 1.0	Analyze 09/15/22 08 09/15/22 08 LCS % Rec 95	3:54 3:54 % Rec Limits 90-110	
Associated Lab Samples: 6040997 Parameter Chloride Sulfate LABORATORY CONTROL SAMPLE: Parameter	Units mg/L mg/L 3212222 Units	2, 6040997700 Blank Result < < < Spike Conc.	3, 6040997700 Reportin Limit 1.0 1.0 LCS Result	g 1.0 1.0	Analyze 09/15/22 08 09/15/22 08 LCS % Rec	3:54 3:54 % Rec Limits	
Associated Lab Samples: 6040997 Parameter Chloride Sulfate LABORATORY CONTROL SAMPLE: Parameter Chloride	Units mg/L mg/L 3212222 Units mg/L mg/L	2, 6040997700 Blank Result < - - - - - - - - - - - - - - - - - -	3, 6040997700 Reportin Limit 1.0 LCS Result 4.7 4.9	g 1.0 1.0	Analyze 09/15/22 08 09/15/22 08 LCS % Rec 95 98	3:54 3:54 % Rec Limits 90-110 90-110	
Associated Lab Samples: 6040997 Parameter Chloride Sulfate LABORATORY CONTROL SAMPLE: Parameter Chloride Sulfate LABORATORY CONTROL SAMPLE:	Units mg/L mg/L 3212222 Units mg/L mg/L 3213162	2, 6040997700 Blank Result < Spike Conc. 5 5 5	3, 6040997700 Reportin Limit 1.0 LCS Result 4.7 4.9 LCS	g 1.0 1.0	Analyze 09/15/22 08 09/15/22 08 LCS % Rec 95 98 LCS	3:54 3:54 % Rec Limits 90-110 90-110 % Rec	Qualifier
Associated Lab Samples: 6040997 Parameter Chloride Sulfate LABORATORY CONTROL SAMPLE: Parameter Chloride Sulfate	Units mg/L mg/L 3212222 Units mg/L mg/L	2, 6040997700 Blank Result < - - - - - - - - - - - - - - - - - -	3, 6040997700 Reportin Limit 1.0 LCS Result 4.7 4.9	g 1.0 1.0	Analyze 09/15/22 08 09/15/22 08 LCS % Rec 95 98	3:54 3:54 % Rec Limits 90-110 90-110	
Associated Lab Samples: 6040997 Parameter Chloride Sulfate LABORATORY CONTROL SAMPLE: Parameter Chloride Sulfate LABORATORY CONTROL SAMPLE:	Units mg/L mg/L 3212222 Units mg/L mg/L 3213162	2, 6040997700 Blank Result < Spike Conc. 5 5 5	3, 6040997700 Reportin Limit 1.0 LCS Result 4.7 4.9 LCS	g 1.0 1.0	Analyze 09/15/22 08 09/15/22 08 LCS % Rec 95 98 LCS	3:54 3:54 % Rec Limits 90-110 90-110 % Rec	Qualifie

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Project: TEC 322 LANDFILL CCR

Pace Project No.: 60409977

LABORATORY CONTROL SA	MPLE:	3214383			_		_					
_			Spike			LCS	% R					
Parameter		Units	Conc.	Res	sult	% Rec	Limi	ts (Qualifiers	_		
Chloride		mg/L		5	4.8	9	5	90-110				
Sulfate		mg/L		5	4.8	9	7	90-110				
MATRIX SPIKE & MATRIX SP	PIKE DUPI	LICATE: 3212	223 MS	MSD	3212224							
		60409918001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Мах	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Chloride	mg/L		25	25	24.2	25.4	82	87	80-120	5	15	
Sulfate	mg/L	27.5	25	25	49.2	51.2	87	95	80-120	4	15	
MATRIX SPIKE SAMPLE:		3212225										
			60409	979002	Spike	MS		MS	% Rec			
Parameter		Units	Re	esult	Conc.	Result	%	Rec	Limits		Qualit	iers
Chloride		mg/L		69.8	50		119	98	80	-120		
Sulfate		mg/L		376	250		655	112	00	-120		

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Project: Pace Project No.:	TEC 322 LANDFI 60409977	LL CCR										
QC Batch:	811017		Analy	ysis Method	d:	EPA 300.0						
QC Batch Method:	EPA 300.0			, ysis Descrij		300.0 IC An	ions					
				ratory:		Pace Analyt	ical Servic	es - Kansa	s City			
Associated Lab San	nples: 6040997	7001, 6040997700	2, 6040997	7003, 604					,			
METHOD BLANK:	3225332			Matrix: W	ater							
Associated Lab San	nples: 6040997	7001, 6040997700	2, 6040997	7003, 604	09977004,	604099770	05					
			Blai	nk l	Reporting							
Paran	neter	Units	Res	ult	Limit	Analy	/zed	Qualifier	S			
Fluoride		mg/L		<0.20	0.2	10/05/22	2 11:28					
LABORATORY CON	NTROL SAMPLE:	3225333	Spike	LC	c	LCS	% R	00				
Paran	neter	Units	Conc.	Res	-	% Rec	⁷⁶ Ki		Qualifiers			
Fluoride		mg/L	2	.5	2.5	100) (90-110		_		
MATRIX SPIKE & M	IATRIX SPIKE DU	PLICATE: 3225	334		322533	5						
			MS	MSD								
		60409975001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Unit	s Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Fluoride	mg/l	<0.20	2.5	2.5	2.1	2.2	77	81	80-120	5	15	M1
MATRIX SPIKE SAI	MPLE:	3225336										
			60409	979004	Spike	MS		MS	% Rec			
Paran	neter	Units	Re	sult	Conc.	Result	%	Rec	Limits		Qual	fiers
Fluoride		mg/L		<0.20	2.5		1.0	37	80	-120 M	1	

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: TEC 322 LANDFILL CCR

Pace Project No.: 60409977

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

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

H6 Analysis initiated outside of the 15 minute EPA required holding time.

- M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- R1 RPD value was outside control limits.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: TEC 322 LANDFILL CCR

Pace Project No.: 60409977

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60409977001	MW-1-090922	EPA 200.7	807376	EPA 200.7	807452
60409977002	MW-4-090922	EPA 200.7	807376	EPA 200.7	807452
60409977003	MW-5-090922	EPA 200.7	807376	EPA 200.7	807452
60409977004	MW-6-090922	EPA 200.7	807376	EPA 200.7	807452
60409977005	DUP-322LF-090922	EPA 200.7	807376	EPA 200.7	807452
60409977001	MW-1-090922	EPA 3010	807379	EPA 6010	807450
60409977002	MW-4-090922	EPA 3010	807379	EPA 6010	807450
60409977003	MW-5-090922	EPA 3010	807379	EPA 6010	807450
60409977004	MW-6-090922	EPA 3010	807379	EPA 6010	807450
60409977005	DUP-322LF-090922	EPA 3010	807379	EPA 6010	807450
60409977001	MW-1-090922	EPA 200.8	807377	EPA 200.8	807449
60409977002	MW-4-090922	EPA 200.8	807377	EPA 200.8	807449
60409977003	MW-5-090922	EPA 200.8	807377	EPA 200.8	807449
60409977004	MW-6-090922	EPA 200.8	807377	EPA 200.8	807449
60409977005	DUP-322LF-090922	EPA 200.8	807377	EPA 200.8	807449
60409977001	MW-1-090922	SM 2540C	807820		
60409977002	MW-4-090922	SM 2540C	807820		
60409977003	MW-5-090922	SM 2540C	807820		
60409977004	MW-6-090922	SM 2540C	808022		
60409977005	DUP-322LF-090922	SM 2540C	808022		
60409977001	MW-1-090922	SM 4500-H+B	807176		
60409977002	MW-4-090922	SM 4500-H+B	807176		
60409977003	MW-5-090922	SM 4500-H+B	807176		
60409977004	MW-6-090922	SM 4500-H+B	807176		
60409977005	DUP-322LF-090922	SM 4500-H+B	807176		
60409977001	MW-1-090922	EPA 300.0	807422		
60409977001	MW-1-090922	EPA 300.0	811017		
60409977002	MW-4-090922	EPA 300.0	807422		
60409977002	MW-4-090922	EPA 300.0	811017		
60409977003	MW-5-090922	EPA 300.0	807422		
60409977003	MW-5-090922	EPA 300.0	811017		
60409977004	MW-6-090922	EPA 300.0	807422		
60409977004	MW-6-090922	EPA 300.0	811017		
60409977005	DUP-322LF-090922	EPA 300.0	807422		
60409977005	DUP-322LF-090922	EPA 300.0	811017		

			W0#:60409977
Pace		FRM-LENE-0009_Samp	ILE BEIL II ISBESIE IS SII
	Revision: 2	Effective Date: 01/12/20	60409977
Client Name: Ever9Y		alsInc.	
Courier: FedEx UPS	□ VIA □ Clay		Pace 🗆 Xroads 🗆 Client 🗹 Other 🗆
Tracking #:		Pace Shipping Label Used	
Custody Seal on Cooler/Box F			
Packing Material: Bubble Thermometer Used: 1299		Bags □	None D Other DCPL
Cooler Temperature (°C): A	s-readCor		
Temperature should be above freeze	ing to 6°C	T	i di terretti d
Chain of Custody present:		⊡erges □No □N/A	
Chain of Custody relinquished:		₩Yes □No □N/A	12
Samples arrived within holding ti	ime:	₩Yes □No □N/A	
Short Hold Time analyses (<72	2hr):	□Yes INNO □N/A	
Rush Turn Around Time reque	ested:	□Yes ŒNo □N/A	
Sufficient volume:		I Yes □No □N/A	
Correct containers used:		I ∭Yes □No □N/A	
Pace containers used:		ØYes □No □N/A	
Containers intact:			
Unpreserved 5035A / TX1005/10)06 soils frozen in 48br		
Filtered volume received for diss			
Sample labels match COC: Date			
Samples contain multiple phases			
Containers requiring pH preserva (HNO₃, H₂SO₄, HCI<2; NaOH>9 Sulfi			ist sample IDs, volumes, lot #'s of preservative and the late/time added.
Exceptions: VOA, Micro, O&G, KS 1 Cyanide water sample checks:		LOT#: 55/92	Sample nWG initia PH: 5.0 Final PH:
Lead acetate strip turns dark? (R	ecord only)	□Yes □No	Pute: 9/9/22 Time: 1715
Potassium iodide test strip turns l) 🛛 Yes 🗆 No	
Trip Blank present:		□Yes □No ☑N/A	
Headspace in VOA vials (>6mm)):	□Yes □No 10/N/A	
Samples from USDA Regulated A	Area: State:	□Yes □No ONA	
Additional labels attached to 5035			
Client Notification/ Resolution:		COC to Client? Y / N	Field Data Required? Y / N
Person Contacted:	C	Date/Time:	• • • • • • • • • • • • • • • • • • •
Comments/ Resolution:		121	

Project Manager Review:

Date:

Qualtrax Document ID: 30468



CHAIN-OF-CUSTODY / Analytical Request Document

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

Section Require	ו A d Client Information:	Section B Section C Required Project Information: Invoice Information:																				Page:	1	of	1						
Company		Report To: N			ls. Samant	ha Karev	Danielle	Ohe	nvo Atter	ice Info		_	ounts	Day	vable				-	_							L	ugo.			
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		Purchase Or								Quote rence:] r	U	ST			RCR	A		F	OTHER	
	785-575-8113 Fax:	Project Name		EC 322	Landfill CC	R			Pace Mana	Projec iger:	st /	Alice	e Spil	ler 9	913-5	563-	140:	3			s	ite L	ocat	ion							
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2	MW-4-090922		wт	G .		09/09/22	11:35		3	2		1					>	x	×	X	X	x						Π			
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5	DUP-322LF-090922	,	wτ	G .	5.55	09/09/22	10:15	~	3	2		1					5	x	x	x	x	x						Π			
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	tal Metals*: B, Ca, Ba	Jason R. Franks 9/9/22 14:00											9	10	7	16	30	0,	4	Y	K	K									
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Page 29 of						PRINT Nam				yn R.	Fra	nks	_	/		_		_	_	-							-	Temp in "C	Received on Ice (Y/N)	stody d Cool (/N)	es Inté (/N)
9 of :					1	SIGNATUR			1	en	1	2	70	a	k			DATE MM/					9/	9/22	2			em	Rece	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
3									1				1																		

4

A.

DC#_Title: ENV-FRM-LENE-0001_Sample Container Count Revision: 3 | Effective Date: | Issued by: Lenexa

Profile # 9657,1 client: Eversy Kansas Central, Inc. _____ site: TEC 322 Landfill CCR Notes WGDU DG9Q DG9M WGKU VG9H DG9H DG9U DG9B AG1H WPDU VG9U BG1U AG1U AG2U AG4U AG5U AG3S JGFU BP1U BP2U BP1N Matrix BP3U BP3N BP3F BP3S BP3C ZPLC BP3Z COC Other Line Item WT 1 1 1 1 2 з 4 K J 5 L d 6 7 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 HCI 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	AGOU	100mL unores amber glass	BP1Z	1L NaOH, Zn Acetate	C	Air Cassettes				
DG9T	40mL Na Thio amber vial	AG1H	1L HCI 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 HCI 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						
/G9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Acetate		NI - 4 - 2				
3G1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass	BP3C	250mL NaOH plastic		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

BP4S

WPDU

125mL HNO3 plastic

125mL H2SO4 plastic

16oz unpresserved plstic

Work Order Number:

60409977



CHAIN-OF-CUSTODY / Analytical Request Document

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

	d Client Information:			Section E Required F				Invoi	tion C ce Info	ormat									_						Pa	age:		of						
Compan	_		TRAL, INC.	Report To:								Atten			Acco		-																	
Address				Сору То:			-		ney,Melis	sa Miche	els		pany N						SAS	CENT	RAL	_, IN(^C RE	GUI	ATC	DRY	AGE	NCY						
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Email To	doberbroeckli	ng@haleya	lldrich.com	Purchase C	Order I	No.:						Pace Refer	Quote ence:											U	ST		R	CRA				OTHER		
Phone:	507-251-2232	Fax:		Project Nar	me:	TEC	322 Lan	dfill CCR				Pace Mana	Project ger:		Alice	Spill	er 9	13-56	63-14	03			s	Site L	ocati	on		140						
Reques	ted Due Date/TAT:			Project Nur	mber:								Profile	#: Q	9657	11			_	_					STAT			KS		_ [
											-		-						→	Re	eque	ested	l Ana	alysi	s Filt	tered	1 (Y/I	(N	_					
	Section D Required Client Information	n	Valid Matrix C	odes CODE	o left)	ИР)		COLL	ECTED					F	Prese	rvati	ves		1 N /A															
ITEM #	(A-Z, 0-9 /	CA-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE DRINKING WATE WATER WASTE WATEI PRODUCT SOIL/SOLID OIL WIPE AIR OTHER TISSUE			MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COMPOSI		COMPO END/Gi		SAMPLE TEMP AT COLLECTION	OF CONTAINERS	npreserved	2SO4	HNO ₃ HCI	NaOH	a ₂ S ₂ O ₃	Methanol Other	Analysis Test 🖡	200.7 Total Metals*	00.8 Total Metals**	4500 H+B PH 300: CL F SO4	C TD(6010 Lithium						Residual Chlorine (Y/N)				
				MATRI MATRI MATRI SAMPL HOD HUNO SAMPL HUNO SAMPL HUNO SAMPL HUNO SAMPL HUNO SAMPL HUNO SAMPL HUNO SAMPL A A A A A A A A A A A A A A A A A A A								4 6 0 0	5 6	00	\vdash					2	Pace	Project I	No./ Lab	o I.D.										
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						SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):												Ten		Rec	Custo Coo	Same	(N/X)											