2022 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

CCR LANDFILL AND LOWER AQC IMPOUNDMENT
LA CYGNE GENERATING STATION
LA CYGNE, KANSAS

Presented To:
Evergy Metro, Inc.

SCS ENGINEERS

27217233.22 | January 2023

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Overland Park, Kansas 66210
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Public

CERTIFICATIONS

I, John R. Rockhold, being a qualified groundwater scientist and Professional Geologist in the State of Kansas, do hereby certify that the 2022 Annual Groundwater Monitoring and Corrective Action Report for the CCR Landfill and Lower AQC Impoundment at the La Cygne Generating Station was prepared by me or under my direct supervision and fulfills the requirements of 40 CFR 257.90(e).

JOHN R. ROCKHOLD
LICENSED
29
1-31-23
KANSAS
PROFESSIONAL GEOLOGIST

John R. Rockhold, P.G.

SCS Engineers

I, Douglas L. Doerr, being a qualified licensed Professional Engineer in the State of Kansas, do hereby certify that the 2022 Annual Groundwater Monitoring and Corrective Action Report for the CCR Landfill and Lower AQC Impoundment at the La Cygne Generating Station was prepared by me or under my direct supervision and fulfills the requirements of 40 CFR 257.90(e).

DOUGLAS L. DOERR
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KANSAS
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Douglas L. Doerr, P.E.

SCS Engineers

Revision Number	Revision Date	Revision Sections	Summary of Revisions
0	January 31, 2023	NA	Original

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Appendices

1 INTRODUCTION

This 2022 Annual Groundwater Monitoring and Corrective Action Report was prepared to support compliance with the groundwater monitoring requirements of the "Coal Combustion Residuals (CCR) Final Rule" (Rule) published by the United States Environmental Protection Agency (USEPA) in the *Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule*, dated April 17, 2015 (USEPA, 2015), and subsequent revisions. Specifically, this report was prepared for Evergy Metro, Inc. (Evergy) to fulfill the requirements of 40 CFR 257.90 (e). The applicable sections of the Rule are provided below in *italics*, followed by applicable information relative to the 2022 Annual Groundwater Monitoring and Corrective Action Report for the CCR Landfill and Lower AQC Impoundment at the La Cygne Generating Station.

1.1 § 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 § 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 CCR Landfill and Lower AQC Impoundment were operating under a detection monitoring program in compliance with § 257.94.

1.1.2 § 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 CCR Landfill and Lower AQC Impoundment were operating under a detection monitoring program in compliance with § 257.94.

1.1.3 § 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):

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

Monitoring Event	Monitoring Well	Constituent	ASD
Fall 2021	MW-803	Sulfate	Successful
Spring 2022	MW-13	Chloride	Successful
Spring 2022	MW-803	Chloride	Successful
Spring 2022	MW-803	Sulfate	Successful

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

Not applicable because an assessment monitoring program was not initiated.

1.1.4 § 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:

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

Not applicable because there was no assessment monitoring conducted.

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

Not applicable because there was no assessment of corrective measures initiated for the CCR Unit.

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

Not applicable because there was no assessment of corrective measures initiated for the CCR Unit.

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

Not applicable because there was no assessment of corrective measures initiated for the CCR Unit.

1.1.5 § 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

Not applicable because corrective measures are not required.

1.1.6 § 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.

Not applicable because corrective measures are not required.

2 BACKGROUND

To further characterize the on-site hydro-geological conditions, the following background information is provided in this section of the report:

- Geologic and hydrogeologic setting
- CCR Rule monitoring system

The site geology and hydrogeology was characterized by AECOM in the "*Detailed Hydrogeologic Site Characterization Report*" (DSI) prepared in October 2017 (AECOM, 2017). As described in the characterization report, the generalized geology underlying the CCR Landfill and Lower AQC Impoundment includes the following, from the surface down:

1. Native residual clay with some discrete sand beds or lenses (semi confining to confining unit)
2. Unsaturated or relatively low-yielding shale (semi-confining to confining unit)
3. Saturated unweathered to highly weathered shale (Holdenville Shale) with relatively higher permeability (uppermost aquifer)
4. Relatively unweathered lower permeability shale with sparse limestone and coal units interbedded (lower confining bedrock unit)

2.1 GEOLOGIC AND HYDROGEOLOGIC SETTING

2.1.1 Overlying Geologic Units

The material overlying the aquifer beneath the CCR Landfill and Lower AQC Impoundment is primarily unconsolidated clay materials and unsaturated heterogeneous shale bedrock. The uppermost aquifer consists of saturated relatively higher permeable zones within the heterogeneous shale bedrock.

2.1.1.1 Unconsolidated Materials

The unconsolidated overburden material is primarily stiff to very stiff, low to high plastic clay, silty clays, and some clayey sand or sandy clay. Some borings also encountered surficial fill material at several locations on site. The thickness of the clay ranges from approximately 10 to 35 ft., depending on the ground surface elevation and the thickness of the overlying fill. The vertical hydraulic conductivity of the clay unit was measured by conducting falling head permeability laboratory tests from representative samples collected from within the clay unit. The results of these tests indicated a calculated hydraulic conductivity range of 5.7 x 10^{-07} to 1.4 x 10^{-05} cm/sec, as summarized in the table below. The porosity of the clay unit is estimated to be 34 - 60%, and the effective porosity of the clay unit is estimated to be 1 - 20%, based on accepted literature values after Domenico and Schwartz, 1990.

2.1.1.2 Bedrock

As stated above, the uppermost aquifer consists of saturated, relatively higher permeable zones within the heterogeneous shale bedrock. Overlying the uppermost aquifer, there is unsaturated or relatively low yielding heterogeneous shale bedrock. The bedrock as a whole is predominantly heterogeneous shale with thin interbedded sandstone and/or limestone and/or coal at some locations. Lateral facies changes and vertical gradational changes are common and limit lateral correlation between borings. Overall, the shale is described as moderate to highly plastic with calcareous and sandy zones varying from brown and weathered to gray and unweathered.

The thickness of the unsaturated or relatively low yielding heterogeneous shale bedrock overlying the uppermost aquifer ranges from approximately 5 to 25 ft., depending on the depth of the overlying clay or fill. The vertical hydraulic conductivity of the shale bedrock was not directly measured. However, based on it being unsaturated or relatively low yielding, the vertical hydraulic conductivity is estimated to be as low as or lower than that of the overlying clay. Therefore, it is likely less than the clay range of 5.7×10^{-07} to 1.4×10^{-05} cm/sec and possibly as low as the range identified for shale within the literature, 1×10^{-11} to 2×10^{-07} cm/sec. The porosity of the shale is estimated to be 1 - 10%, and the effective porosity is estimated to be 0.5 - 5%, based on accepted literature values after Domenico and Schwartz, 1990.

2.1.2 Aquifer Characterization

Based on the site characterization activities, the uppermost aquifer beneath the CCR Landfill and Lower AQC Impoundment consists of select saturated zones within the heterogeneous shale bedrock that have relatively higher permeability than the shale above and below it. It is probable that the relatively higher permeability zones are the calcareous and sandy zones or undifferentiated limestone or sandstone interbeds. It is believed that these zones are the primary groundwater-bearing strata and the uppermost aquifer. These zones were identified through drilling observations and installation and testing of piezometer clusters at multiple locations. Although all the piezometers were low-yielding, the piezometers that intercepted the higher-yielding productive zones were selected as most closely satisfying the definition of the uppermost aquifer below the CCR unit.

The uppermost aquifer is a confined and/or locally semi-confined aquifer believed to be roughly 5- to 10-ft thick. The hydraulic conductivity of the aquifer was measured by conducting hydraulic slug tests, which indicated an estimated hydraulic conductivity range of 6.3×10^{-05} cm/sec to 1.0×10^{-04} cm/sec. However, these values are higher than would be expected based on the overall low-yield nature of the aquifer and the hydraulic conductivity could be less than reported. The porosity and effective porosity of the aquifer has been estimated, and evidence indicates it is greater than the overlying and underlying shale and likely greater than the overlying clay. The estimated seepage velocity of the aquifer based on the above hydraulic conductivity and an estimated effective porosity of 5 percent ranges from about 6.3×10^{-06} to 1.0×10^{-05} cm/sec.

Based on the water level measurements in temporary piezometers and monitoring wells, the groundwater flow direction is predominantly west-southwest toward La Cygne Lake. However, flow under the northern portion of the CCR Landfill appears to be to the southeast prior to turning and flowing to the southwest. Flow beneath the central eastern portion of the CCR Landfill has northwest, west and southwest components to the overall west-southwest flow direction.

2.1.3 Lower Boundary Confining Geologic Unit

The lower boundary confining geologic unit is the relatively lower permeability shale bedrock below the uppermost aquifer as defined above. Based on boring logs, shale is present below the uppermost aquifer at the CCR Landfill and Lower AQC Impoundment. The thickness of the shale unit is at least 15 to 20 feet, based on several boring logs and piezometer installations. The hydraulic conductivity is estimated to range from 1×10^{-11} to 2×10^{-07} cm/sec and the porosity and effective porosity are estimated to range from 1 10% and 0.5 – 5%, respectively, based on accepted literature values for shale after Walton, 1970 and 1988, and Domenico and Schwartz, 1990.

2.1.4 Characteristics of Geologic Units

A summary table of the geologic units including the estimated or calculated hydraulic conductivities, porosities, and effective porosities for each geologic unit encountered at the CCR Landfill and Lower AQC Impoundment is provided below.

Unit	Classification / Lithology	Hydraulic Conductivity(1)	Porosity(2)	Effective Porosity(2)
Overlying Unconsolidated Geologic Unit	Low to High Plastic Clay	5.7×10^{-07} to 1.4×10^{-05} cm/s(1	34 – 60%	1 – 20%(2)
Unsaturated or Relatively Low-Yielding Bedrock Upper Confining or Semi-Confining Unit	Unweathered to Weathered Heterogeneous Shale	1×10^{-11} to 2×10^{-07} cm/s)	1 – 10%	0.5 – 5
Saturated Relatively High-Yielding Bedrock Aquifer	Unweathered to Weathered Heterogeneous Shale	6.3×10^{-05} to 1.0×10^{-04} cm/s	Greater than overlying and underlying units	Greater than overlying and underlying units
Bedrock Lower Confining Unit	Unweathered Heterogeneous Shale	1×10^{-11} to 2×10^{-07} cm/s	1 – 10%(2)	0.5 – 5

Notes: (1) Hydraulic Conductivities of the clay are from laboratory permeability tests; hydraulic conductivities of the aquifer are from slug tests; hydraulic conductivities of the upper and lower confining unit shale were chosen based on literature values after Domenico and Schwartz, 1990.

(2) Porosities and effective porosities chosen based on literature values after Walton, 1970 and 1988, and Domenico and Schwartz, 1990.

In summary, based on the site characterization, the CCR Landfill and Lower AQC Impoundment is underlain by low permeability unconsolidated materials and heterogeneous shale bedrock with relatively higher permeability zones believed to be calcareous and sandy zones or undifferentiated limestone or sandstone interbeds. The uppermost aquifer is identified as the relatively higher permeability saturated zone within the heterogeneous shale bedrock, which is relatively higher yielding. The aquifer appears to be approximately 5- to 10-ft thick and locally semi-confined to confined by relatively lower permeability residual clay and shale bedrock acting as the upper confining unit, and a relatively lower permeability primarily shale bedrock on the bottom. The difference in the hydraulic conductivity between the aquifer and the confining units is estimated to be approximately two to seven orders of magnitude.

2.2 CCR RULE MONITORING SYSTEM

A multiunit, eleven well groundwater monitoring system is used to monitor the CCR Landfill and Lower AQC Impoundment. The groundwater monitoring system consists of four upgradient wells and seven downgradient wells. A site map with an aerial image showing the CCR Landfill and Lower AQC Impoundment and compliance monitoring wells with identification numbers for the CCR Landfill and Lower AQC Impoundment groundwater monitoring program is provided as **Figure 1** in **Appendix A.** The CCR Landfill and Lower AQC Impoundment are two separate CCR units that are monitored with one monitoring system due to their close proximity and configuration relative to groundwater flow. The CCR Landfill and the Lower AQC Impoundment are separated by a narrow surface water run-on/off control berm that runs nearly perpendicular to groundwater flow. Groundwater passing the boundary of the CCR Landfill flows beneath the Lower AQC

Impoundment. The multiunit system was designed to detect monitored constituents at the downgradient waste boundary of the combined area of the CCR Landfill and Lower AQC Impoundment.

Potentiometric surface maps for the uppermost aquifer indicating the groundwater flow direction beneath the CCR Landfill and Lower AQC Impoundment for May 2022 and November 2022 are provided as **Figure 2** and **Figure 3,** respectively, in **Appendix A**. It should be noted that because of the semi-confined to confined aquifer conditions, the potentiometric surface map is not representative of the top of groundwater in the aquifer. The top of groundwater in the aquifer is the same as the contact between the top of the aquifer material and the bottom of the upper confining unit.

Although groundwater levels measured in the wells may extend up and into the low permeability shale and clay, the measured groundwater level is believed to be representative of the potentiometric head and not the water table elevation. None of the boring logs from the AECOM site characterization noted encountering groundwater during drilling. However, several boring logs from previous investigations by Woodward-Clyde and URS in 1978, 1979, 1981, 2005, and 2010 noted encountering groundwater at greater depths (or lower elevations) during drilling and then the groundwater rising in the borehole, piezometer, or well to higher elevations. For one of the wells, groundwater was even noted as rising above ground surface within the PVC well casing. This rise of groundwater in the well above the elevations where it was encountered during drilling and above the screen interval to elevations within the low permeability shale and clay, indicates semi-confining to confining conditions and represents the potentiometric head of the aquifer and not the water table.

Based on review of the historic topographic map of the area prior to the station being constructed, the base of the impoundment ranges from approximately 850 feet MSL to the east and 830 feet MSL to the west. A review of hydrostratigraphic cross sections in the AECOM characterization report indicate the maximum uppermost aquifer elevation beneath the impoundment is approximately 840 feet MSL to the east and approximately 813 feet MSL to the west. Based on this review, the base of the CCR Landfill and Lower AQC Impoundment appears to be approximately 10 feet above the upper limit of the uppermost aquifer, therefore the base of the CCR Landfill and Lower AQC Impoundment was constructed no less than five feet above the upper limit of the uppermost aquifer.

3 § 257.90(E) ANNUAL REPORT REQUIREMENTS

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

3.1 § 257.90(E)(1) SITE MAP

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;

A site map with an aerial image showing the CCR Landfill and Lower AQC Impoundment and all background (or upgradient) and downgradient monitoring wells with identification numbers for the CCR Landfill and Lower AQC Impoundment groundwater monitoring program is provided as Figure 1 in Appendix A.

3.2 § 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 new monitoring wells were installed and no wells were decommissioned as part of the CCR groundwater monitoring program for the CCR Landfill and Lower AQC Impoundment in 2022.

3.3 § 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;

Only detection monitoring was required to be conducted during the reporting period (2022). Samples collected in 2022 were collected and analyzed for Appendix III detection monitoring constituents. Results of the sampling events are provided in Appendix B, Table 1 (Appendix III Detection Monitoring Results), and Table 2 (Detection Monitoring Field Measurements). These tables include Fall 2021 semiannual detection monitoring event verification sample data collected and analyzed in 2022; Spring 2022 semiannual detection monitoring data, verification sample data; and, the initial Fall 2022 semiannual detection monitoring data. The dates of sample collection and the monitoring program requiring the sample are also provided in these tables.

3.4 § 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

There was no transition between monitoring programs in 2022. Only detection monitoring was conducted in 2022.

3.5 § 257.90(E)(5) OTHER REQUIREMENTS

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

A summary of potentially required information and the corresponding section of the Rule is provided in the following sections. In addition, the information, if applicable, is provided.

3.5.1 § 257.90(e) Program Status

Status of Groundwater Monitoring and Corrective Action Program.

The groundwater monitoring and corrective action program is in detection monitoring.

Summary of Key Actions Completed.

a. completion of the Fall 2021 verification sampling and analyses per the certified statistical method,

b. completion of the statistical evaluation of the Fall 2021 semiannual detection monitoring sampling and analysis event per the certified statistical method,

c. completion of the 2021 Annual Groundwater Monitoring and Corrective Action Report,

d. completion of a successful alternative source demonstration for the Fall 2021 semiannual detection monitoring sampling and analysis event,

e. completion of the Spring 2022 semiannual detection monitoring sampling and analysis event with subsequent verification sampling per the certified statistical method,

f. completion of the statistical evaluation of the Spring 2022 semiannual detection monitoring sampling and analysis event per the certified statistical method,

g. initiation of the Fall 2022 semiannual detection monitoring sampling and analysis event, and

h. completion of a successful alternative source demonstration for the Spring 2022 semiannual detection monitoring sampling and analysis event.

Description of Any Problems Encountered.

No noteworthy problems were encountered.

Discussion of Actions to Resolve the Problems.

Not applicable because no noteworthy problems were encountered.

Projection of Key Activities for the Upcoming Year (2023).

Completion of verification sampling and data analysis, and the statistical evaluation of Fall 2022 detection monitoring sampling and analysis event, and, if required, alternative source demonstration(s). Semiannual Spring and Fall 2023 groundwater sampling and analysis. Completion of the statistical evaluation of the Spring 2023 detection monitoring sampling and analysis event, and, if required, alternative source demonstration(s).

3.5.2 § 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).

Not applicable because no alternative monitoring frequency for detection monitoring and certification was pursued.

3.5.3 § 257.94(e)(2) Detection Monitoring Alternate Source Demonstration

Demonstration that a source other than the CCR unit caused the statistically significant increase (SSI) over background levels for a constituent or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. In addition, certification of the demonstration is to be included in the annual report.

The following demonstration report is included as **Appendix C:**

C.1 CCR Groundwater Monitoring Alternative Source Demonstration Report November 2021 Groundwater Monitoring Event, CCR Landfill and Lower AQC Impoundment, La Cygne Generating Station (May 2022).

C.2 CCR Groundwater Monitoring Alternative Source Demonstration Report May 2022 Groundwater Monitoring Event, CCR Landfill and Lower AQC Impoundment, La Cygne Generating Station (December 2022).

3.5.4 § 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 the approval from EPA where EPA is the permitting authority in the annual groundwater monitoring and corrective action report required by § 257.90(e).*

Not applicable because there was no assessment monitoring conducted.

3.5.5 § 257.95(d)(3) Assessment Monitoring Concentrations and Groundwater Protection Standards

Include the concentrations of Appendix III and detected Appendix IV constituents from the assessment monitoring, the established background concentrations, and the established groundwater protection standards.

Not applicable because there was no assessment monitoring conducted.

3.5.6 § 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. 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.

Not applicable because there was no assessment monitoring conducted.

3.5.7 § 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 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.

Not applicable because there was no assessment monitoring conducted.

3.6 § 257.90(E)(6) OVERVIEW 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.

§ 257.90(e)(6) is addressed in Section 1.1 of this report.

4 SUPPLEMENTAL INFORMATION AND DATA

In addition to the requirements listed in 40 CFR 257.90(e), supplemental information has been included in this section in recognition of comments received by Evergy from the USEPA on January 11, 2022. The USEPA indicated in their comments that the GWMCA Report contain the following:

- Results of laboratory analysis of groundwater or other environmental media samples for 40 CFR 257 Appendix III and Appendix IV constituents or other constituents, such as those supporting characterization of site conditions that may ultimately affect a remedy.
- Required statistical analysis performed on laboratory analysis results; and
- Calculated groundwater flow rate and direction.

This information is not specifically referred to in 40 CFR 257.90(e) for inclusion in the GWMCA Reports; however, it is routinely collected, determined and maintained in Evergy's files and is being provided with in this GWMCA report. This supplemental information and data are provided as specified below:

- Laboratory Analytical Reports (Appendix D):

  Includes laboratory data packages with supporting information such as case narrative, sample and method summary, analytical results, quality control, and chain-of-custody documentation. The laboratory data packages for the following sampling events are provided:

  - January 2022 – First verification sampling for the Fall 2021 detection monitoring event.
  - March 2022 – Second verification sampling for the Fall 2021 detection monitoring event.
  - May 2022 – Spring 2022 semiannual detection monitoring sampling event.
  - July 2022 – First verification sampling for the Spring 2022 detection monitoring sampling event.
  - August 2022 - Second verification sampling for Spring 2022 detection monitoring sampling event.
  - November 2022 - Fall 2022 semiannual detection monitoring sampling event.

- Statistical Analyses (Appendix E):

  Includes summary of statistical results, prediction limit plots, prediction limit background data, detection sample results, first and second verification re-sample results (when applicable), extra sample results for pH (collected as part of the approved sampling procedures), input parameters, and a Prediction Limit summary table. Statistical analyses completed in 2022 included the following:

- Fall 2021 semiannual detection monitoring statistical analyses.
- Spring 2022 semiannual detection monitoring statistical analyses.

- Groundwater Potentiometric Surface Maps (**Appendix A**):

  Includes revised groundwater potentiometric surface maps with the measured groundwater elevations at each well and the generalized groundwater flow direction and the calculated groundwater flow rate. Maps for the following sampling events are provided:

  - Figure 2 - Spring 2022 semiannual detection monitoring sampling event.
  - Figure 3 - Fall 2022 semiannual detection monitoring sampling event.

5 GENERAL COMMENTS

This report has been prepared and reviewed under the direction of a qualified groundwater scientist and qualified professional engineer. The information contained in this report is a reflection of the conditions encountered at the La Cygne Generating Station at the time of fieldwork. This report includes a review and compilation of the required information and does not reflect any variations of the subsurface, which may occur between sampling locations. Actual subsurface conditions may vary and the extent of such variations may not become evident without further investigation.

Conclusions drawn by others from the result of this work should recognize the limitation of the methods used. Please note that SCS Engineers does not warrant the work of regulatory agencies or other third parties supplying information used in the assimilation of this report. This report is prepared in accordance with generally accepted environmental engineering and geological practices, within the constraints of the client's directives. It is intended for the exclusive use of Evergy Metro, Inc. for specific application to the La Cygne Generating Station CCR Landfill and Lower AQC Impoundment. No warranties, express or implied, are intended or made.

APPENDIX A

FIGURES

LEGEND

CCR UNIT BOUNDARY (APPROXIMATE LIMITS OF LOWER AQC IMPOUNDMENT)

MW-703 CCR GROUNDWATER MONITORING SYSTEM WELLS

NOTES:

1. KDHE FACILITY PERMIT AND LANDFILL PERMIT BOUNDARIES VARY FROM THAT SHOWN.
2. GOOGLE EARTH IMAGE DATED MARCH 2020. BOUNDARY AND MONITOR WELL LOCATIONS ARE APPROXIMATE.
3. BOUNDARY AND MONITOR WELL LOCATIONS ARE PROVIDED BY AECOM.

800 0 800 1600

SCALE FEET

REV.	DATE	CK. BY
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-

SHEET TITLE
SITE MAP
CCR LANDFILL & LOWER AQC IMPOUNDMENT
CCR GROUNDWATER MONITORING SYSTEM

PROJECT TITLE
2022 CCR GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

CLIENT
EVERGY METRO, INC
LA CYGNE GENERATING STATION
LA CYGNE, KANSAS

SCS ENGINEERS
8575 W. 110th St, Ste. 100
Overland Park, Kansas 66210
PH. (913) 681-0030 FAX. (913) 681-0012

PROJ. NO. 27217233.20
DSN. BY: ALR
DWN. BY: ALR
CHK. BY: JF
Q/A RVW BY: JRR
PROJ. MGR: JRR

CADD FILE: LA CYGNE LF UAQC FIG 1_2021.DWG

DATE: 1/23/2023

FIGURE NO. 1

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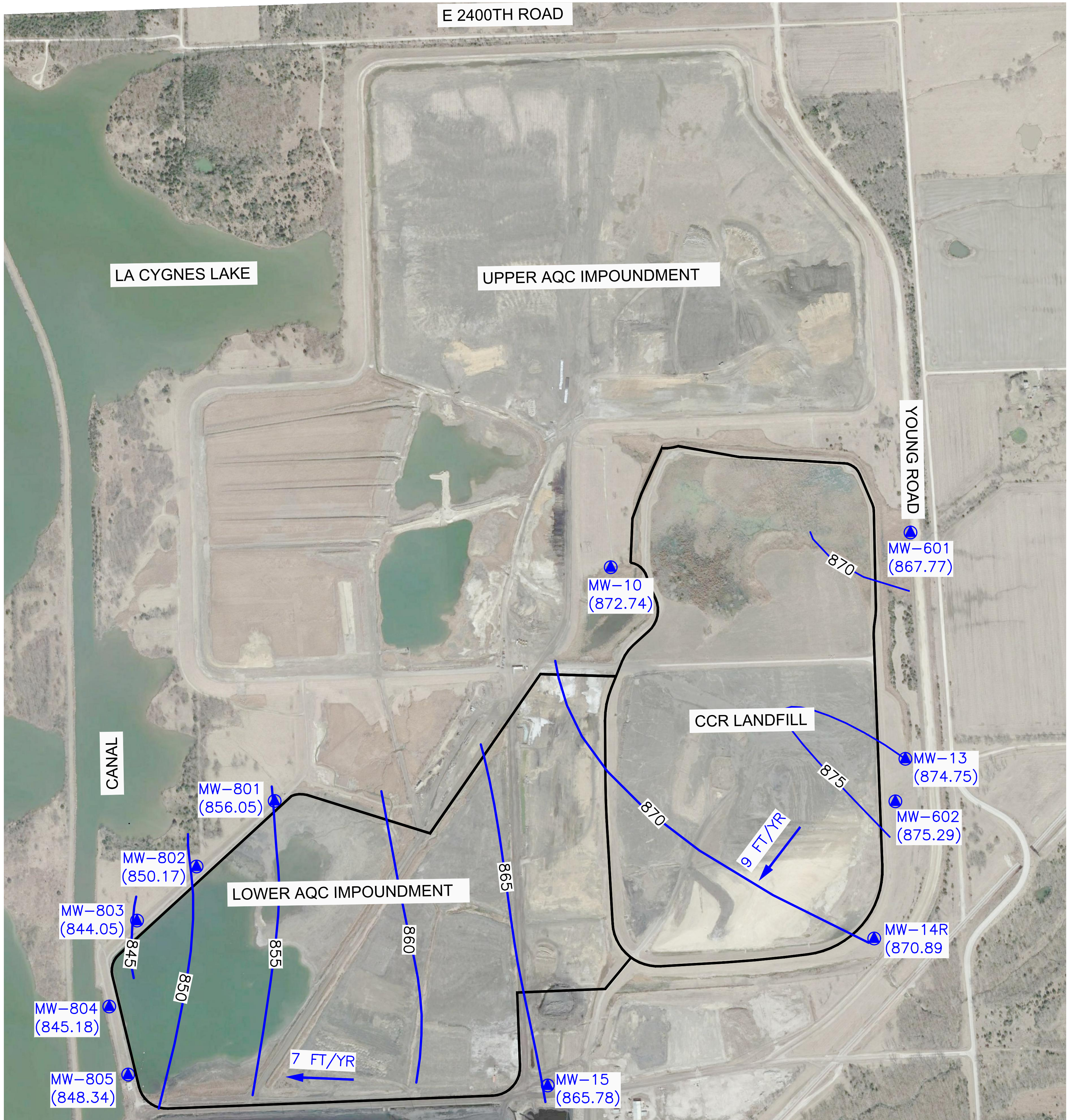

LEGEND

CCR UNIT BOUNDARY (APPROXIMATE LIMITS OF UPPER AQC IMPOUNDMENT)

MW-703 (877.00) CCR GROUNDWATER MONITORING SYSTEM WELLS (GROUNDWATER ELEVATION)

-875- GROUNDWATER POTENTIOMETRIC SURFACE ELEVATIONS (REPRESENTATIVE FOR THIS UNIT)

7 FT/YR DIRECTION OF GROUNDWATER FLOW AND CALCULATED GROUNDWATER FLOW RATE (FEET/YEAR)

NOTES:

1. KDHE FACILITY PERMIT AND LANDFILL PERMIT BOUNDARIES VARY FROM THAT SHOWN.
2. GOOGLE EARTH IMAGE DATED MARCH 2020. BOUNDARY AND MONITOR WELL LOCATIONS ARE APPROXIMATE.
3. BOUNDARY AND MONITOR WELL LOCATIONS ARE PROVIDED BY AECOM.
4. WATER LEVEL MEASUREMENTS COLLECTED MAY 9, 2022.

800 0 800 1600

SCALE FEET

REV.	DATE	CK. BY
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△	-	-

SHEET TITLE
POTENTIOMETRIC SURFACE MAP (MAY 2022)
CCR LANDFILL - LAQC IMPOUNDMENT

PROJECT TITLE
2022 GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

CLIENT
EVERGY METRO, INC
LA CYGNE GENERATING STATION
LA CYGNE, KANSAS

SCS ENGINEERS
8575 W. 110th St, Ste. 100
Overland Park, Kansas 66210
PH. (913) 681-0030 FAX. (913) 681-0012

PROJ. NO. 27217233.22 | DWN. BY: MBJ | Q/A RVW BY: JRR
DSN. BY: DAW | CHK. BY: JF | PROJ. MGR: JRR

CADD FILE: LA CYGNE LF__ MAY 2022.DWG

DATE: 1/23/2023

FIGURE NO. 2

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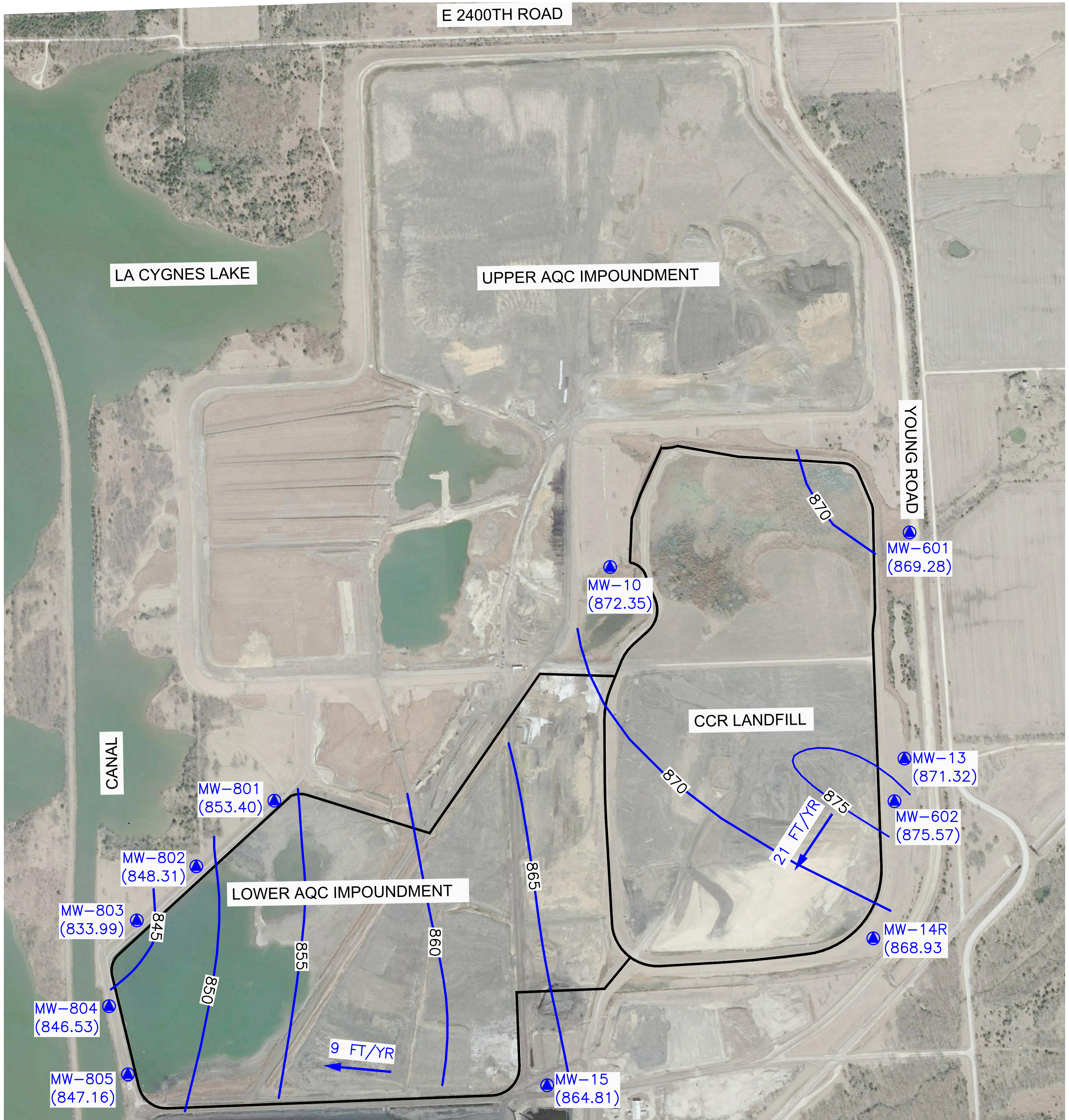

LEGEND

	CCR UNIT BOUNDARY (APPROXIMATE LIMITS OF UPPER AQC IMPOUNDMENT)
MW-703 (877.00)	CCR GROUNDWATER MONITORING SYSTEM WELLS (GROUNDWATER ELEVATION)
-875-	GROUNDWATER POTENTIOMETRIC SURFACE ELEVATIONS (REPRESENTATIVE FOR THIS UNIT)
21 FT/YR	DIRECTION OF GROUNDWATER FLOW AND CALCULATED GROUNDWATER FLOW RATE (FEET/YEAR)

NOTES:

1. KDHE FACILITY PERMIT AND LANDFILL PERMIT BOUNDARIES VARY FROM THAT SHOWN.
2. GOOGLE EARTH IMAGE DATED MARCH 2020. BOUNDARY AND MONITOR WELL LOCATIONS ARE APPROXIMATE.
3. BOUNDARY AND MONITOR WELL LOCATIONS ARE PROVIDED BY AECOM.
4. WATER LEVEL MEASUREMENTS COLLECTED ON NOVEMBER 9, 2022.

800 0 800 1600

SCALE FEET

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△	-	-
△	-	-
△	-	-

SHEET TITLE
POTENTIOMETRIC SURFACE MAP (NOVEMBER 2022)
CCR LANDFILL - LAQC IMPOUNDMENT

PROJECT TITLE
2022 GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

CLIENT
EVERGY METRO, INC
LA CYGNE GENERATING STATION
LA CYGNE, KANSAS

SCS ENGINEERS
8575 W. 110th St, Ste. 100
Overland Park, Kansas 66210
PH. (913) 681-0030 FAX. (913) 681-0012

PROJ. NO. 27217233.22
DSN. BY: DAW
DWN. BY: MBJ
CHK. BY: JF
Q/A RVW BY: JRR
PROJ. MGR: JRR

CADD FILE: LA CYGNE LF__ NOV 2022.DWG

DATE: 1/23/2023

FIGURE NO.
3

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APPENDIX B

TABLES

Table 1
CCR Landfill and Lower AQC Impoundment
Appendix III Detection Monitoring Results
Evergy La Cygne Generating Station

Well Number	Sample Date	Appendix III Constituents						
		Boron (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	pH (S.U.)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)
MW-10	5/9/2022	0.787	48.3	49.2	0.386	7.32	13.6	540
MW-10	11/9/2022	0.818	47.7	47.6	0.400	7.22	10.7	533
MW-13	5/9/2022	0.250	357	48.3	0.160	6.52	1460	2330
MW-13	7/15/2022	---	---	*52.8	---	*6.57	---	---
MW-13	8/17/2022	---	---	*53.8	---	*6.62	---	---
MW-13	11/9/2022	0.335	339	46.1	0.140 (J)	6.97	1430	1880
MW-14R	1/27/2022	---	---	*6.39	---	**7.29	---	---
MW-14R	3/3/2022	---	---	*5.97	---	**7.56	---	---
MW-14R	5/9/2022	0.730	52.0	6.43	0.313	7.28	61.7	532
MW-14R	11/9/2022	0.832	48.3	6.68	0.373	7.47	68.5	543
MW-15	5/9/2022	0.225	95.6	10.9	0.267	7.06	189	688
MW-15	11/9/2022	0.255	97.4	10.2	0.297	6.98	200	703
MW-601	1/27/2022	---	---	---	---	**7.63	*7.48	---
MW-601	3/3/2022	---	---	---	---	**7.60	*6.58	---
MW-601	5/9/2022	1.85	16.6	167	1.64	7.57	6.41	882
MW-601	11/9/2022	1.83	16.8	169	1.41	7.82	7.35	902
MW-602	5/9/2022	2.22	21.6	16.5	1.14	7.50	26.6	<10.0
MW-602	11/9/2022	2.27	22.2	15.8	1.10	7.64	26.8	571
MW-801	5/9/2022	2.10	22.1	95.7	1.01	7.64	3.25 (J)	788
MW-801	11/9/2022	2.09	23.2	94.7	0.932	7.39	4.12 (J)	746
MW-802	1/27/2022	---	---	*36.3	---	**7.46	---	---
MW-802	5/9/2022	2.36	28.4	38.5	0.949	7.71	0.946 (J)	646
MW-802	11/9/2022	2.47	26.9	40.6	0.936	7.39	1.07 (J)	667
MW-803	1/27/2022	---	---	*49.0	---	**7.39	*30.0	---
MW-803	3/3/2022	---	---	---	---	**7.43	*27.4	---
MW-803	5/9/2022	2.01	41.0	51.1	0.617	7.73	32.1	580
MW-803	7/15/2022	---	---	*51.2	---	**7.41	*31.6	---
MW-803	8/17/2022	---	---	*51.5	---	**7.71	*32.8	---
MW-803	11/9/2022	2.06	37.9	50.8	0.641	7.29	33.1	564
MW-804	5/9/2022	1.52	62.3	29.3	0.453	7.70	26.4	536
MW-804	7/15/2022	---	---	---	---	**7.70	*27.4	---
MW-804	8/17/2022	---	---	---	---	**7.18	*26.1	---
MW-804	11/9/2022	1.57	62.7	27.9	0.489	6.93	25.0	521
MW-805	5/9/2022	0.519	433	501	0.187	6.94	721	1980
MW-805	7/15/2022	---	---	---	---	*6.23	---	---
MW-805	11/9/2022	0.515	440	502	0.144 (J)	6.25	723	619

* Verification Sample obtained per certified statistical method and Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance, March 2009.

**Extra Sample for Quality Control Validation or per Standard Sampling Procedure

mg/L - miligrams per liter

S.U. - Standard Units

(J) - Reported concentration is below the US EPA method detection limit (MDL), however is above the laboratory reported dection limit (RDL) and is estimated.

--- Not Sampled

Table 2
CCR Landfill and Lower AQC Impoundment
Detection Monitoring Field Measurements
Evergy La Cygne Generating Station

Well Number	Sample Date	pH (S.U.)	Specific Conductivity (µS)	Temperature (°C)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	***Water Level (ft btoc)	Groundwater Elevation (ft NGVD)
MW-13	5/9/2022	6.52	2610	19.66	0.00	112	2.30	2.21	875.01
MW-13	7/15/2022	*6.57	2820	16.13	0.00	173	0.00	2.43	874.79
MW-13	8/17/2022	*6.62	2760	21.85	0.60	130	0.45	4.86	872.36
MW-13	11/9/2022	6.97	2930	16.53	0.00	45	0.00	5.90	871.32
MW-14R	1/27/2022	**7.29	994	12.95	0.00	-83	0.00	9.75	869.08
MW-14R	3/3/2022	**7.56	1070	13.10	19.30	118	2.97	8.74	870.09
MW-14R	5/9/2022	7.28	953	19.01	0.00	89	1.86	6.63	872.20
MW-14R	11/9/2022	7.47	1030	16.79	0.00	-101	0.00	9.90	868.93
MW-15	5/9/2022	7.06	1170	20.57	0.30	104	2.96	7.95	865.93
MW-15	11/9/2022	6.98	1220	17.65	7.40	127	0.00	9.07	864.81
MW-601	1/27/2022	**7.63	1680	12.21	0.00	-51	0.07	9.84	869.34
MW-601	3/3/2022	**7.60	1830	13.29	19.90	6	3.91	10.14	869.04
MW-601	5/9/2022	7.57	1660	18.57	7.60	55	1.13	10.90	868.28
MW-601	11/9/2022	7.82	1680	16.11	0.00	-54	0.42	9.90	869.28
MW-602	5/9/2022	7.50	1010	19.57	17.90	66	1.88	3.92	875.97
MW-602	11/9/2022	7.64	1050	16.74	0.00	-48	0.00	4.32	875.57
MW-801	5/9/2022	7.64	1470	18.35	0.00	-39	0.00	3.22	854.43
MW-801	11/9/2022	7.39	1470	17.23	0.00	-114	0.00	4.25	853.40
MW-802	1/27/2022	**7.46	1200	12.90	0.00	-99	0.00	5.18	848.29
MW-802	5/9/2022	7.71	1230	17.13	0.00	-210	0.00	5.00	848.47
MW-802	11/9/2022	7.39	1230	16.73	0.00	-137	0.00	5.16	848.31
MW-803	1/27/2022	**7.39	1070	13.04	0.00	-4	0.12	16.15	838.85
MW-803	3/3/2022	**7.43	1180	14.93	11.00	31	0.17	16.94	838.06
MW-803	5/9/2022	7.73	1130	17.09	0.00	-91	0.00	19.11	835.89
MW-803	7/15/2022	**7.41	1010	23.78	0.00	100	2.55	20.11	834.89
MW-803	8/17/2022	**7.71	1060	25.08	0.00	102	2.96	24.42	830.58
MW-803	11/9/2022	7.29	1090	16.53	2.00	82	2.19	21.01	833.99
MW-804	5/9/2022	7.70	1010	20.34	0.00	-56	0.00	10.50	844.70
MW-804	7/15/2022	**7.70	952	22.14	0.00	7	0.82	10.96	844.24
MW-804	8/17/2022	**7.18	980	22.33	1.30	28	8.13	11.04	844.16
MW-804	11/9/2022	6.93	989	19.34	4.10	7	5.60	8.67	846.53
MW-805	5/9/2022	6.94	3380	19.68	0.00	100	0.00	7.64	846.99
MW-805	7/15/2022	*6.23	3340	18.69	11.40	145	0.00	6.11	848.52
MW-805	11/9/2022	6.25	3260	18.56	13.90	136	0.18	7.47	847.16

* Verification Sample obtained per certified statistical method and Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance, March 2009.

**Extra Sample for Quality Control Validation or per Standard Sampling Procedure

***Depth to water measured in all monitoring wells within 24 hour period prior to the sampling event

S.U. - Standard Units

µS - microsiemens

°C - Degrees Celsius

ft btoc - Feet Below Top of Casing

ft NGVD - National Geodetic Vertical Datum (NAVD 88)

NTU - Nephelometric Turbidity Unit

APPENDIX C

ALTERNATIVE SOURCE DEMONSTRATIONS

C.1 CCR Groundwater Monitoring Alternative Source Demonstration Report November 2021 Groundwater Monitoring Event, CCR Landfill and Lower AQC Impoundment, La Cygne Generating Station (May 2022)

C.2 CCR Groundwater Monitoring Alternative Source Demonstration Report May 2022 Groundwater Monitoring Event, CCR Landfill and Lower AQC Impoundment, La Cygne Generating Station (December 2022)

APPENDIX C.1

CCR Groundwater Monitoring Alternative Source Demonstration Report November 2021 Groundwater Monitoring Event, CCR Landfill and Lower AQC Impoundment, La Cygne Generating Station (May 2022)

CCR GROUNDWATER MONITORING ALTERNATIVE SOURCE DEMONSTRATION REPORT NOVEMBER 2021 GROUNDWATER MONITORING EVENT

CCR LANDFILL AND LOWER AQC IMPOUNDMENT

La Cygne Generating Station
Evergy Metro, Inc
Ly Cygne, Kansas

SCS ENGINEERS

May 2022
File No. 21217233.22

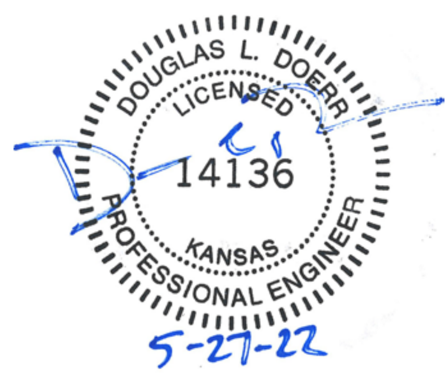
SCS Engineers
8575 W 110th St, Suite 100
Overland Park, Kansas 66210
913-681-0030

CERTIFICATIONS

I, John R. Rockhold, being a qualified groundwater scientist and licensed Professional Geologist in the State of Kansas, do hereby certify the accuracy of the information in the CCR Groundwater Monitoring Alternative Source Demonstration Report for the CCR Landfill and Lower AQC Impoundment at the La Cygne Generating Station. The Alternative Source Demonstration was prepared by me or under my direct supervision in accordance with generally accepted hydrogeological practices and the local standard of care.

John R. Rockhold, P.G.
SCS Engineers

I, Douglas L. Doerr, being a qualified licensed Professional Engineer in the State of Kansas, do hereby certify the accuracy of the information in the CCR Groundwater Monitoring Alternative Source Demonstration Report for the CCR Landfill and Lower AQC Impoundment at the La Cygne Generating Station. The Alternative Source Demonstration was prepared by me or under my direct supervision in accordance with generally accepted engineering practices and the local standard of care.



Douglas L. Doerr, P.E.
SCS Engineers

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Section **Page**

Appendices

1 REGULATORY FRAMEWORK

Certain owners or operators of Coal Combustion Residuals (CCR) units are required to complete groundwater monitoring activities to evaluate whether a release from the unit has occurred. Included in the activities is the completion of a statistical analysis of the groundwater quality data as prescribed in § 257.93(h) of the CCR Final Rule. If the initial analysis indicates a statistically significant increase (SSI) over background levels, the owner or operator may perform an alternative source demonstration (ASD). In accordance with § 257.94(e)(2), the owner or operator of the CCR unit may demonstrate that a source other than the CCR unit caused the SSI over background levels for a constituent, or that the SSI 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 SSI over background levels to include obtaining a certification from a qualified professional engineer 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 § 257.94. 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.

2 STATISTICAL RESULTS

Statistical analysis of monitoring data from the groundwater monitoring system for the CCR Landfill and Lower AQC Impoundment at the La Cygne Generating Station has been completed in substantial compliance with the "Statistical Method Certification by A Qualified Professional Engineer" dated October 12, 2017. Detection monitoring groundwater samples were collected on November 18, 2021. Review and validation of the results from the November 2021 Detection Monitoring Event was completed on January 5, 2022, which constitutes completion and finalization of detection monitoring laboratory analyses. A statistical analysis was then conducted to determine whether there was a statistically significant increase (SSI) over background values for each constituent listed in Appendix III to Part 257-Constituents for Detection Monitoring. Two rounds of verification sampling were conducted for certain constituents on January 27, 2022 and March 3, 2022.

The completed statistical evaluation identified one Appendix III constituent above its prediction limit established for monitoring well MW-803.

Monitoring Well Constituent	*UPL	Observation November 18, 2021	1st Verification January 27, 2022	2nd Verification March 3, 2022
MW-803				
Sulfate	26.76	27.2	30.0	27.4

*UPL – Upper Prediction Limit

Determination: A statistical evaluation was completed for all Appendix III detection monitoring constituents in accordance with the certified statistical method. The statistical evaluation identified an SSI above the background prediction limit for sulfate at MW-803.

3 ALTERNATIVE SOURCE DEMONSTRATION

An Alternative Source Demonstration is a means to provide supporting lines of evidence that something other than a release from a regulated CCR unit caused an SSI. For the above identified SSIs for the CCR Landfill and Lower AQC Impoundment at the La Cygne Generating Station, there are multiple lines of supporting evidence to indicate they are not caused by a release from the CCR Landfill and Lower AQC Impoundment. Select multiple lines of supporting evidence are described as follows.

3.1 BOX AND WHISKERS PLOTS

A commonly accepted method to demonstrate and visualize the distribution of data in a given data set is to construct box and whiskers plots. The basic box plotted graphically locates the median, 25th and 75th percentiles of the data set; the "whiskers" extend to the minimum and maximum values of the data set. The range between the ends of a box plot represents the Interquartile Range, which can be used as an estimate of spread or variability. The mean is denoted by a "+".

When comparing multiple wells or well groups, box plots for each well can be lined up on the same axis to roughly compare the variability in each well. This may be used as an exploratory screening for the test of homogeneity of variance across multiple wells.

Box and whiskers plots were prepared for sulfate for upgradient wells MW-602 and MW-13, up/cross-gradient well MW-14R and downgradient wells MW-15, MW-803, and MW-804. The sulfate concentrations in upgradient well MW-13 are greater than the sulfate concentrations in monitoring well MW-803 and the sulfate concentrations in upgradient well MW-602 are similar to the concentrations in monitoring well MW-803. The comparison indicates the sulfate concentrations in MW-803 are not caused by the CCR Landfill or the Lower AQC Impoundment and that there has been significant variability of sulfate concentrations in upgradient wells. This demonstrates that a source other than the CCR Landfill and Lower AQC Impoundment caused the SSI above background levels for sulfate, or that the SSIs resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Box and whiskers plots are provided in **Appendix A**.

3.2 TIME SERIES PLOTS

Time series plots provide a graphical method to view changes in data at a particular well (monitoring point) or wells over time. Time series plots display the variability in concentration levels over time and can be used to indicate possible outliers or data errors (i.e., spikes). More than one well can be compared on the same plot to look for differences between wells. Non-detect data is plotted as censored data at one-half of the laboratory reporting limit. Time series plots can also be used to examine the data for trends.

Time series plots for sulfate were prepared for the CCR monitoring system for upgradient wells MW-602 and MW-13, up/cross-gradient well MW-14R and downgradient wells MW-15, MW-803, and MW-804. The sulfate concentrations in upgradient well MW-13 are greater than the sulfate concentrations in monitoring well MW-803 and the sulfate concentrations in upgradient well MW-602 are similar to the concentrations in monitoring well MW-803. The comparison indicates the sulfate concentrations in MW-803 are not caused by the CCR Landfill or the Lower AQC Impoundment and that there has been significant variability of sulfate concentrations in upgradient wells. This demonstrates that a source other than the CCR Landfill and Lower AQC Impoundment caused the SSI above background levels for sulfate, or that the SSIs resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Time series plots are provided in **Appendix C.**

3.3 PIPER DIAGRAM PLOTS

Piper diagrams are a form of tri-linear diagram, and a widely accepted method to provide a visual representation of the ion concentration of groundwater. Piper diagrams portray water compositions and facilitate the interpretation and presentation of chemical analyses. They may be used to visually compare the chemical composition of water quality across wells, and aid in determining whether the waters are similar or dis-similar, and can over time indicate whether the waters are mixing.

A piper diagram has two triangular plots on the right and left side of a 4-sided center field. The three major cations are plotted in the left triangle and anions in the right. Each of the three cation/anion variables, in milliequivalents, is divided by the sum of the three values, to produce a percent of total cation/anions. These percentages determine the location of the associated symbol. The data points in the center field are located by extending the points in the lower triangles to the point of intersection. In order for a piper diagram to be produced, the selected data file must contain the following constituents: Sodium (Na), Potassium (K), Calcium (Ca), Magnesium (Mg), Chloride (Cl), Sulfate (SO4), Carbonate (CO3), and Bicarbonate (HCO3).

A piper diagram was generated for samples from upgradient wells MW-13, MW-601, and MW-602 and from monitoring well MW-803. The samples from MW-803 plot between the samples from upgradient wells MW-13 and MW-601/MW-602 indicating a combination of geochemical characteristics of upgradient wells. Additionally of note, the difference between the upgradient wells indicates that natural variability occurs between relatively closely spaced upgradient wells and is likely to occur across the site. This demonstrates that a source other than the Landfill and Lower AQC Impoundment caused the SSI for MW-803, or that the SSI resulted from natural variation in groundwater quality. The piper diagram plots and analytical results are provided in **Appendix C**.

4 CONCLUSION

Our opinion is that a sufficient body of evidence is available and presented above to demonstrate that a source other than the CCR Landfill and Lower AQC Impoundment caused the SSIs for sulfate, or that the SSIs resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Based on the successful ASD, the owner or operator of the CCR Landfill and Lower AQC Impoundment may continue with the detection monitoring program under § 257.94.

5 GENERAL COMMENTS

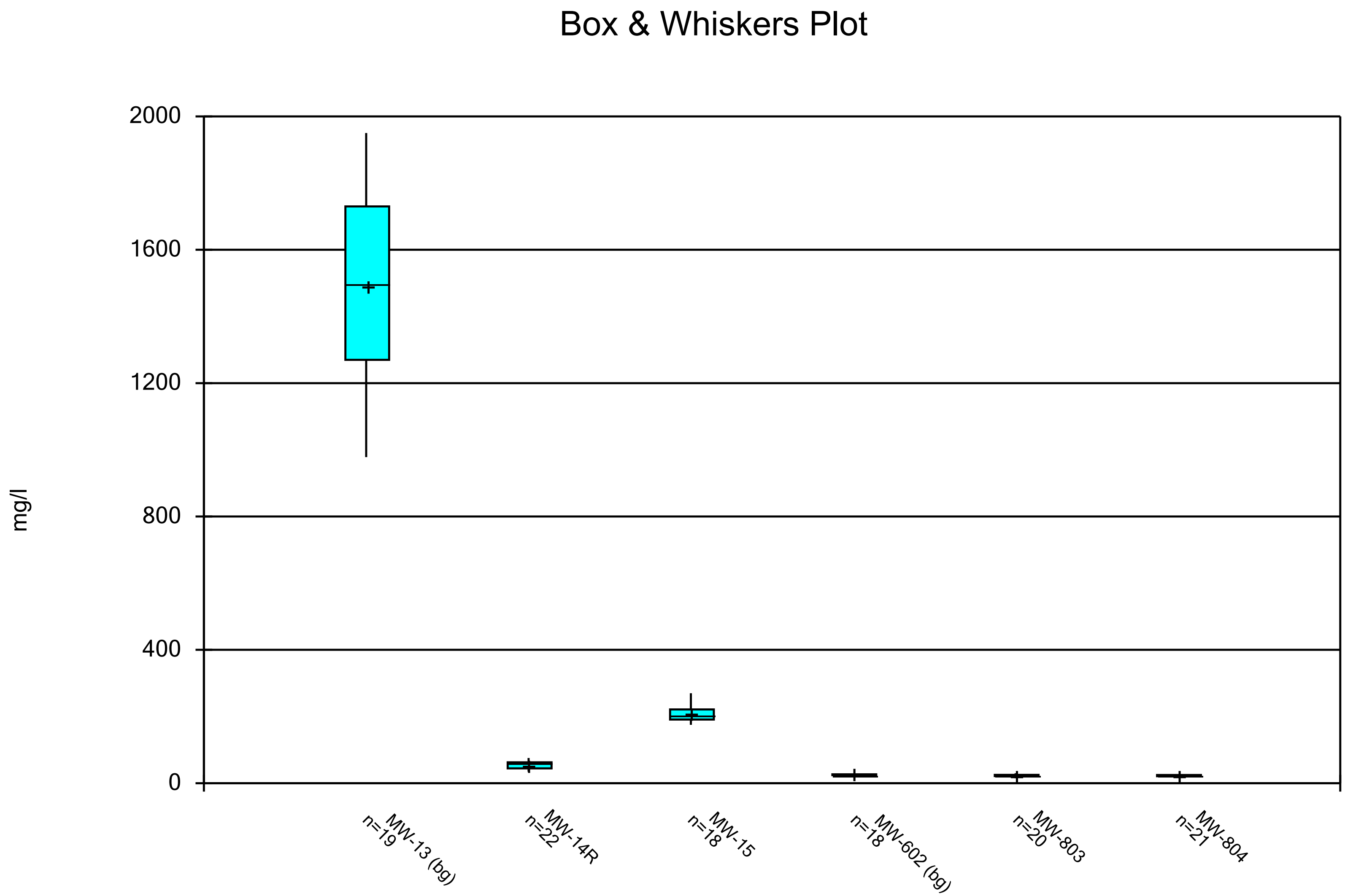
This report has been prepared and reviewed under the direction of a qualified groundwater scientist and qualified professional engineer. Please note that SCS Engineers does not warrant the work of regulatory agencies or other third parties supplying information used in the assimilation of this report. This report is prepared in accordance with generally accepted environmental engineering and geological practices, within the constraints of the client's directives. It is intended for the exclusive use of Evergy Metro, Inc. for specific application to the La Cygne Generating Station. No warranties, express or implied, are intended or made.

The signatures of the certifying registered geologist and professional engineer on this document represent that to the best of their knowledge, information, and belief in the exercise of their professional judgement in accordance with the standard of practice, it is their professional opinions that the aforementioned information is accurate as of the date of such signature. Any opinion or decisions by them are made on the basis of their experience, qualifications, and professional judgement and are not to be construed as warranties or guaranties. In addition, opinions relating to regulatory, environmental, geologic, geochemical and geotechnical conditions interpretations or other estimates are based on available data, and actual conditions may vary from those encountered at the times and locations where data are obtained, despite the use of due care.

Appendix A

Box and Whiskers Plots

Sanitas™ v.9.6.32 Sanitas software licensed to SCS Engineers. UG



Constituent: SULFATE Analysis Run 5/18/2022 9:42 AM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

Box & Whiskers Plot

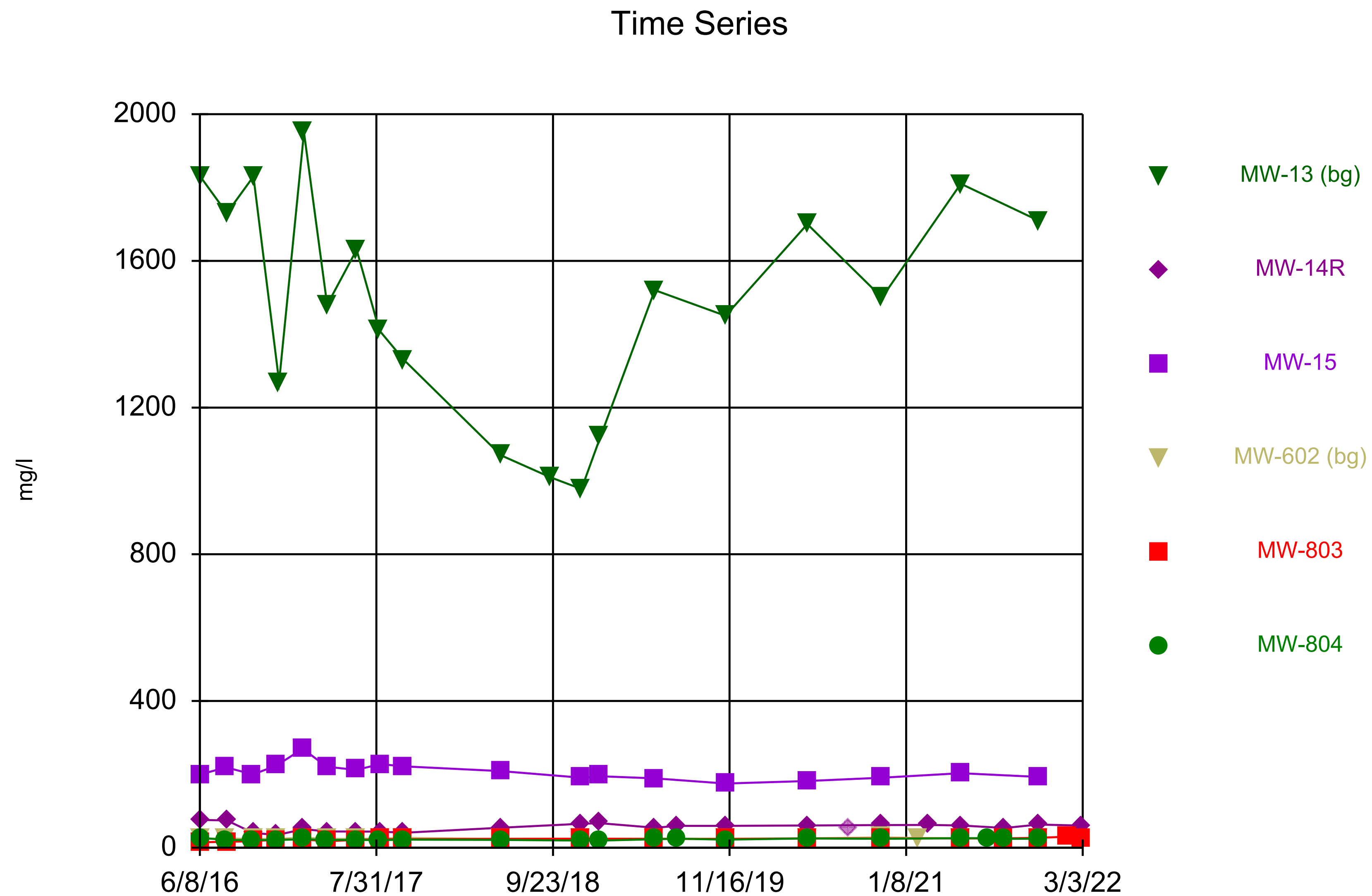
LaCygne   Client: SCS Engineers   Data: LaC GW Data   Printed 5/18/2022, 9:43 AM

Constituent	Well	N	Mean	Std. Dev.	Std. Err.	Median	Min.	Max.	%NDs
SULFATE (mg/l)	MW-13 (bg)	19	1491	298.5	68.48	1500	978	1950	0
SULFATE (mg/l)	MW-14R	22	55.98	10.98	2.342	59.65	34.9	75.8	0
SULFATE (mg/l)	MW-15	18	206.9	22.01	5.187	201.5	175	270	0
SULFATE (mg/l)	MW-602 (bg)	18	25.26	1.366	0.3219	24.95	23.4	28.1	0
SULFATE (mg/l)	MW-803	20	23.07	3.844	0.8596	24.05	15	30	0
SULFATE (mg/l)	MW-804	21	22.82	2.245	0.4899	21.9	19.4	27.2	0

Appendix B

Time Series Plots

Sanitas™ v.9.6.32 Sanitas software licensed to SCS Engineers. UG



Constituent: SULFATE Analysis Run 5/18/2022 9:39 AM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

Time Series

Constituent: SULFATE (mg/l) Analysis Run 5/18/2022 9:40 AM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-13 (bg)	MW-14R	MW-15	MW-602 (bg)	MW-803	MW-804
6/8/2016						27.2
6/9/2016	1830	75.8	200		15	
6/10/2016				25.1		
8/9/2016			219	25.2		
8/10/2016						20.9
8/11/2016	1730	74.2				
8/12/2016					16.2	
10/11/2016						20.9
10/12/2016			200			
10/13/2016	1830	40.1		23.4	17.9	
12/6/2016					21.9	
12/7/2016			224			21
12/9/2016		34.9		24.2		
12/13/2016	1270					
2/7/2017			270			23.2
2/8/2017				27.5	22.4	
2/9/2017		50.4				
2/10/2017	1950					
4/4/2017						21.4
4/5/2017			221			
4/6/2017	1480					
4/7/2017		44.3		23.8	17.8	
6/13/2017					21.2	21.5
6/14/2017			212			
6/15/2017	1630	44.2		24.4		
8/8/2017	1410					20.7
8/9/2017					23.2	
8/10/2017		44	228	24.8		
10/3/2017			222			
10/4/2017					23.2	
10/5/2017	1330	40.7		26.9		21.9
5/23/2018	1070	54.5	209	23.9	24.4	21.5
9/17/2018	1010					
11/30/2018	978	65.4	191	24.2	24.5	19.4
1/14/2019	1120	66.9	195			19.5
5/23/2019	1520	54.5	189	24.2	24.1	23.2
7/17/2019		59.6				24.5
11/7/2019	1450	59.7	175	24.5	24	21.9
5/19/2020	1700	60.5	182	25.7	25.2	25.2
11/12/2020	1500	61.6	191	28.1	25.2	24.4
2/4/2021				26.7		
3/3/2021		62.2				
5/18/2021	1810	60.8	203	26.2	25.2	25.9
7/21/2021						26
8/30/2021		53.7			25.4	24.4
11/18/2021	1710	63.1	193	25.9	27.2	24.6
1/27/2022					30	
3/3/2022		60.4			27.4	

Appendix C

Piper Diagram Plots and Analytical Results

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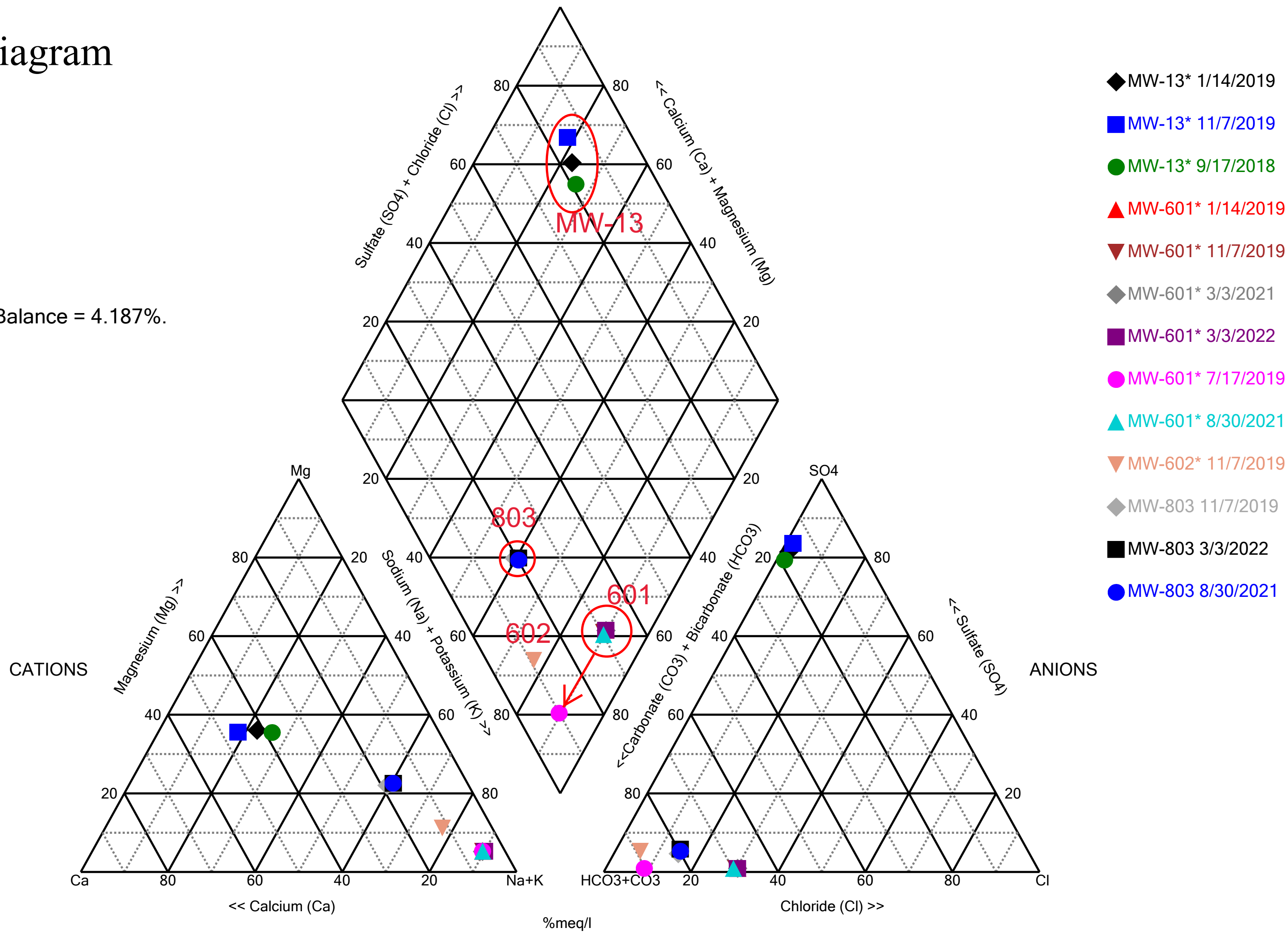
Piper Diagram

Cation-Anion Balance = 4.187%.



Analysis Run 5/26/2022 5:02 PM View: LF LAQC Piper Data

LaCygne Client: SCS Engineers Data: LaC GW Data

Piper Diagram

Analysis Run 5/26/2022 5:05 PM   View: LF LAQC Piper Data

LaCygne   Client: SCS Engineers   Data: LaC GW Data

Totals (ppm)	Na	K	Ca	Mg	Cl	SO4	HCO3	CO3
MW-13* 9/17/2018	165	3.55	214	120	13.1	1010	295	10
MW-13* 1/14/2019	151	3.3	247	128	12.5	1120	289	10
MW-13* 11/7/2019	154	3.37	340	159	15.7	1450	321	10
MW-601* 1/14/2019	361	4.21	17.9	10.9	157	5.97	626	10
MW-601* 7/17/2019	362	4.35	18.2	10.9	32.3	5.75	631	10
MW-601* 11/7/2019	346	4.13	17.2	10.4	164	6.33	668	10
MW-601* 3/3/2021	350	4.1	17	10.9	157	6.73	631	10
MW-601* 8/30/2021	351	4.57	16.8	10.9	163	4.98	683	10
MW-601* 3/3/2022	348	4.78	16.8	10.3	166	6.58	665	10
MW-602* 11/7/2019	192	3.59	24.9	15	16.6	24.5	523	10
MW-803 11/7/2019	154	4.94	43.1	30.4	49.4	24	496	10
MW-803 8/30/2021	156	4.92	39	30.8	50.1	25.4	483	10
MW-803 3/3/2022	151	4.74	37.7	30.1	50.9	27.4	487	10

APPENDIX C.2

CCR Groundwater Monitoring Alternative Source Demonstration Report May 2022 Groundwater Monitoring Event, CCR Landfill and Lower AQC Impoundment, La Cygne Generating Station (December 2022)

CCR GROUNDWATER MONITORING ALTERNATIVE SOURCE DEMONSTRATION REPORT MAY 2022 GROUNDWATER MONITORING EVENT

CCR LANDFILL AND LOWER AQC IMPOUNDMENT

La Cygne Generating Station
Evergy Metro, Inc
Ly Cygne, Kansas

SCS ENGINEERS

December 2022
File No. 21217233.22

SCS Engineers
8575 W 110th St, Suite 100
Overland Park, Kansas 66210
913-681-0030

CERTIFICATIONS

I, John R. Rockhold, being a qualified groundwater scientist and licensed Professional Geologist in the State of Kansas, do hereby certify the accuracy of the information in the CCR Groundwater Monitoring Alternative Source Demonstration Report for the CCR Landfill and Lower AQC Impoundment at the La Cygne Generating Station. The Alternative Source Demonstration was prepared by me or under my direct supervision in accordance with generally accepted hydrogeological practices and the local standard of care.

JOHN R. ROCKHOLD
LICENSED
29
12-19-22
KANSAS
PROFESSIONAL GEOLOGIST

John R. Rockhold, P.G.
SCS Engineers

I, Douglas L. Doerr, being a qualified licensed Professional Engineer in the State of Kansas, do hereby certify the accuracy of the information in the CCR Groundwater Monitoring Alternative Source Demonstration Report for the CCR Landfill and Lower AQC Impoundment at the La Cygne Generating Station. The Alternative Source Demonstration was prepared by me or under my direct supervision in accordance with generally accepted engineering practices and the local standard of care.

DOUGLAS L. DOERR
LICENSED
14136
KANSAS
PROFESSIONAL ENGINEER
12-19-22

Douglas L. Doerr, P.E.
SCS Engineers

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Appendices

1 REGULATORY FRAMEWORK

Certain owners or operators of Coal Combustion Residuals (CCR) units are required to complete groundwater monitoring activities to evaluate whether a release from the unit has occurred. Included in the activities is the completion of a statistical analysis of the groundwater quality data as prescribed in § 257.93(h) of the CCR Final Rule. If the initial analysis indicates a statistically significant increase (SSI) over background levels, the owner or operator may perform an alternative source demonstration (ASD). In accordance with § 257.94(e)(2), the owner or operator of the CCR unit may demonstrate that a source other than the CCR unit caused the SSI over background levels for a constituent, or that the SSI 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 SSI over background levels to include obtaining a certification from a qualified professional engineer 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 § 257.94. 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.

2 STATISTICAL RESULTS

Statistical analysis of monitoring data from the groundwater monitoring system for the CCR Landfill and Lower AQC Impoundment at the La Cygne Generating Station has been completed in substantial compliance with the "Statistical Method Certification by A Qualified Professional Engineer" dated October 12, 2017. Detection monitoring groundwater samples were collected on May 9, 2022. Review and validation of the results from the May 2022 Detection Monitoring Event was completed on July 1, 2022, which constitutes completion and finalization of detection monitoring laboratory analyses. A statistical analysis was then conducted to determine whether there was a statistically significant increase (SSI) over background values for each constituent listed in Appendix III to Part 257-Constituents for Detection Monitoring. Two rounds of verification sampling were conducted for certain constituents on July 15 and 19, 2022 and August 17, 2022.

The completed statistical evaluation identified one Appendix III constituent above its prediction limit established for monitoring well MW-13 and two Appendix III constituents above their prediction limits established for monitoring well MW-803.

Monitoring Well Constituent	*UPL	Observation May 9, 2021	1st Verification July 15/19, 2022	2nd Verification August 17, 2022
MW-13				
Chloride	19.61	48.3	52.8	53.8
MW-803				
Chloride	50.6	51.1	51.2	51.5
Sulfate	28.84	32.1	31.6	32.8

*UPL – Upper Prediction Limit

Determination: A statistical evaluation was completed for all Appendix III detection monitoring constituents in accordance with the certified statistical method. The statistical evaluation identified SSIs above the background prediction limit for chloride at MW-13 and for chloride and sulfate at MW-803.

3 ALTERNATIVE SOURCE DEMONSTRATION

An Alternative Source Demonstration is a means to provide supporting lines of evidence that something other than a release from a regulated CCR unit caused an SSI. For the above identified SSIs for the CCR Landfill and Lower AQC Impoundment at the La Cygne Generating Station, there are multiple lines of supporting evidence to indicate they are not caused by a release from the CCR Landfill and Lower AQC Impoundment. Select multiple lines of supporting evidence are described as follows.

3.1 UPRADIENT WELL LOCATION

Figure 1 in **Appendix A** shows a potentiometric surface contour map indicating the direction of groundwater flow at and near the CCR Landfill and Lower AQC Impoundment at the time of sampling. The groundwater flow directions indicated are for the May 2022 groundwater monitoring event and are typical flow directions for this unit. During this sampling event, monitoring well MW-13 is located upgradient from the CCR Landfill and Lower AQC Impoundment indicating the SSI for chloride in monitoring well MW-13 is not caused by a release from the CCR Landfill and Lower AQC Impoundment. This demonstrates that a source other than the CCR Landfill and Lower AQC Impoundment caused the SSI above background levels for chloride, or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality.

3.2 BOX AND WHISKERS PLOTS

A commonly accepted method to demonstrate and visualize the distribution of data in a given data set is to construct box and whiskers plots. The basic box plotted graphically locates the median, 25th and 75th percentiles of the data set; the "whiskers" extend to the minimum and maximum values of the data set. The range between the ends of a box plot represents the Interquartile Range, which can be used as an estimate of spread or variability. The mean is denoted by a "+".

When comparing multiple wells or well groups, box plots for each well can be lined up on the same axis to roughly compare the variability in each well. This may be used as an exploratory screening for the test of homogeneity of variance across multiple wells.

Box and whiskers plots were prepared for chloride for upgradient wells MW-602 and MW-13 and non-network upgradient wells MW-701 and MW-703, and downgradient well MW-803. MW-701 and MW-703 are not in the monitoring network for the CCR Landfill and Lower AQC Impoundment. The chloride concentrations in non-network upgradient wells MW-701 and MW-703 are greater than the chloride concentrations in monitoring well MW-13 and the chloride concentrations in upgradient well MW-602 are similar to the concentrations in monitoring well MW-13. The chloride concentrations in non-network upgradient well MW-703 are greater than the chloride concentrations in monitoring well MW-803 and the chloride concentrations in non-network upgradient well MW-701 are similar to the concentrations in monitoring well MW-803. The comparisons and the upgradient location of MW-13 indicate the chloride concentrations in upgradient well MW-13 are not caused by the CCR Landfill or the Lower AQC Impoundment. Additionally, the comparisons indicate the chloride concentrations in well MW-803 are not caused by the CCR Landfill or the Lower AQC Impoundment and that there is significant variability of chloride concentrations in upgradient wells. This demonstrates that a source other than the CCR Landfill and Lower AQC Impoundment could have caused the SSI above background levels for chloride, or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Box and whiskers plots are provided in **Appendix B.**

Box and whiskers plots were prepared for sulfate for upgradient wells MW-602 and MW-13, non-monitoring network upgradient wells MW-701 and MW-703, and downgradient well MW-803. The sulfate concentrations in upgradient well MW-13 and non-network upgradient well MW-701 are greater than the sulfate concentrations in monitoring well MW-803 and the sulfate concentrations in upgradient well MW-602 are similar to the concentrations in monitoring well MW-803. The comparisons indicate the sulfate concentrations in well MW-803 are not caused by the CCR Landfill or the Lower AQC Impoundment and that there is significant variability of chloride concentrations in upgradient wells. This demonstrates that a source other than the CCR Landfill and Lower AQC Impoundment caused the SSI above background levels for sulfate, or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Box and whiskers plots are provided in **Appendix B.**

3.3 TIME SERIES PLOTS

Time series plots provide a graphical method to view changes in data at a particular well (monitoring point) or wells over time. Time series plots display the variability in concentration levels over time and can be used to indicate possible outliers or data errors (i.e., spikes). More than one well can be compared on the same plot to look for differences between wells. Non-detect data is plotted as censored data at one-half of the laboratory reporting limit. Time series plots can also be used to examine the data for trends.

Time series plots were prepared for chloride for upgradient wells MW-602 and MW-13 and non-network upgradient wells MW-701 and MW-703, and downgradient well MW-803. MW-701 and MW-703 are not in the monitoring network for the CCR Landfill and Lower AQC Impoundment. The chloride concentrations in non-network upgradient wells MW-701 and MW-703 are historically greater than the chloride concentrations in monitoring well MW-13; however, for this sampling event the chloride concentration were similar for all three upgradient wells. The chloride concentrations in downgradient monitoring well MW-803 are significantly lower than the concentrations in non-network upgradient well MW-703 and similar to the concentrations in non-network upgradient well MW-701

The comparisons and the upgradient location of MW-13 indicate the chloride concentrations in upgradient well MW-13 are not caused by the CCR Landfill or the Lower AQC Impoundment. Additionally, the comparisons indicate the chloride concentrations in well MW-803 are similar to or lower than upgradient concentrations and are not caused by the CCR Landfill or the Lower AQC Impoundment. There is significant variability of chloride concentrations in upgradient wells. This demonstrates that a source other than the CCR Landfill and Lower AQC Impoundment could have caused the SSI above background levels for chloride, or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Time series plots are provided in **Appendix C.**

Time series plots were prepared for sulfate for upgradient wells MW-602 and MW-13, non-monitoring network upgradient wells MW-701 and MW-703, and downgradient well MW-803. The sulfate concentrations in upgradient well MW-13 and non-network upgradient well MW-701 are historically and currently greater than the sulfate concentrations in monitoring well MW-803 and the sulfate concentrations in upgradient well MW-602 are similar to the concentrations in monitoring well MW-803. The comparisons indicate the sulfate concentrations in well MW-803 are not caused by the CCR Landfill or the Lower AQC Impoundment and that there is significant variability of chloride concentrations in upgradient wells. This demonstrates that a source other than the CCR Landfill and Lower AQC Impoundment could have caused the SSI above background levels for sulfate, or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Time series plots are provided in **Appendix C.**

3.4 PIPER DIAGRAM PLOTS

Piper diagrams are a form of tri-linear diagram, and a widely accepted method to provide a visual representation of the ion concentration of groundwater. Piper diagrams portray water compositions and facilitate the interpretation and presentation of chemical analyses. They may be used to visually compare the chemical composition of water quality across wells, and aid in determining whether the waters are similar or dis-similar, and can over time indicate whether the waters are mixing.

A piper diagram has two triangular plots on the right and left side of a 4-sided center field. The three major cations are plotted in the left triangle and anions in the right. Each of the three cation/anion variables, in milliequivalents, is divided by the sum of the three values, to produce a percent of total cation/anions. These percentages determine the location of the associated symbol. The data points in the center field are located by extending the points in the lower triangles to the point of intersection. In order for a piper diagram to be produced, the selected data file must contain the following constituents: Sodium (Na), Potassium (K), Calcium (Ca), Magnesium (Mg), Chloride (Cl), Sulfate (SO4), Carbonate (CO3), and Bicarbonate (HCO3).

A piper diagram was generated for samples from upgradient wells MW-13, MW-601, and MW-602 and from monitoring well MW-803. The samples from MW-803 plot between the samples from upgradient wells MW-13 and MW-601/MW-602 indicating a combination of geochemical characteristics of upgradient wells. Additionally of note, the difference between the upgradient wells indicates that natural variability occurs between relatively closely spaced upgradient wells and is likely to occur across the site. This demonstrates that a source other than the Landfill and Lower AQC Impoundment caused the SSI for MW-803, or that the SSI resulted from natural variation in groundwater quality. The piper diagram plots and analytical results are provided in **Appendix D**.

3.5 TREND ANALYSIS

Trend analysis was performed to evaluate for statistically significant trends utilizing Sen's Slope/Mann-Kendall Statistical Analysis. Sen's Slope/Mann-Kendall statistical analysis is used to determine if the data exhibits an SSI or statistically significant decreasing (SSD) trend. A trend is the general increase or decrease in observed values of a variable over time. A trend analysis can be used to determine the significance of an apparent trend and to estimate the magnitude of that trend. The Mann-Kendall test is nonparametric, meaning that it does not depend on an assumption of a particular underlying distribution. The test uses only the relative magnitude of data rather than actual values. Therefore, missing values are allowed, and values that are recorded as non-detects by the laboratory can still be used in the statistical analysis by assigning values equal to half their detection limits. Sen's Slope is a simple nonparametric procedure developed to estimate the true slope. The advantage of this method over linear regression is that it is not greatly affected by gross data errors or outliers, and can be computed when data are missing.

The Sen's Slope/Mann-Kendall Statistical Analysis was performed at the 98 percent confidence level utilizing the statistical program Sanitas™. Sulfate data from June 2016 through the most recent data for upgradient monitoring well MW-602, non-network upgradient monitoring well MW-701 and monitoring network well MW-803 were used to perform trend analysis. The trend analysis for sulfate indicates upgradient-gradient well MW-602 has a positive slope (i.e. increasing trend but not statistically significant) and concentrations near that of MW-803 and non-network upgradient monitoring well has an SSI trend and concentrations greater than MW-803. Since upgradient wells show increasing trends due to natural conditions, it is also likely the downgradient wells will increase similarly due to natural conditions.

These trend analyses demonstrate that a source other than the CCR Landfill could have caused the SSI over the background level for sulfate or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Trend analyses are provided in **Appendix E.**

4 CONCLUSIONS

Our opinion is that a sufficient body of evidence is available and presented above to demonstrate that a source other than the CCR Landfill and Lower AQC Impoundment caused the SSIs for chloride and sulfate, or that the SSIs resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Based on the successful ASD, the owner or operator of the CCR Landfill and Lower AQC Impoundment may continue with the detection monitoring program under § 257.94.

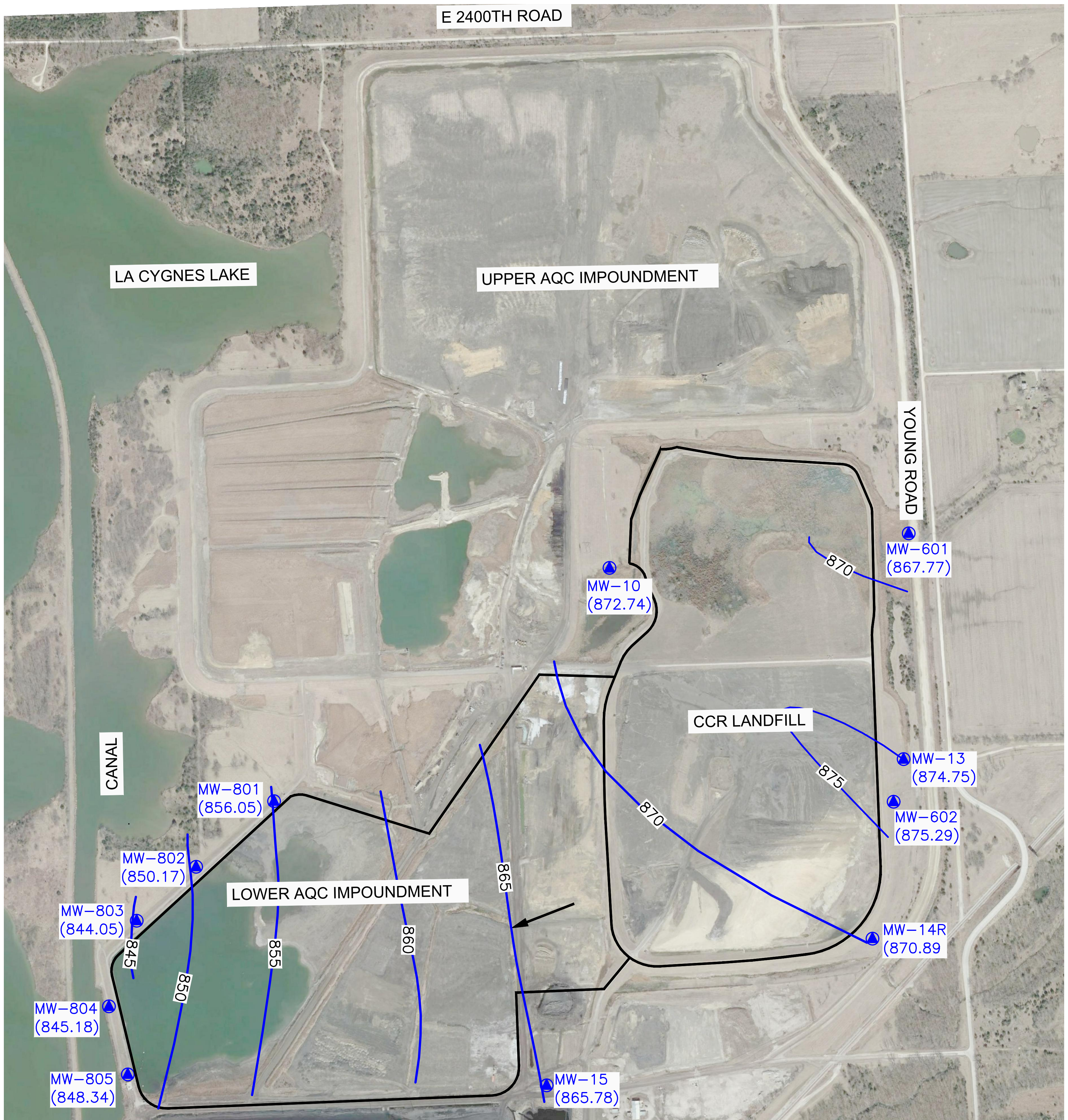
5 GENERAL COMMENTS

This report has been prepared and reviewed under the direction of a qualified groundwater scientist and qualified professional engineer. Please note that SCS Engineers does not warrant the work of regulatory agencies or other third parties supplying information used in the assimilation of this report. This report is prepared in accordance with generally accepted environmental engineering and geological practices, within the constraints of the client's directives. It is intended for the exclusive use of Evergy Metro, Inc. for specific application to the La Cygne Generating Station. No warranties, express or implied, are intended or made.

The signatures of the certifying registered geologist and professional engineer on this document represent that to the best of their knowledge, information, and belief in the exercise of their professional judgement in accordance with the standard of practice, it is their professional opinions that the aforementioned information is accurate as of the date of such signature. Any opinion or decisions by them are made on the basis of their experience, qualifications, and professional judgement and are not to be construed as warranties or guaranties. In addition, opinions relating to regulatory, environmental, geologic, geochemical and geotechnical conditions interpretations or other estimates are based on available data, and actual conditions may vary from those encountered at the times and locations where data are obtained, despite the use of due care.

Appendix A

Potentiometric Surface Map



LEGEND

CCR UNIT BOUNDARY (APPROXIMATE LIMITS OF UPPER AQC IMPOUNDMENT)

MW-703 (877.00) CCR GROUNDWATER MONITORING SYSTEM WELLS (GROUNDWATER ELEVATION)

—875— GROUNDWATER POTENTIOMETRIC SURFACE ELEVATIONS (REPRESENTATIVE FOR THIS UNIT)

NOTES:

1. KDHE FACILITY PERMIT AND LANDFILL PERMIT BOUNDARIES VARY FROM THAT SHOWN.
2. GOOGLE EARTH IMAGE DATED MARCH 2020. BOUNDARY AND MONITOR WELL LOCATIONS ARE APPROXIMATE.
3. BOUNDARY AND MONITOR WELL LOCATIONS ARE PROVIDED BY AECOM.

800 0 800 1600

SCALE FEET

REV.	DATE	CK. BY
△1	-	-
△2	-	-
△3	-	-
△4	-	-
△5	-	-
△6	-	-

SHEET TITLE
POTENTIOMETRIC SURFACE MAP CCR LANDFILL-LAQC IMPOUNDMENT (MAY 2022)

PROJECT TITLE
LA CYGNE CCR LANDFILL - LAQC IMPOUNDMENT 2022 GROUNDWATER

CLIENT
EVERGY METRO, INC
LA CYGNE GENERATING STATION
LA CYGNE, KANSAS

SCS ENGINEERS
8575 W. 110th St, Ste. 100
Overland Park, Kansas 66210
PH. (913) 681-0030 FAX. (913) 681-0012

PROJ. NO. 27217233.22 | DWN. BY: MBJ | Q/A RVW BY: JRR
DSN. BY: DAW | CHK. BY: JF | PROJ. MGR JRR

CADD FILE: LA CYGNE LF__ MAY 2022.DWG

DATE: 9/28/22

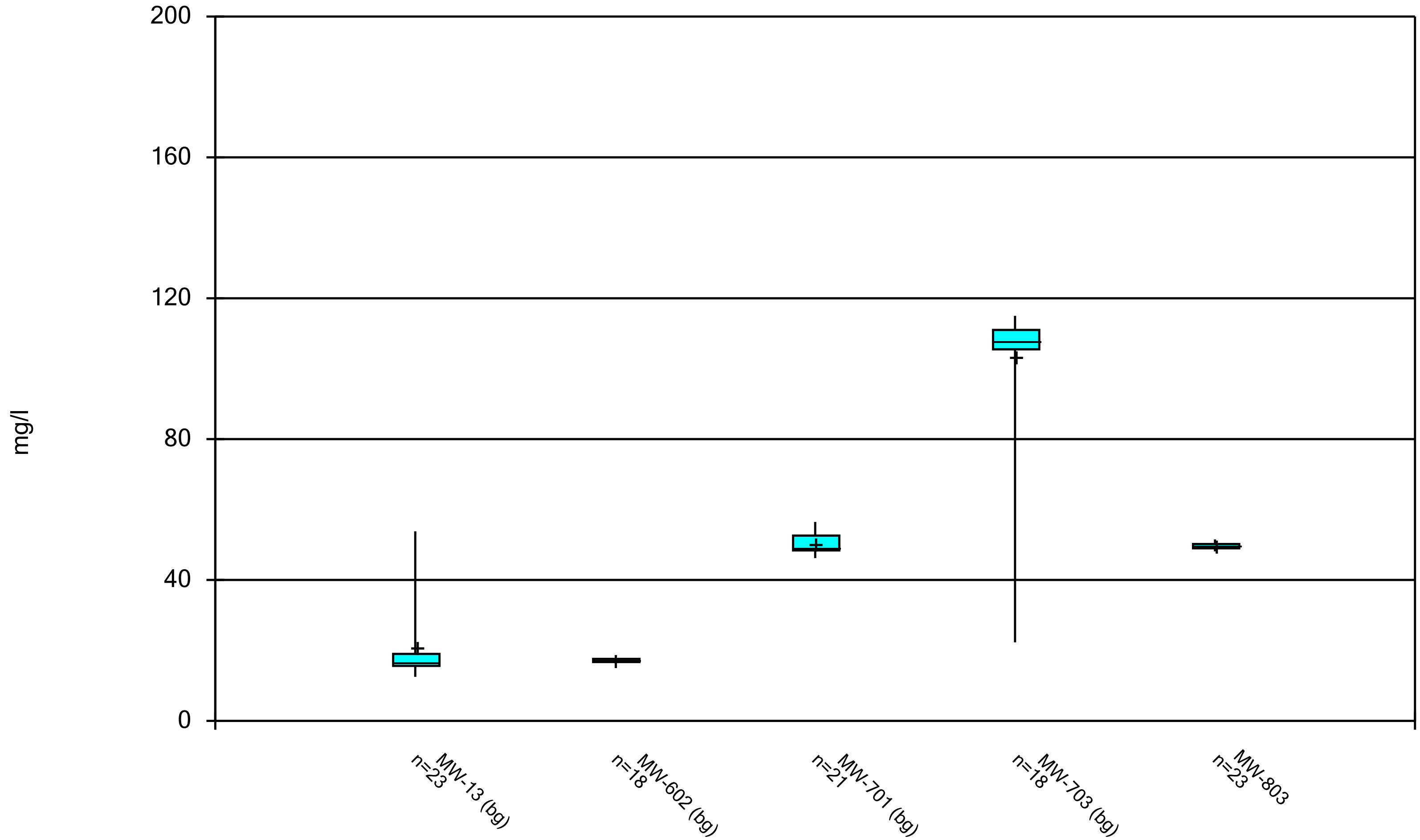
FIGURE NO. 1

Appendix B

Box and Whiskers Plots

Sanitas™ v.9.6.36 Software licensed to SCS Engineers. UG

Box & Whiskers Plot



Constituent: CHLORIDE Analysis Run 11/29/2022 4:13 PM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

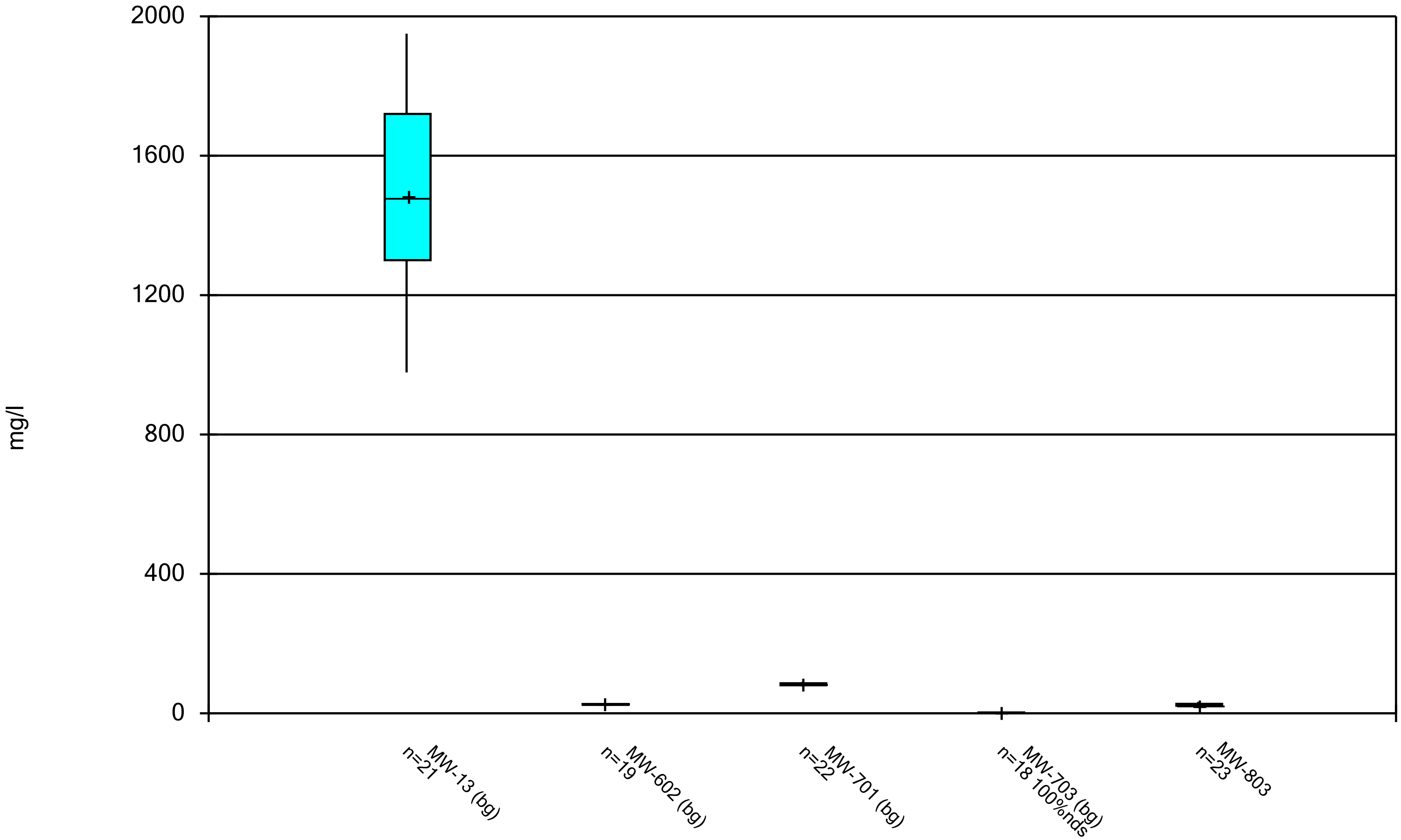
Box & Whiskers Plot

LaCygne   Client: SCS Engineers   Data: LaC GW Data   Printed 11/29/2022, 4:14 PM

Constituent	Well	N	Mean	Std. Dev.	Std. Err.	Median	Min.	Max.	%NDs
CHLORIDE (mg/l)	MW-13 (bg)	23	20.93	12.36	2.577	16.8	12.5	53.8	0
CHLORIDE (mg/l)	MW-602 (bg)	18	17.11	0.4709	0.111	17.1	16.4	17.9	0
CHLORIDE (mg/l)	MW-701 (bg)	21	50.38	2.774	0.6053	49.2	46.2	56.5	0
CHLORIDE (mg/l)	MW-703 (bg)	18	103.5	20.55	4.843	108	22.3	115	0
CHLORIDE (mg/l)	MW-803	23	49.69	0.9474	0.1975	49.5	48.1	51.5	0

Sanitas™ v.9.6.36 Software licensed to SCS Engineers. UG

Box & Whiskers Plot



Constituent: SULFATE Analysis Run 11/29/2022 1:31 PM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

Box & Whiskers Plot

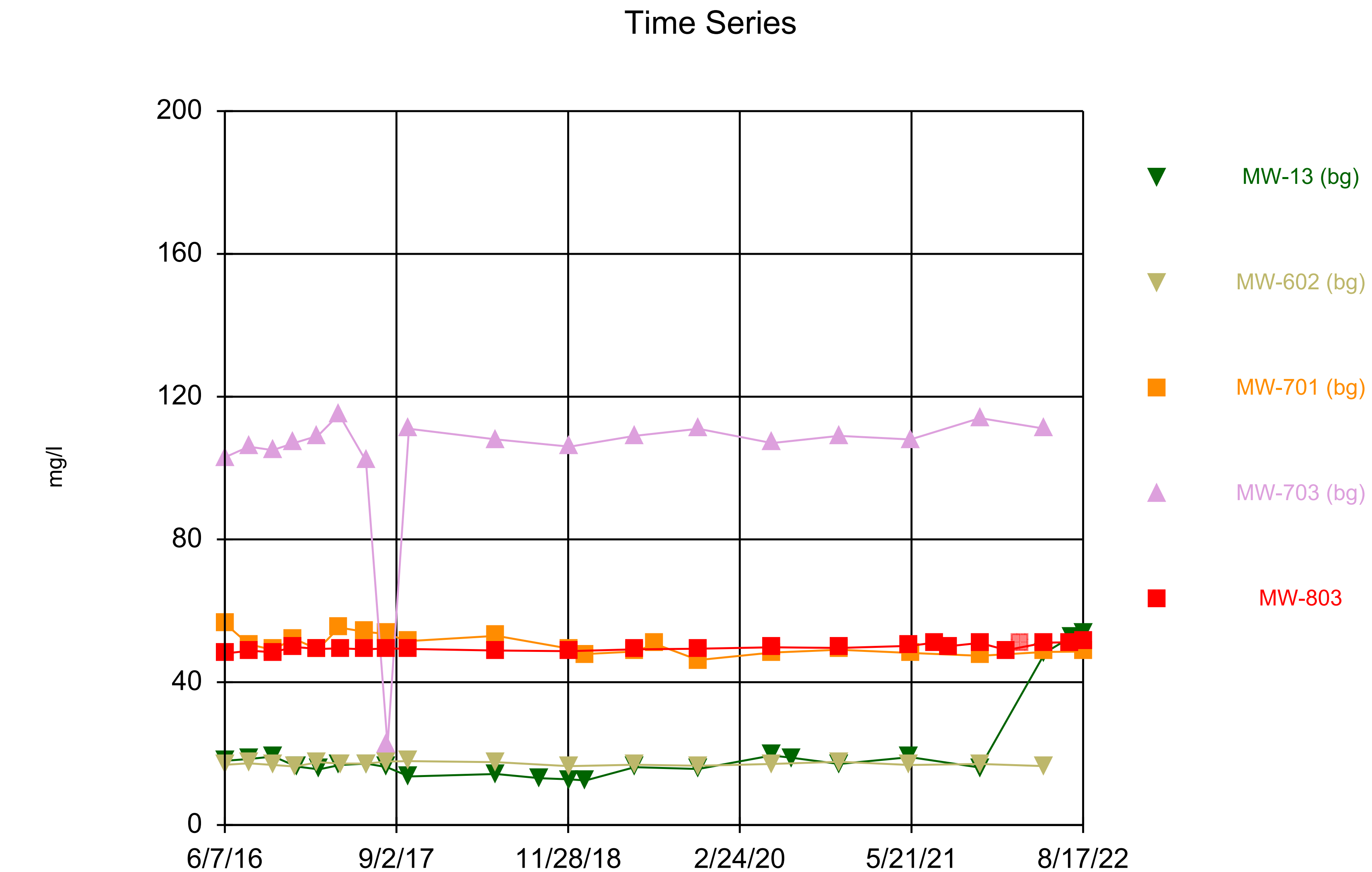
LaCygne   Client: SCS Engineers   Data: LaC GW Data   Printed 11/29/2022, 1:33 PM

Constituent	Well	N	Mean	Std. Dev.	Std. Err.	Median	Min.	Max.	%NDs
SULFATE (mg/l)	MW-13 (bg)	21	1487	283.5	61.86	1480	978	1950	0
SULFATE (mg/l)	MW-602 (bg)	19	25.33	1.362	0.3125	25.1	23.4	28.1	0
SULFATE (mg/l)	MW-701 (bg)	22	83.1	3.73	0.7952	83.35	76.9	90.2	0
SULFATE (mg/l)	MW-703 (bg)	18	2.5	0	0	2.5	2.5	2.5	100
SULFATE (mg/l)	MW-803	23	24.26	4.755	0.9914	24.4	15	32.8	0

Appendix C

Time Series Plots

Sanitas™ v.9.6.36 Software licensed to SCS Engineers. UG



Constituent: CHLORIDE Analysis Run 11/29/2022 4:16 PM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

Time Series

Constituent: CHLORIDE (mg/l) Analysis Run 11/29/2022 4:17 PM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-13 (bg)	MW-602 (bg)	MW-701 (bg)	MW-703 (bg)	MW-803
6/7/2016			56.5	103	
6/9/2016	18				48.1
6/10/2016		16.9			
8/9/2016		17.3	50.6	106	
8/11/2016	18.5				
8/12/2016					48.8
10/11/2016			49.1	105	
10/13/2016	19.2	16.8			48.4
12/6/2016			52.2	107	49.9
12/9/2016		16.4			
12/13/2016	16.4				
2/7/2017			49.2	109	
2/8/2017		17.6			49.3
2/10/2017	15.6				
4/4/2017			55.3	115	
4/6/2017	16.8				
4/7/2017		17.2			49.5
6/13/2017			54.1		49.2
6/14/2017				102	
6/15/2017	17.2	17.2			
8/8/2017	16.2		53.5		
8/9/2017					49.5
8/10/2017		17.8		22.3	
10/3/2017			51.5		
10/4/2017					49.3
10/5/2017	13.6	17.9		111	
5/23/2018	14.3	17.6			48.9
5/24/2018			53	108	
9/17/2018	13.1				
11/30/2018	12.8	16.5			48.7
12/3/2018			49.4	106	
1/14/2019	12.5				
1/15/2019			47.9		
5/23/2019	16.2	16.9	48.6	109	49.2
7/17/2019			50.7		
11/7/2019	15.7	16.6	46.2	111	49.4
5/19/2020	19.5	17.1	48.3	107	49.8
7/13/2020	18.8				
11/12/2020	17.1	17.7	49.1	109	49.6
5/18/2021	19	16.8			50.2
5/19/2021			48.2	108	
7/21/2021					51.1
8/30/2021					50.1
11/18/2021	16.1	17.1	47.4	114	51
1/27/2022					49
5/9/2022	48.3	16.5	48.5	111	51.1
7/15/2022					51.2
7/19/2022	52.8				
8/17/2022	53.8		48.6		51.5

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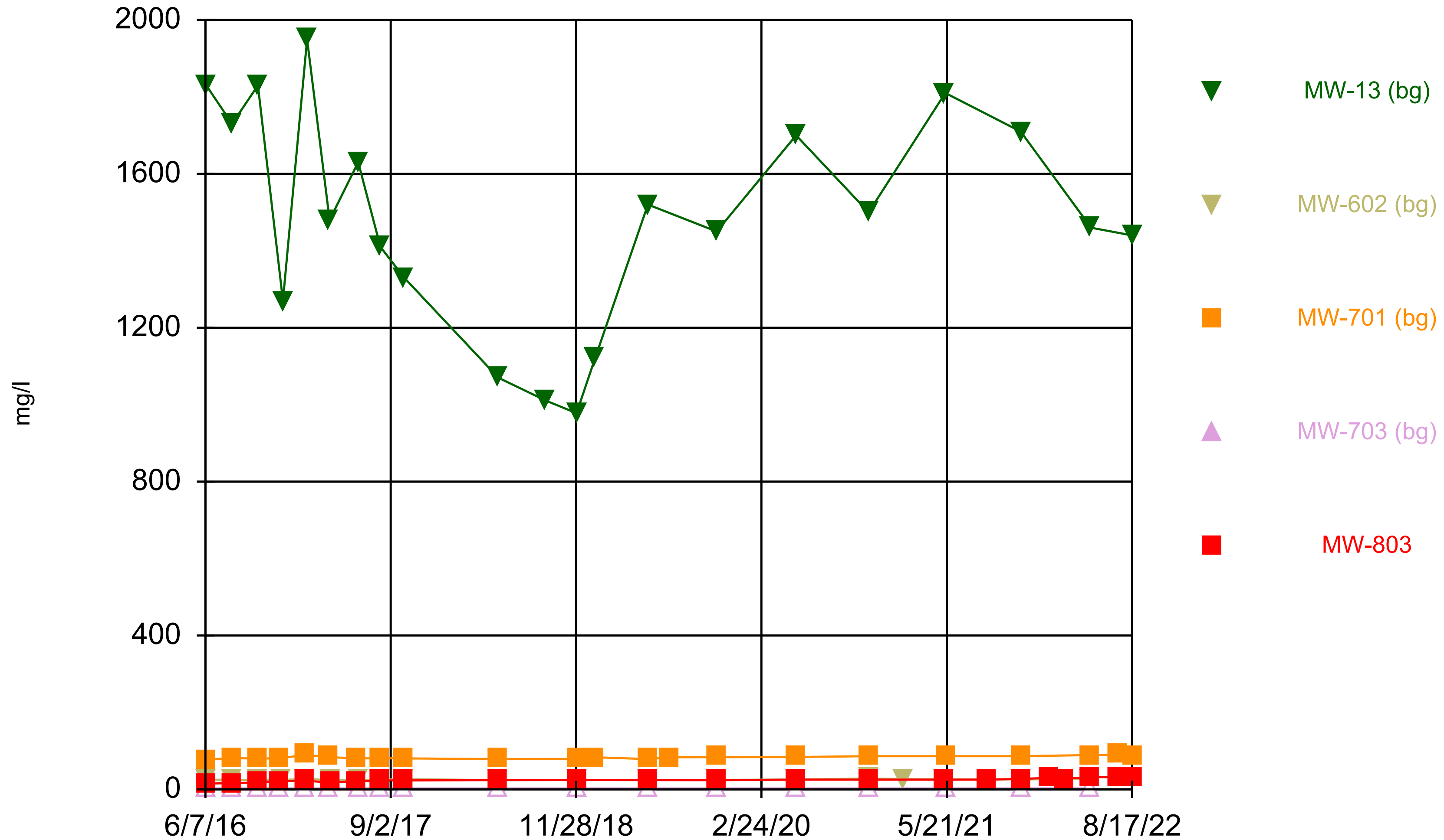
Hollow symbols indicate censored values.

Time Series



Constituent: SULFATE   Analysis Run 11/29/2022 1:30 PM   View: LF LAQC III
LaCygne   Client: SCS Engineers   Data: LaC GW Data

Time Series

Constituent: SULFATE (mg/l) Analysis Run 11/29/2022 1:31 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-13 (bg)	MW-602 (bg)	MW-701 (bg)	MW-703 (bg)	MW-803
6/7/2016			76.9	<5	
6/9/2016	1830				15
6/10/2016		25.1			
8/9/2016		25.2	81.1	<5	
8/11/2016	1730				
8/12/2016					16.2
10/11/2016			80.3	<5	
10/13/2016	1830	23.4			17.9
12/6/2016			80.9	<5	21.9
12/9/2016		24.2			
12/13/2016	1270				
2/7/2017			89.8	<5	
2/8/2017		27.5			22.4
2/10/2017	1950				
4/4/2017			83.8	<5	
4/6/2017	1480				
4/7/2017		23.8			17.8
6/13/2017			80.6		21.2
6/14/2017				<5	
6/15/2017	1630	24.4			
8/8/2017	1410		80.8		
8/9/2017					23.2
8/10/2017		24.8		<5	
10/3/2017			80.6		
10/4/2017					23.2
10/5/2017	1330	26.9		<5	
5/23/2018	1070	23.9			24.4
5/24/2018			78.6	<5	
9/17/2018	1010				
11/30/2018	978	24.2			24.5
12/3/2018			79.1	<5	
1/14/2019	1120				
1/15/2019			83.3		
5/23/2019	1520	24.2	78.8	<5	24.1
7/17/2019			83.4		
11/7/2019	1450	24.5	83.7	<5	24
5/19/2020	1700	25.7	84	<5	25.2
11/12/2020	1500	28.1	86.2	<5	25.2
2/4/2021		26.7			
5/18/2021	1810	26.2			25.2
5/19/2021			86.2	<5	
8/30/2021					25.4
11/18/2021	1710	25.9	86.3	<5	27.2
1/27/2022					30
3/3/2022					27.4
5/9/2022	1460	26.6	89.1	<5	32.1
7/15/2022			90.2		31.6
8/17/2022	1440		84.5		32.8

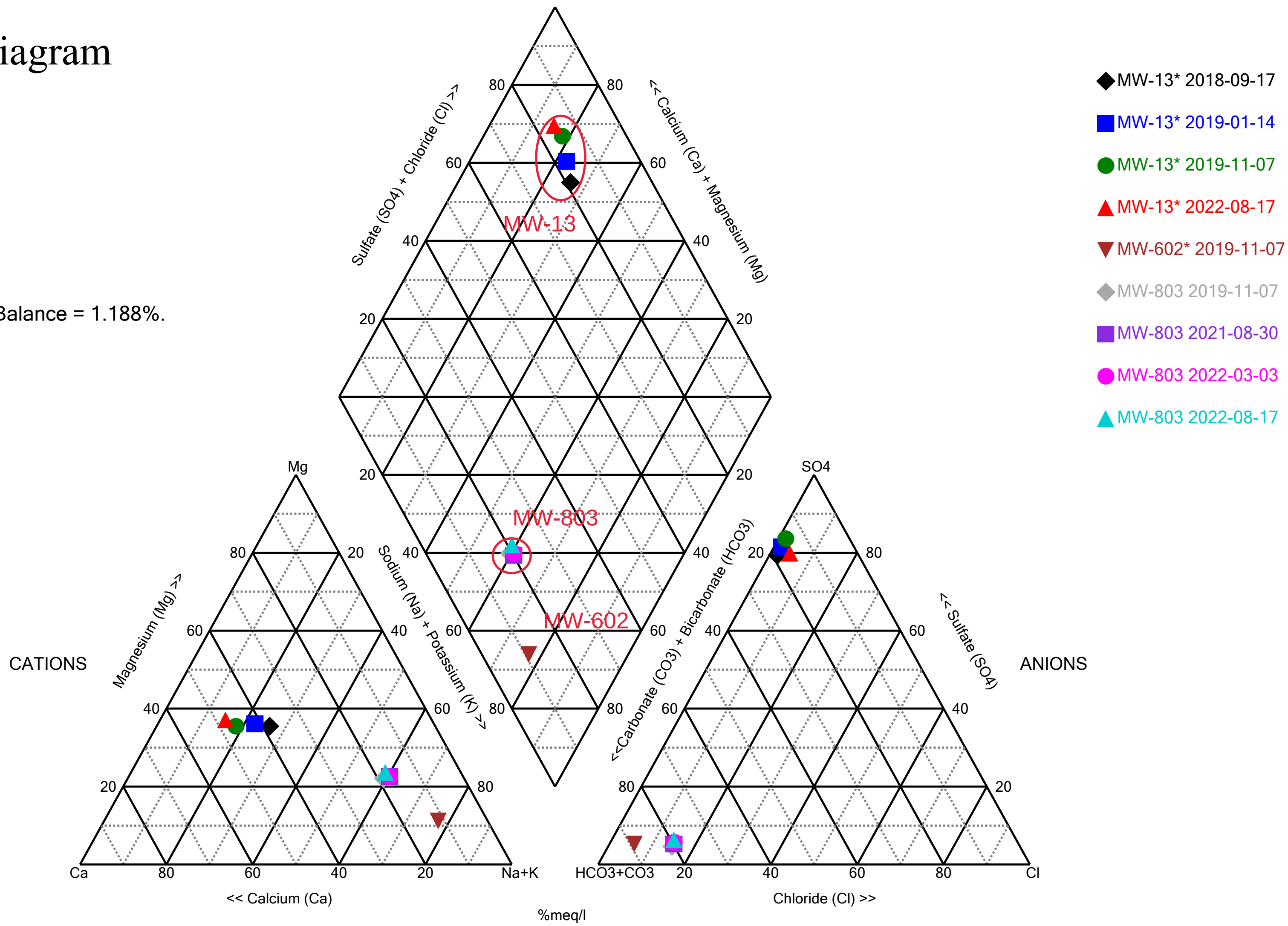
ND substitution: RL/2.

Appendix D

Piper Diagram Plots and Analytical Results

Piper Diagram

Cation-Anion Balance = 1.188%.



Analysis Run 11/29/2022 10:54 AM View: LF LAQC Piper Data

LaCygne Client: SCS Engineers Data: LaC GW Data

Piper Diagram

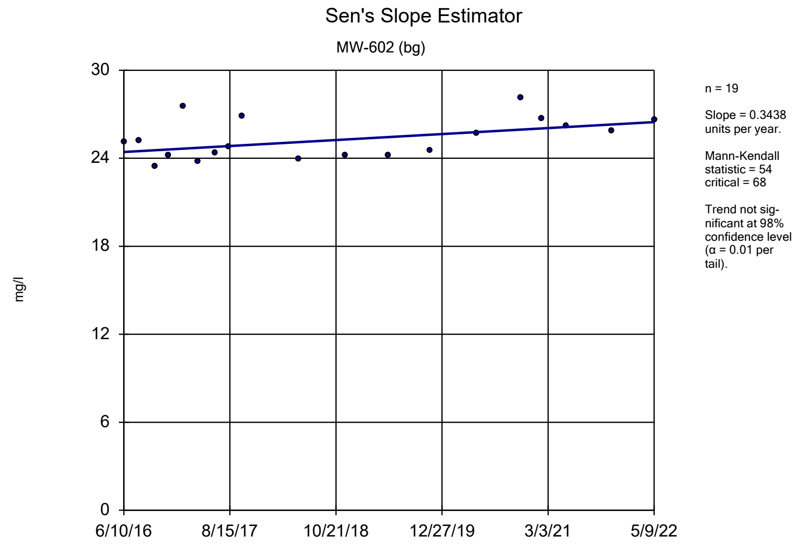
Analysis Run 11/29/2022 10:55 AM   View: LF LAQC Piper Data

LaCygne   Client: SCS Engineers   Data: LaC GW Data

Totals (ppm)	Na	K	Ca	Mg	Cl	SO4	HCO3	CO3
MW-13* 2018-09-17	165	3.55	214	120	13.1	1010	295	10
MW-13* 2019-01-14	151	3.3	247	128	12.5	1120	289	10
MW-13* 2019-11-07	154	3.37	340	159	15.7	1450	321	10
MW-13* 2022-08-17	118	2.93	339	159	53.8	1440	346	10
MW-602* 2019-11-07	192	3.59	24.9	15	16.6	24.5	523	10
MW-803 2019-11-07	154	4.94	43.1	30.4	49.4	24	496	10
MW-803 2021-08-30	156	4.92	39	30.8	50.1	25.4	483	10
MW-803 2022-03-03	151	4.74	37.7	30.1	50.9	27.4	487	10
MW-803 2022-08-17	143	4.76	37.9	31.1	51.5	32.8	506	10

Appendix D

Trend Analysis



Constituent: SULFATE Analysis Run 11/29/2022 6:33 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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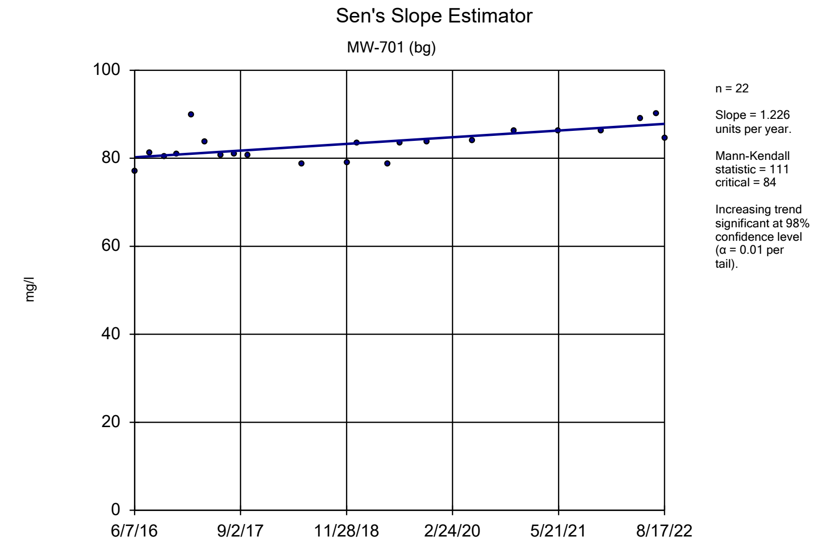
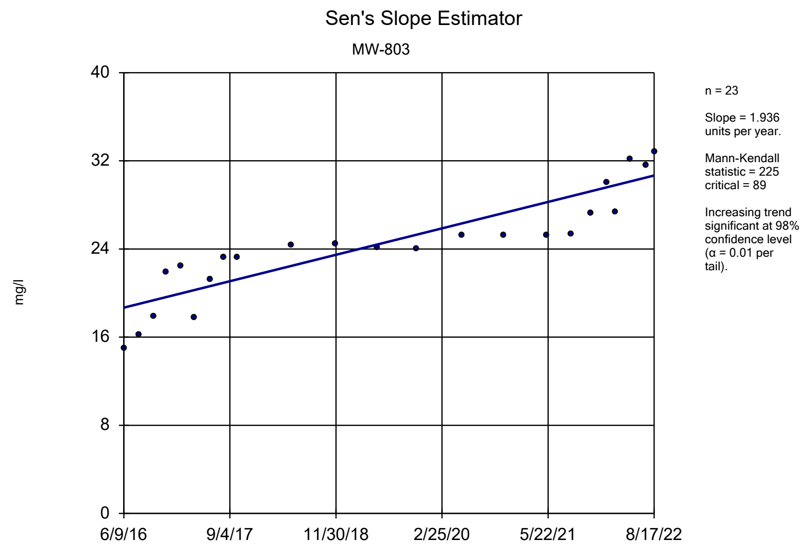


Constituent: SULFATE Analysis Run 11/29/2022 6:33 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Sanitas™ v.9.6.36 Software licensed to SCS Engineers. UG



Constituent: SULFATE Analysis Run 11/29/2022 6:33 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Trend Test

LaCygne   Client: SCS Engineers   Data: LaC GW Data   Printed 11/29/2022, 6:34 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
SULFATE (mg/l)	MW-602 (bg)	0.3438	54	68	No	19	0	n/a	n/a	0.02	NP
SULFATE (mg/l)	**MW-701 (bg)**	**1.226**	**111**	**84**	**Yes**	**22**	**0**	**n/a**	**n/a**	**0.02**	**NP**
SULFATE (mg/l)	**MW-803**	**1.936**	**225**	**89**	**Yes**	**23**	**0**	**n/a**	**n/a**	**0.02**	**NP**

APPENDIX D

LABORATORY ANALYTICAL REPORTS

- January 2022 – First verification sampling for the Fall 2021 detection monitoring event.
- March 2022 – Second verification sampling for the Fall 2021 detection monitoring event.
- May 2022 – Spring 2022 semiannual detection monitoring sampling event.
- July 2022 – First verification sampling for the Spring 2022 detection monitoring sampling event.
- August 2022 – Second verification sampling for Spring 2022 detection monitoring sampling event.
- November 2022 - Fall 2022 semiannual detection monitoring sampling event.

ANALYTICAL REPORT

February 07, 2022

Revised Report

SCS Engineers - KS

Sample Delivery Group:	L1455625
Samples Received:	01/28/2022
Project Number:	27217233.21
Description:	KCPL - LaCygne Generating Station
Report To:	Jason Franks
	8575 West 110th Street
	Suite 100
	Overland Park, KS 66210

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Entire Report Reviewed By:

Jeff Carr
Project Manager

Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

MW-14R L1455625-01 GW

Collected by	Collected date/time	Received date/time
Jason R. Franks	01/27/22 11:20	01/28/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1809961	1	01/29/22 12:30	01/29/22 12:30	KEG	Mt. Juliet, TN

MW-601 L1455625-02 GW

Collected by	Collected date/time	Received date/time
Jason R. Franks	01/27/22 10:45	01/28/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1809961	1	01/29/22 20:28	01/29/22 20:28	KEG	Mt. Juliet, TN

MW-802 L1455625-03 GW

Collected by	Collected date/time	Received date/time
Jason R. Franks	01/27/22 14:10	01/28/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1809961	1	01/29/22 13:15	01/29/22 13:15	KEG	Mt. Juliet, TN

MW-803 L1455625-04 GW

Collected by	Collected date/time	Received date/time
Jason R. Franks	01/27/22 14:35	01/28/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1812130	1	02/02/22 23:27	02/02/22 23:27	LBR	Mt. Juliet, TN

DUPLICATE L L1455625-05 GW

Collected by	Collected date/time	Received date/time
Jason R. Franks	01/27/22 14:35	01/28/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1811233	1	02/01/22 14:51	02/01/22 14:51	ELN	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jeff Carr
Project Manager

Report Revision History

Level II Report - Version 1: 02/03/22 13:15

Project Narrative

This report has been revised. The chloride for sample L1455625-05 was mistakenly reported initially from a run that was loaded incorrectly.

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	6390		379	1000	1	01/29/2022 12:30	WG1809961

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Sulfate	7480		594	5000	1	01/29/2022 20:28	WG1809961

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	36300		379	1000	1	01/29/2022 13:15	WG1809961

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	49000		379	1000	1	02/02/2022 23:27	WG1812130
Sulfate	30000		594	5000	1	02/02/2022 23:27	WG1812130

Cp
Tc
Ss
Cn
Sr
Qc
Gl
Al
Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	49500		379	1000	1	02/01/2022 14:51	WG1811233
Sulfate	30300		594	5000	1	02/01/2022 14:51	WG1811233

Method Blank (MB)

(MB) R3755343-1 01/29/22 10:13

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	536	J	379	1000
Sulfate	U		594	5000

L1455625-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1455625-01 01/29/22 12:30 • (DUP) R3755343-3 01/29/22 12:45

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	6390	6380	1	0.0141		15
Sulfate	67200	67200	1	0.0350		15

L1455811-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1455811-01 01/29/22 17:59 • (DUP) R3755343-8 01/29/22 18:14

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	6990	6900	1	1.27		15
Sulfate	27400	27400	1	0.226		15

Laboratory Control Sample (LCS)

(LCS) R3755343-2 01/29/22 10:27

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	40300	101	80.0-120	
Sulfate	40000	40500	101	80.0-120	

L1455635-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1455635-03 01/29/22 15:29 • (MS) R3755343-6 01/29/22 15:44 • (MSD) R3755343-7 01/29/22 15:59

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Sulfate	50000	4890000	4970000	4720000	160	0.000	100	80.0-120	V	V	5.20	15

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

L1455811-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1455811-05 01/29/22 19:13 • (MS) R3755343-9 01/29/22 19:58 • (MSD) R3755343-10 01/29/22 20:13

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	9860	61300	61600	103	103	1	80.0-120			0.430	15
Sulfate	50000	1280	52100	52200	102	102	1	80.0-120			0.291	15

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R3756085-1 02/01/22 09:35

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	U		379	1000
Sulfate	U		594	5000

L1456441-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1456441-01 02/01/22 11:49 • (DUP) R3756085-3 02/01/22 12:01

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	19500	19500	1	0.0385		15

L1455625-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1455625-05 02/01/22 14:51 • (DUP) R3756085-6 02/01/22 15:04

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	49500	49400	1	0.148		15
Sulfate	30300	30300	1	0.184		15

Laboratory Control Sample (LCS)

(LCS) R3756085-2 02/01/22 09:48

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	39300	98.2	80.0-120	
Sulfate	40000	39700	99.2	80.0-120	

L1456441-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1456441-01 02/01/22 11:49 • (MS) R3756085-4 02/01/22 12:14 • (MSD) R3756085-5 02/01/22 12:27

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Sulfate	50000	19500	67600	68100	96.2	97.3	1	80.0-120			0.820	15

Cp Tc Ss Cn Sr Qc Gl Al Sc

L1456036-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1456036-05 02/01/22 16:21 • (MS) R3756085-7 02/01/22 16:34 • (MSD) R3756085-8 02/01/22 16:47

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Sulfate	50000	379000	405000	408000	53.2	59.7	10	80.0-120	V	V	0.798	15

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R3756521-1 02/02/22 22:34

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	U		379	1000
Sulfate	U		594	5000

L1455625-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1455625-04 02/02/22 23:27 • (DUP) R3756521-3 02/02/22 23:40

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	49000	49200	1	0.302		15
Sulfate	30000	30000	1	0.219		15

L1457152-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1457152-01 02/03/22 02:57 • (DUP) R3756521-6 02/03/22 03:10

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	24900	25700	1	3.23		15
Sulfate	30600	31700	1	3.56		15

Laboratory Control Sample (LCS)

(LCS) R3756521-2 02/02/22 22:47

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	39200	98.0	80.0-120	
Sulfate	40000	39600	98.9	80.0-120	

L1455625-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1455625-04 02/02/22 23:27 • (MS) R3756521-4 02/02/22 23:53 • (MSD) R3756521-5 02/03/22 00:06

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	49000	97700	97900	97.3	97.7	1	80.0-120			0.177	15
Sulfate	50000	30000	79200	79300	98.4	98.7	1	80.0-120			0.158	15

L1457152-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1457152-01 02/03/22 02:57 • (MS) R3756521-7 02/03/22 03:24

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50000	24900	73400	97.1	1	80.0-120	
Sulfate	50000	30600	78300	95.3	1	80.0-120	

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
V	The sample concentration is too high to evaluate accurate spike recoveries.

Cp Tc Ss Cn Sr Qc Gl Al Sc

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
SCS Engineers - KS
8575 West 110th Street
Suite 100
Overland Park, KS 66210

Billing Information:
Accounts Payable
8575 W. 110th Street
Suite 100
Overland Park, KS 66210

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
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

SDG # L1455625

G088

Report to: Jason Franks

Email To: jfranks@scsengineers.com;jay.martin@evergy.c

Project Description: KCPL - LaCygne Generating Station

City/State Collected: La Cygne, KS

Please Circle: PT MT CT ET

Phone: 913-681-0030

Client Project # 27217233.21

Lab Project # AQUAOPKS-LACYGNE

Collected by (print): Jason R. Franks

Site/Facility ID #

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Immediately Packed on Ice N ___ Y ✓

Acctnum: AQUAOPKS
Template: T136292
Prelogin: P900495
PM: 206 - Jeff Carr
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Chloride 125mlHDPE-NoPres	Chloride, Sulfate 125mlHDPE-NoPres	Sulfate 125mlHDPE-NoPres	Remarks	Sample # (lab only)
MW-14R	Grab	GW	-	01/27/22	1120	1	X				-01
MW-601		GW	-		1045	1			X		-02
MW-802		GW	-		1410	1	X				-03
MW-803		GW	-		1435	1		X			-04
MW-803 MS/MSD		GW	-		1435	1		X			
DUPLICATE L		GW	-		1435	1		X			-05

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other________

Remarks:

pH _______ Temp _______
Flow _______ Other _______

Samples returned via:
__ UPS ✓ FedEx __ Courier ________

Tracking # 5300 4291 1325

Sample Receipt Checklist
COC Seal Present/Intact: NP __Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: ✓Y __N
RAD Screen <0.5 mR/hr: ✓Y __N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
[signature]	01/27/22	1600		Ø
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: NSA6 1.5+0=1.5 °C Bottles Received: 6
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) [signature]	Date: 1/28/22 Time: 0945

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

ANALYTICAL REPORT

March 10, 2022

SCS Engineers - KS

Sample Delivery Group:	L1468118
Samples Received:	03/04/2022
Project Number:	27217233.21-J
Description:	KCPL - LaCygne Generating Station
Site:	LACYGNE ENERGY
Report To:	Jason Franks 8575 West 110th Street Suite 100 Overland Park, KS 66210

Entire Report Reviewed By:

Jeff Carr
Project Manager

Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

Collected by	Collected date/time	Received date/time
Britta Coleman	03/03/22 09:55	03/04/22 09:30

MW-14R L1468118-01 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1828252	1	03/06/22 23:53	03/06/22 23:53	LBR	Mt. Juliet, TN

Collected by	Collected date/time	Received date/time
Britta Coleman	03/03/22 00:00	03/04/22 09:30

DUPLICATE L1 L1468118-02 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1828519	1	03/08/22 12:06	03/08/22 12:06	KEG	Mt. Juliet, TN

Collected by	Collected date/time	Received date/time
Britta Coleman	03/03/22 10:40	03/04/22 09:30

MW-601 L1468118-03 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1828519	1	03/08/22 12:21	03/08/22 12:21	KEG	Mt. Juliet, TN

Collected by	Collected date/time	Received date/time
Britta Coleman	03/03/22 12:30	03/04/22 09:30

MW-803 L1468118-04 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1828519	1	03/08/22 12:36	03/08/22 12:36	KEG	Mt. Juliet, TN

Collected by	Collected date/time	Received date/time
Britta Coleman	03/03/22 00:00	03/04/22 09:30

DUPLICATE L2 L1468118-05 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1828519	1	03/08/22 13:35	03/08/22 13:35	KEG	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jeff Carr
Project Manager

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	5970		379	1000	1	03/06/2022 23:53	WG1828252

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	5920		379	1000	1	03/08/2022 12:06	WG1828519

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Sulfate	6580		594	5000	1	03/08/2022 12:21	WG1828519

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Sulfate	27400		594	5000	1	03/08/2022 12:36	WG1828519

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Sulfate	27400		594	5000	1	03/08/2022 13:35	WG1828519

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R3767392-1 03/06/22 17:49

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	U		379	1000

L1468118-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1468118-01 03/06/22 23:53 • (DUP) R3767392-3 03/07/22 00:05

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	5970	5950	1	0.304		15

L1468256-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1468256-04 03/07/22 03:49 • (DUP) R3767392-6 03/07/22 04:01

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	10100	9990	1	0.757		15

Laboratory Control Sample (LCS)

(LCS) R3767392-2 03/06/22 18:02

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	39200	97.9	80.0-120	

L1468118-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1468118-01 03/06/22 23:53 • (MS) R3767392-4 03/07/22 00:17 • (MSD) R3767392-5 03/07/22 00:55

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	5970	59100	58800	106	106	1	80.0-120			0.580	15

L1468256-04 Original Sample (OS) • Matrix Spike (MS)

(OS) L1468256-04 03/07/22 03:49 • (MS) R3767392-7 03/07/22 04:14

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50000	10100	61200	102	1	80.0-120	

Method Blank (MB)

(MB) R3767725-1 03/08/22 09:21

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	U		379	1000
Sulfate	U		594	5000

L1468118-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1468118-04 03/08/22 12:36 • (DUP) R3767725-3 03/08/22 12:51

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	50600	50300	1	0.708		15
Sulfate	27400	27300	1	0.0834		15

L1468406-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1468406-05 03/08/22 18:49 • (DUP) R3767725-6 03/08/22 19:04

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	395	459	1	15.1	J P1	15
Sulfate	U	U	1	0.000		15

Laboratory Control Sample (LCS)

(LCS) R3767725-2 03/08/22 09:36

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	39000	97.5	80.0-120	
Sulfate	40000	38500	96.3	80.0-120	

L1468118-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1468118-04 03/08/22 12:36 • (MS) R3767725-4 03/08/22 13:06 • (MSD) R3767725-5 03/08/22 13:20

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	50600	98900	99800	96.5	98.3	1	80.0-120			0.909	15
Sulfate	50000	27400	76400	76400	98.1	98.2	1	80.0-120			0.0196	15

L1468406-05 Original Sample (OS) • Matrix Spike (MS)

(OS) L1468406-05 03/08/22 18:49 • (MS) R3767725-7 03/08/22 19:19

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	ug/l	ug/l	ug/l	%		%	
Chloride	50000	395	50100	99.4	1	80.0-120	
Sulfate	50000	U	49000	98.0	1	80.0-120	

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
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Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
SCS Engineers - KS
8575 West 110th Street
Suite 100
Overland Park, KS 66210

Billing Information:
Accounts Payable
8575 W. 110th Street
Suite 100
Overland Park, KS 66210

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Pace PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
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

Report to: Jason Franks

Email To: jfranks@scsengineers.com;jay.martin@evergy.c

Project Description: KCPL - LaCygne Generating Station

City/State Collected: La Cygne, KS

Please Circle: PT MT CT ET

Phone: 913-681-0030

Client Project # 27217233.21-J

Lab Project # AQUAOPKS-LACYGNE

SDG # 1468118
H073

Collected by (print): Brista Coleman

Site/Facility ID # LaCygne Energy

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: STD

Acctnum: AQUAOPKS
Template: T136292
Prelogin: P908245
PM: 206 - Jeff Carr
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Chloride 125mlHDPE-NoPres	Sulfate 125mlHDPE-NoPres	Remarks	Sample # (lab only)
MW-14R	Grab	GW	–	3/3/22	0955	1	X			-01
MW-14R MS/MSD	Grab	GW	–	3/3/22	1000	1	X			
DUPLICATE L1	Grab	GW	–	3/3/22		1	X			-02
MW-601	Grab	GW	–	3/3/22	1040	1		X		-03
MW-803	Grab	GW	–	3/3/22	1230	1		X		-04
MW-803 MS/MSD	Grab	GW	–	3/3/22	1240	1		X		
DUPLICATE L2	Grab	GW	–	3/3/22		1		X		-05

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other________

Remarks:

pH ______ Temp ______
Flow ______ Other ______

Samples returned via:
__ UPS __ FedEx __ Courier ________

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: ✓NP __Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: ✓Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	
	3/3/22	1430		Trip Blank Received: Yes / No HCL / MeoH TBR
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.4 °C Bottles Received: 7
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 3/4/22 Time: 0930

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

ANALYTICAL REPORT

March 11, 2022

Pace Analytical®

1 Cp	
2 Tc	
3 Ss	
4 Cn	
5 Sr	
6 Qc	
7 Gl	
8 Al	
9 Sc	

SCS Engineers - KS

Sample Delivery Group:	L1468116
Samples Received:	03/04/2022
Project Number:	27217233.21-J
Description:	Evergy - LaCygne Generating Station
Site:	LACYGNE ENERGY
Report To:	Jason Franks 8575 West 110th Street Suite 100 Overland Park, KS 66210

Entire Report Reviewed By:

Jeff Carr

Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

Cp Tc Ss Cn Sr Qc Gl Al Sc

MW-601 L1468116-01 GW

Collected by	Collected date/time	Received date/time
Britta Coleman	03/03/22 10:40	03/04/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1828291	1	03/07/22 07:23	03/07/22 07:23	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1828252	10	03/06/22 23:15	03/06/22 23:15	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1828751	1	03/09/22 11:49	03/10/22 00:31	CCE	Mt. Juliet, TN

MW-706 L1468116-02 GW

Collected by	Collected date/time	Received date/time
Britta Coleman	03/03/22 11:40	03/04/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1828291	1	03/07/22 07:30	03/07/22 07:30	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1828252	10	03/06/22 23:28	03/06/22 23:28	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1828875	1	03/09/22 20:17	03/10/22 11:02	KMG	Mt. Juliet, TN

MW-803 L1468116-03 GW

Collected by	Collected date/time	Received date/time
Britta Coleman	03/03/22 12:30	03/04/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1828291	1	03/07/22 07:34	03/07/22 07:34	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1828252	1	03/06/22 23:40	03/06/22 23:40	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1828875	1	03/09/22 20:17	03/10/22 11:12	KMG	Mt. Juliet, TN

MW-14R L1468116-04 GW

Collected by	Collected date/time	Received date/time
Britta Coleman	03/03/22 09:55	03/04/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1828291	1	03/07/22 07:38	03/07/22 07:38	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1828517	1	03/08/22 02:58	03/08/22 02:58	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1828875	1	03/09/22 20:17	03/10/22 11:15	KMG	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jeff Carr
Project Manager

Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	665000		8450	20000	1	03/07/2022 07:23	WG1828291
Alkalinity,Carbonate	U		8450	20000	1	03/07/2022 07:23	WG1828291

Sample Narrative:

L1468116-01 WG1828291: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	166000		3790	10000	10	03/06/2022 23:15	WG1828252

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Calcium	16800		79.3	1000	1	03/10/2022 00:31	WG1828751
Magnesium	10300		85.3	1000	1	03/10/2022 00:31	WG1828751
Potassium	4780		261	2000	1	03/10/2022 00:31	WG1828751
Sodium	348000		504	3000	1	03/10/2022 00:31	WG1828751

Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	789000		8450	20000	1	03/07/2022 07:30	WG1828291
Alkalinity,Carbonate	U		8450	20000	1	03/07/2022 07:30	WG1828291

Sample Narrative:

L1468116-02 WG1828291: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	241000		3790	10000	10	03/06/2022 23:28	WG1828252

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Calcium	22700		79.3	1000	1	03/10/2022 11:02	WG1828875
Magnesium	19400		85.3	1000	1	03/10/2022 11:02	WG1828875
Potassium	6240		261	2000	1	03/10/2022 11:02	WG1828875
Sodium	422000	V	504	3000	1	03/10/2022 11:02	WG1828875

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	487000		8450	20000	1	03/07/2022 07:34	WG1828291
Alkalinity,Carbonate	U		8450	20000	1	03/07/2022 07:34	WG1828291

Sample Narrative:

L1468116-03 WG1828291: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	50900		379	1000	1	03/06/2022 23:40	WG1828252

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Calcium	37700		79.3	1000	1	03/10/2022 11:12	WG1828875
Magnesium	30100		85.3	1000	1	03/10/2022 11:12	WG1828875
Potassium	4740		261	2000	1	03/10/2022 11:12	WG1828875
Sodium	151000		504	3000	1	03/10/2022 11:12	WG1828875

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	468000		8450	20000	1	03/07/2022 07:38	WG1828291
Alkalinity,Carbonate	U		8450	20000	1	03/07/2022 07:38	WG1828291

Sample Narrative:

L1468116-04 WG1828291: Endpoint pH 4.5

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Sulfate	60400		594	5000	1	03/08/2022 02:58	WG1828517

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Calcium	48500		79.3	1000	1	03/10/2022 11:15	WG1828875
Magnesium	38000		85.3	1000	1	03/10/2022 11:15	WG1828875
Potassium	4080		261	2000	1	03/10/2022 11:15	WG1828875
Sodium	105000		504	3000	1	03/10/2022 11:15	WG1828875

Method Blank (MB)

(MB) R3766978-2 03/07/22 05:45

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Alkalinity,Bicarbonate	U		8450	20000
Alkalinity,Carbonate	U		8450	20000

Sample Narrative:

BLANK: Endpoint pH 4.5

L1467066-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1467066-01 03/07/22 06:02 • (DUP) R3766978-3 03/07/22 06:06

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	190000	192000	1	1.02		20
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5
DUP: Endpoint pH 4.5

L1468116-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1468116-01 03/07/22 07:23 • (DUP) R3766978-4 03/07/22 07:27

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	665000	665000	1	0.0917		20
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace
DUP: Endpoint pH 4.5

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R3767392-1 03/06/22 17:49

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	U		379	1000

L1468118-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1468118-01 03/06/22 23:53 • (DUP) R3767392-3 03/07/22 00:05

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	5970	5950	1	0.304		15

L1468256-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1468256-04 03/07/22 03:49 • (DUP) R3767392-6 03/07/22 04:01

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	10100	9990	1	0.757		15

Laboratory Control Sample (LCS)

(LCS) R3767392-2 03/06/22 18:02

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	39200	97.9	80.0-120	

L1468118-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1468118-01 03/06/22 23:53 • (MS) R3767392-4 03/07/22 00:17 • (MSD) R3767392-5 03/07/22 00:55

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	5970	59100	58800	106	106	1	80.0-120			0.580	15

L1468256-04 Original Sample (OS) • Matrix Spike (MS)

(OS) L1468256-04 03/07/22 03:49 • (MS) R3767392-7 03/07/22 04:14

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50000	10100	61200	102	1	80.0-120	

Method Blank (MB)

(MB) R3767440-1 03/07/22 20:27

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Sulfate	U		594	5000

L1468117-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1468117-02 03/08/22 04:00 • (DUP) R3767440-6 03/08/22 04:15

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	16700	16600	1	0.432		15

Laboratory Control Sample (LCS)

(LCS) R3767440-2 03/07/22 20:42

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Sulfate	40000	41800	105	80.0-120	

L1468117-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1468117-01 03/08/22 03:13 • (MS) R3767440-4 03/08/22 03:29 • (MSD) R3767440-5 03/08/22 03:44

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Sulfate	50000	16700	63400	63400	93.4	93.4	1	80.0-120			0.0596	15

L1468174-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1468174-01 03/08/22 06:03 • (MS) R3767440-7 03/08/22 06:18 • (MSD) R3767440-8 03/08/22 06:34

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Sulfate	50000	90200	135000	135000	89.3	89.4	1	80.0-120	E	E	0.0266	15

Cp Tc Ss Cn Sr Qc Gl Al Sc

Method Blank (MB)

(MB) R3768206-1 03/09/22 23:11

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Calcium	U		79.3	1000
Magnesium	U		85.3	1000
Potassium	U		261	2000
Sodium	U		504	3000

Laboratory Control Sample (LCS)

(LCS) R3768206-2 03/09/22 23:14

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Calcium	10000	9660	96.6	80.0-120	
Magnesium	10000	9320	93.2	80.0-120	
Potassium	10000	9440	94.4	80.0-120	
Sodium	10000	9780	97.8	80.0-120	

L1468064-18 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1468064-18 03/09/22 23:17 • (MS) R3768206-4 03/09/22 23:23 • (MSD) R3768206-5 03/09/22 23:26

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Calcium	10000	1170000	1170000	1160000	0.000	0.000	1	75.0-125	E V	E V	0.564	20
Magnesium	10000	731000	731000	725000	0.000	0.000	1	75.0-125	V	V	0.828	20
Potassium	10000	17000	29000	28900	119	118	1	75.0-125			0.416	20
Sodium	10000	1080000	1070000	1060000	0.000	0.000	1	75.0-125	E V	E V	0.761	20

Method Blank (MB)

(MB) R3768603-1 03/10/22 10:56

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Calcium	U		79.3	1000
Magnesium	U		85.3	1000
Potassium	U		261	2000
Sodium	U		504	3000

Laboratory Control Sample (LCS)

(LCS) R3768603-2 03/10/22 10:59

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Calcium	10000	9620	96.2	80.0-120	
Magnesium	10000	9740	97.4	80.0-120	
Potassium	10000	9040	90.4	80.0-120	
Sodium	10000	10200	102	80.0-120	

L1468116-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1468116-02 03/10/22 11:02 • (MS) R3768603-4 03/10/22 11:07 • (MSD) R3768603-5 03/10/22 11:10

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Calcium	10000	22700	31700	31500	90.0	87.9	1	75.0-125			0.668	20
Magnesium	10000	19400	28200	28200	88.2	88.3	1	75.0-125			0.0418	20
Potassium	10000	6240	15200	15200	89.5	89.7	1	75.0-125			0.170	20
Sodium	10000	422000	422000	422000	0.000	5.71	1	75.0-125	V	V	0.140	20

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
V	The sample concentration is too high to evaluate accurate spike recoveries.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address: **SCS Engineers - KS** 8575 West 110th Street Suite 100 Overland Park, KS 66210	Billing Information: Accounts Payable 8575 W. 110th Street Suite 100 Overland Park, KS 66210	Pres Chk
Report to: Jason Franks	Email To: jfranks@scsengineers.com;jay.martin@evergy.c	
Project Description: Evergy - LaCygne Generating Station	City/State Collected: La Cygne, KS	Please Circle: PT MT CT ET
Phone: 913-681-0030	Client Project # 27217233.21-J	Lab Project # AQUAOPKS-LACYGNE
Collected by (print): Brissa Coleman	Site/Facility ID # LaCygne Evergy	P.O. #
Collected by (signature): [signature] Immediately Packed on Ice N ___ Y ✓	Rush? (Lab MUST Be Notified) ___ Same Day ___ Five Day ___ Next Day ___ 5 Day (Rad Only) ___ Two Day ___ 10 Day (Rad Only) ___ Three Day	Quote # Date Results Needed: STD

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No of Cntrs	ALKBI, ALKCA 125mlHDPE-NoPres	Ca, K, Mg, Na - 6010 250mlHDPE-HNO3	Chloride - 9056 125mlHDPE-NoPres	SO4 - 9056 125mlHDPE-NoPres	Remarks	Sample # (lab only)
MW-601	Grab	GW	–	3/3/22	1040	3	X	X	X			-01
MW-706	Grab	GW	–	3/3/22	1140	3	X	X	X			-02
MW-803	Grab	GW	–	3/3/22	1230	3	X	X	X			-03
MW-14R	Grab	GW	/	3/3/22	0955	3	X	X		X		-04

Chain of Custody Page 1 of 1

Pace® PEOPLE ADVANCING SCIENCE JC 3/4

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
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

SDG # 1468116
H075

Acctnum: AQUAOPKS
Template: T152974
Prelogin: P908223
PM: 206 - Jeff Carr
PB:
Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other__________

Remarks:

pH ______ Temp ______
Flow ______ Other ______

Samples returned via:
__ UPS __ FedEx __ Courier ________

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: ✓NP _Y _N
COC Signed/Accurate: ✓Y _N
Bottles arrive intact: ✓Y _N
Correct bottles used: ✓Y _N
Sufficient volume sent: ✓Y _N
If Applicable
VOA Zero Headspace: _Y _N
Preservation Correct/Checked: ✓Y _N
RAD Screen <0.5 mR/hr: ✓Y _N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	
[signature]	3/3/22	1430		Trip Blank Received: Yes / No HCL / MeoH TBR
				Temp: 1.4 °C Bottles Received: 12
			Received for lab by: (Signature) [signature]	Date: 3/4/22 Time: 0930

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

ANALYTICAL REPORT

May 31, 2022

SCS Engineers - KS

Sample Delivery Group:	L1492861
Samples Received:	05/10/2022
Project Number:	27217233.21-B
Description:	Evergy - LaCygne Generating Station
Report To:	Jason Franks
	8575 West 110th Street
	Suite 100
	Overland Park, KS 66210

Entire Report Reviewed By:

Jeff Carr
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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Collected by	Collected date/time	Received date/time
B. Coleman	05/09/22 14:50	05/10/22 09:30

MW-10 L1492861-01 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1864413	1	05/16/22 13:29	05/16/22 14:08	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868599	1	05/27/22 22:00	05/27/22 22:00	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1864827	1	05/17/22 08:40	05/17/22 12:59	ZSA	Mt. Juliet, TN

Collected by	Collected date/time	Received date/time
B. Coleman	05/09/22 12:40	05/10/22 09:30

MW-13 L1492861-02 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1864413	1	05/16/22 13:29	05/16/22 14:08	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868599	1	05/27/22 23:19	05/27/22 23:19	KEG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868599	20	05/27/22 23:35	05/27/22 23:35	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1864827	1	05/17/22 08:40	05/17/22 13:01	ZSA	Mt. Juliet, TN

Collected by	Collected date/time	Received date/time
B. Coleman	05/09/22 11:40	05/10/22 09:30

MW-14R L1492861-03 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1864413	1	05/16/22 13:29	05/16/22 14:08	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868603	1	05/27/22 04:50	05/27/22 04:50	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1864827	1	05/17/22 08:40	05/17/22 13:04	ZSA	Mt. Juliet, TN

Collected by	Collected date/time	Received date/time
B. Coleman	05/09/22 11:10	05/10/22 09:30

MW-15 L1492861-04 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1864413	1	05/16/22 13:29	05/16/22 14:08	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868603	1	05/26/22 23:16	05/26/22 23:16	KEG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868603	10	05/26/22 23:32	05/26/22 23:32	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1864827	1	05/17/22 08:40	05/17/22 13:07	ZSA	Mt. Juliet, TN

Collected by	Collected date/time	Received date/time
B. Coleman	05/09/22 13:15	05/10/22 09:30

MW-601 L1492861-05 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1864413	1	05/16/22 13:29	05/16/22 14:08	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868603	1	05/26/22 23:48	05/26/22 23:48	KEG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868603	5	05/27/22 00:04	05/27/22 00:04	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1864827	1	05/17/22 08:40	05/17/22 13:10	ZSA	Mt. Juliet, TN

Collected by	Collected date/time	Received date/time
B. Coleman	05/09/22 12:10	05/10/22 09:30

MW-602 L1492861-06 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1864413	1	05/16/22 13:29	05/16/22 14:08	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868603	1	05/27/22 00:20	05/27/22 00:20	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1864827	1	05/17/22 08:40	05/17/22 13:18	ZSA	Mt. Juliet, TN

MW-801 L1492861-07 GW

Collected by	Collected date/time	Received date/time
B. Coleman	05/09/22 10:20	05/10/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1864112	1	05/15/22 18:01	05/15/22 18:48	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868603	1	05/27/22 01:07	05/27/22 01:07	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1864827	1	05/17/22 08:40	05/17/22 11:50	ZSA	Mt. Juliet, TN

MW-802 L1492861-08 GW

Collected by	Collected date/time	Received date/time
B. Coleman	05/09/22 10:50	05/10/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1864112	1	05/15/22 18:01	05/15/22 18:48	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868603	1	05/27/22 02:11	05/27/22 02:11	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1864827	1	05/17/22 08:40	05/17/22 13:21	ZSA	Mt. Juliet, TN

MW-803 L1492861-09 GW

Collected by	Collected date/time	Received date/time
B. Coleman	05/09/22 11:15	05/10/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1864413	1	05/16/22 13:29	05/16/22 14:08	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868603	1	05/27/22 02:43	05/27/22 02:43	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1864827	1	05/17/22 08:40	05/17/22 13:23	ZSA	Mt. Juliet, TN

MW-804 L1492861-10 GW

Collected by	Collected date/time	Received date/time
B. Coleman	05/09/22 11:40	05/10/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1864413	1	05/16/22 13:29	05/16/22 14:08	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868603	1	05/27/22 02:59	05/27/22 02:59	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1864827	1	05/17/22 08:40	05/17/22 13:26	ZSA	Mt. Juliet, TN

MW-805 L1492861-11 GW

Collected by	Collected date/time	Received date/time
B. Coleman	05/09/22 12:05	05/10/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1864413	1	05/16/22 13:29	05/16/22 14:08	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868603	1	05/27/22 03:15	05/27/22 03:15	KEG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868603	10	05/27/22 03:31	05/27/22 03:31	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1864827	1	05/17/22 08:40	05/17/22 13:29	ZSA	Mt. Juliet, TN

DUPLICATE L1492861-12 GW

Collected by	Collected date/time	Received date/time
B. Coleman	05/09/22 00:00	05/10/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1864413	1	05/16/22 13:29	05/16/22 14:08	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868603	1	05/27/22 04:18	05/27/22 04:18	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1864828	1	05/18/22 04:46	05/19/22 16:02	ZSA	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jeff Carr
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	540000		10000	1	05/16/2022 14:08	WG1864413

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	49200		379	1000	1	05/27/2022 22:00	WG1868599
Fluoride	386		64.0	150	1	05/27/2022 22:00	WG1868599
Sulfate	13600		594	5000	1	05/27/2022 22:00	WG1868599

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	787		20.0	200	1	05/17/2022 12:59	WG1864827
Calcium	48300		79.3	1000	1	05/17/2022 12:59	WG1864827

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2330000		10000	1	05/16/2022 14:08	WG1864413

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	48300		379	1000	1	05/27/2022 23:19	WG1868599
Fluoride	160		64.0	150	1	05/27/2022 23:19	WG1868599
Sulfate	1460000		11900	100000	20	05/27/2022 23:35	WG1868599

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	250		20.0	200	1	05/17/2022 13:01	WG1864827
Calcium	357000		79.3	1000	1	05/17/2022 13:01	WG1864827

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	532000		10000	1	05/16/2022 14:08	WG1864413

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	6430		379	1000	1	05/27/2022 04:50	WG1868603
Fluoride	313		64.0	150	1	05/27/2022 04:50	WG1868603
Sulfate	61700		594	5000	1	05/27/2022 04:50	WG1868603

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	730		20.0	200	1	05/17/2022 13:04	WG1864827
Calcium	52000		79.3	1000	1	05/17/2022 13:04	WG1864827

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	688000		13300	1	05/16/2022 14:08	WG1864413

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	10900		379	1000	1	05/26/2022 23:16	WG1868603
Fluoride	267		64.0	150	1	05/26/2022 23:16	WG1868603
Sulfate	189000		5940	50000	10	05/26/2022 23:32	WG1868603

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	225		20.0	200	1	05/17/2022 13:07	WG1864827
Calcium	95600		79.3	1000	1	05/17/2022 13:07	WG1864827

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	882000		20000	1	05/16/2022 14:08	WG1864413

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	167000		1900	5000	5	05/27/2022 00:04	WG1868603
Fluoride	1640		64.0	150	1	05/26/2022 23:48	WG1868603
Sulfate	6410		594	5000	1	05/26/2022 23:48	WG1868603

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	1850		20.0	200	1	05/17/2022 13:10	WG1864827
Calcium	16600		79.3	1000	1	05/17/2022 13:10	WG1864827

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	ND		10000	1	05/16/2022 14:08	WG1864413

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	16500		379	1000	1	05/27/2022 00:20	WG1868603
Fluoride	1140		64.0	150	1	05/27/2022 00:20	WG1868603
Sulfate	26600		594	5000	1	05/27/2022 00:20	WG1868603

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	2220		20.0	200	1	05/17/2022 13:18	WG1864827
Calcium	21600		79.3	1000	1	05/17/2022 13:18	WG1864827

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	788000		10000	1	05/15/2022 18:48	WG1864112

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	95700		379	1000	1	05/27/2022 01:07	WG1868603
Fluoride	1010		64.0	150	1	05/27/2022 01:07	WG1868603
Sulfate	3250	J	594	5000	1	05/27/2022 01:07	WG1868603

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	2100		20.0	200	1	05/17/2022 11:50	WG1864827
Calcium	22100		79.3	1000	1	05/17/2022 11:50	WG1864827

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	646000		10000	1	05/15/2022 18:48	WG1864112

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	38500		379	1000	1	05/27/2022 02:11	WG1868603
Fluoride	949		64.0	150	1	05/27/2022 02:11	WG1868603
Sulfate	946	J P1	594	5000	1	05/27/2022 02:11	WG1868603

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	2360		20.0	200	1	05/17/2022 13:21	WG1864827
Calcium	28400		79.3	1000	1	05/17/2022 13:21	WG1864827

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	580000		13300	1	05/16/2022 14:08	WG1864413

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	51100		379	1000	1	05/27/2022 02:43	WG1868603
Fluoride	617		64.0	150	1	05/27/2022 02:43	WG1868603
Sulfate	32100		594	5000	1	05/27/2022 02:43	WG1868603

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	2010		20.0	200	1	05/17/2022 13:23	WG1864827
Calcium	41000		79.3	1000	1	05/17/2022 13:23	WG1864827

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	536000		10000	1	05/16/2022 14:08	WG1864413

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	29300		379	1000	1	05/27/2022 02:59	WG1868603
Fluoride	453		64.0	150	1	05/27/2022 02:59	WG1868603
Sulfate	26400		594	5000	1	05/27/2022 02:59	WG1868603

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	1520		20.0	200	1	05/17/2022 13:26	WG1864827
Calcium	62300		79.3	1000	1	05/17/2022 13:26	WG1864827

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1980000		20000	1	05/16/2022 14:08	WG1864413

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	501000		3790	10000	10	05/27/2022 03:31	WG1868603
Fluoride	187		64.0	150	1	05/27/2022 03:15	WG1868603
Sulfate	721000		5940	50000	10	05/27/2022 03:31	WG1868603

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	519		20.0	200	1	05/17/2022 13:29	WG1864827
Calcium	433000		79.3	1000	1	05/17/2022 13:29	WG1864827

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	768000		20000	1	05/16/2022 14:08	WG1864413

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	95800		379	1000	1	05/27/2022 04:18	WG1868603
Fluoride	1010		64.0	150	1	05/27/2022 04:18	WG1868603
Sulfate	3180	J	594	5000	1	05/27/2022 04:18	WG1868603

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	2200		20.0	200	1	05/19/2022 16:02	WG1864828
Calcium	26000		79.3	1000	1	05/19/2022 16:02	WG1864828

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R3792881-1 05/15/22 18:48

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Dissolved Solids	U		10000	10000

L1492161-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1492161-01 05/15/22 18:48 • (DUP) R3792881-3 05/15/22 18:48

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1010000	1080000	1	6.71	J3	5

L1492161-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1492161-02 05/15/22 18:48 • (DUP) R3792881-4 05/15/22 18:48

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	816000	824000	1	0.976		5

Laboratory Control Sample (LCS)

(LCS) R3792881-2 05/15/22 18:48

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	2460000	2400000	97.6	81.7-118	

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R3793421-1 05/16/22 14:08

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Dissolved Solids	U		10000	10000

L1491528-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1491528-04 05/16/22 14:08 • (DUP) R3793421-3 05/16/22 14:08

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	817000	835000	1	2.10		5

L1491528-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1491528-05 05/16/22 14:08 • (DUP) R3793421-4 05/16/22 14:08

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	2240000	2330000	1	3.84		5

Laboratory Control Sample (LCS)

(LCS) R3793421-2 05/16/22 14:08

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	2460000	2500000	102	81.7-118	

QUALITY CONTROL SUMMARY

L1492861-01,02

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R3797535-1 05/27/22 13:15

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	U		379	1000
Fluoride	U		64.0	150
Sulfate	U		594	5000

L1492389-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1492389-02 05/27/22 14:03 • (DUP) R3797535-3 05/27/22 14:19

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	23800	23800	1	0.195		15
Fluoride	157	154	1	2.06		15
Sulfate	52000	51800	1	0.255		15

L1492861-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1492861-01 05/27/22 22:00 • (DUP) R3797535-6 05/27/22 22:16

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	49200	49200	1	0.0500		15
Fluoride	386	385	1	0.286		15
Sulfate	13600	13600	1	0.333		15

Laboratory Control Sample (LCS)

(LCS) R3797535-2 05/27/22 13:31

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	40300	101	80.0-120	
Fluoride	8000	8210	103	80.0-120	
Sulfate	40000	40800	102	80.0-120	

L1492389-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1492389-02 05/27/22 14:03 • (MS) R3797535-4 05/27/22 14:34 • (MSD) R3797535-5 05/27/22 14:50

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	23800	73400	73600	99.0	99.5	1	80.0-120			0.340	15
Fluoride	5000	157	5170	5200	100	101	1	80.0-120			0.696	15
Sulfate	50000	52000	101000	101000	98.0	98.5	1	80.0-120	E	E	0.249	15

L1492861-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1492861-01 05/27/22 22:00 • (MS) R3797535-7 05/27/22 23:03

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50000	49200	98500	98.7	1	80.0-120	
Fluoride	5000	386	5510	102	1	80.0-120	
Sulfate	50000	13600	65300	103	1	80.0-120	

Method Blank (MB)

(MB) R3796720-1 05/26/22 17:47

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	U		379	1000
Fluoride	U		64.0	150
Sulfate	U		594	5000

L1491939-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1491939-01 05/26/22 20:21 • (DUP) R3796720-3 05/26/22 20:37

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	29200	29200	1	0.133		15
Fluoride	152	152	1	0.0658		15
Sulfate	152000	152000	1	0.0618	E	15

L1492861-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1492861-08 05/27/22 02:11 • (DUP) R3796720-7 05/27/22 02:27

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	38500	38500	1	0.0515		15
Fluoride	949	949	1	0.0738		15
Sulfate	946	709	1	28.7	J P1	15

Laboratory Control Sample (LCS)

(LCS) R3796720-2 05/26/22 18:03

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	40200	101	80.0-120	
Fluoride	8000	8200	102	80.0-120	
Sulfate	40000	40600	102	80.0-120	

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

L1491939-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1491939-01 05/26/22 20:21 • (MS) R3796720-4 05/26/22 20:53

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50000	29200	77300	96.1	1	80.0-120	
Fluoride	5000	152	5020	97.3	1	80.0-120	
Sulfate	50000	152000	194000	84.7	1	80.0-120	E

L1492861-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1492861-07 05/27/22 01:07 • (MS) R3796720-5 05/27/22 01:23 • (MSD) R3796720-6 05/27/22 01:39

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	95700	142000	143000	92.9	95.6	1	80.0-120	E	E	0.919	15
Fluoride	5000	1010	6110	6270	102	105	1	80.0-120			2.62	15
Sulfate	50000	3250	53700	55000	101	104	1	80.0-120			2.53	15

Method Blank (MB)

(MB) R3792776-1 05/17/22 11:45

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Boron	U		20.0	200
Calcium	U		79.3	1000

Laboratory Control Sample (LCS)

(LCS) R3792776-2 05/17/22 11:47

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1000	973	97.3	80.0-120	
Calcium	10000	9610	96.1	80.0-120	

L1492861-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1492861-07 05/17/22 11:50 • (MS) R3792776-4 05/17/22 11:56 • (MSD) R3792776-5 05/17/22 11:58

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1000	2100	3090	3110	98.8	100	1	75.0-125			0.546	20
Calcium	10000	22100	33500	33600	113	115	1	75.0-125			0.408	20

Method Blank (MB)

(MB) R3793878-1 05/19/22 14:45

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Boron	U		20.0	200
Calcium	U		79.3	1000

Laboratory Control Sample (LCS)

(LCS) R3793878-2 05/19/22 14:48

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1000	958	95.8	80.0-120	
Calcium	10000	9650	96.5	80.0-120	

L1492113-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1492113-01 05/19/22 14:50 • (MS) R3793878-4 05/19/22 14:56 • (MSD) R3793878-5 05/19/22 14:58

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1000	87.7	1070	1080	98.7	99.7	1	75.0-125			0.912	20
Calcium	10000	148000	157000	156000	80.8	78.9	1	75.0-125			0.123	20

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:	Billing Information:	Pres Chk	Analysis / Container / Preservative	Chain of Custody Page 1 of 2
SCS Engineers - KS 8575 West 110th Street Suite 100 Overland Park, KS 66210	Accounts Payable 8575 W. 110th Street Suite 100 Overland Park, KS 66210			Pace PEOPLE ADVANCING SCIENCE MT JULIET, TN 12065 Lebanon Rd Mount Juliet, TN 37122 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

Report to: Jason Franks

Email To: jfranks@scsengineers.com;jay.martin@evergy.c

Project Description: Evergy - LaCygne Generating Station

City/State Collected: LaCygne, KS

Please Circle: PT MT CT ET

Phone: 913-681-0030

Client Project # 27217233.21-B

Lab Project # AQUAOPKS-LACYGNE

SDG # L1492261 G081

Collected by (print): B. Coleman

Site/Facility ID #

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: STD

Immediately Packed on Ice N ___ Y ✓

Acctnum: AQUAOPKS
Template: T157983
Prelogin: P922503
PM: 206 - Jeff Carr
PB:
Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Anions (Cld, F, SO4) 125mlHDPE-NoPres	B, Ca - 6010 250mlHDPE-HNO3	TDS 250mlHDPE-NoPres							Remarks	Sample # (lab only)
MW-10	Grab	GW	-	5/9/22	1450	3	X	X	X								01
MW-13	↓	GW	↓	↓	1240	3	X	X	X								02
MW-14R		GW			1140	3	X	X	X								03
MW-15		GW			1105	3	X	X	X								04
MW-601		GW			1315	3	X	X	X								05
MW-602		GW			1210	3	X	X	X								06
MW-801		GW			1020	3	X	X	X								07
MW-802		GW			1050	3	X	X	X								08
MW-803		GW			1115	3	X	X	X								09
MW-804		GW			1140	3	X	X	X								10

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other ______

Remarks:

pH ______ Temp ______
Flow ______ Other ______

Samples returned via:
__ UPS __ FedEx __ Courier ______

Tracking # 5300 4294 3813

Sample Receipt Checklist
COC Seal Present/Intact: ✓NP _Y _N
COC Signed/Accurate: ✓Y _N
Bottles arrive intact: ✓Y _N
Correct bottles used: ✓Y _N
Sufficient volume sent: ✓Y _N
If Applicable
VOA Zero Headspace: _Y _N
Preservation Correct/Checked: ✓Y _N
RAD Screen <0.5 mR/hr: ✓Y _N

Relinquished by : (Signature)	Date: 5/9/22	Time: 1630	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.3+0=1.3 Bottles Received: 39
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 5/10/22 Time: 0930

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Company Name/Address:	Billing Information:	Pres Chk	Analysis / Container / Preservative	Chain of Custody Page 2 of 2
SCS Engineers - KS 8575 West 110th Street Suite 100 Overland Park, KS 66210	Accounts Payable 8575 W. 110th Street Suite 100 Overland Park, KS 66210			Pace PEOPLE ADVANCING SCIENCE MT JULIET, TN 12065 Lebanon Rd Mount Juliet, TN 37122 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
Report to: Jason Franks	Email To: jfranks@scsengineers.com;jay.martin@evergy.c			
Project Description: Evergy - LaCygne Generating Station	City/State Collected: La Cygne, KS	Please Circle: PT MT CT ET		
Phone: 913-681-0030	Client Project # 27217233.21-B	Lab Project # AQUAOPKS-LACYGNE		SDG # L1492861
Collected by (print): B. Coleman	Site/Facility ID #	P.O. #		Table #
Collected by (signature): Immediately Packed on Ice N ___ Y ___	Rush? (Lab MUST Be Notified) ___ Same Day ___ Five Day ___ Next Day ___ 5 Day (Rad Only) ___ Two Day ___ 10 Day (Rad Only) ___ Three Day	Quote # Date Results Needed: STD		Acctnum: AQUAOPKS Template: T157983 Prelogin: P922503 PM: 206 - Jeff Carr PB: Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Anions (Cld, F, SO4) 125mlHDPE-NoPres	B, Ca - 6010 250mlHDPE-HNO3	TDS 250mlHDPE-NoPres							Remarks	Sample # (lab only)
MW-805	Grab	GW	-	5/9/22	1205	3	X	X	X								11
DUPLICATE		GW			-	3	X	X	X								12
MD/MSD		GW			-	3	X	X	X								13

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other ________

Remarks:

pH ______ Temp ______
Flow ______ Other ______

Samples returned via: __ UPS __ FedEx __ Courier ________

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: _NP _Y _N
COC Signed/Accurate: _Y _N
Bottles arrive intact: _Y _N
Correct bottles used: _Y _N
Sufficient volume sent: _Y _N
If Applicable
VOA Zero Headspace: _Y _N
Preservation Correct/Checked: _Y _N
RAD Screen <0.5 mR/hr: _Y _N

Relinquished by : (Signature)	Date: 5/9/22	Time: 1630	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: DRAI °C 1.3+0=1.3 Bottles Received: 39	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 5/10/22 Time: 0930	Hold: Condition: NCF / OK

ANALYTICAL REPORT

July 27, 2022

SCS Engineers - KS

Sample Delivery Group:	L1516815
Samples Received:	07/20/2022
Project Number:	27217233.22-I
Description:	Evergy La Cygne Gen Station GW 2022-23
Report To:	Jason Franks 8575 West 110th Street Suite 100 Overland Park, KS 66210

Entire Report Reviewed By:

Jeff Carr

Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

	Collected by	Collected date/time	Received date/time
MW-13 L1516815-01 GW	Jason Franks	07/19/22 09:10	07/20/22 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1899765	5	07/23/22 15:56	07/23/22 15:56	ELN	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jeff Carr
Project Manager

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	52800		1900	5000	5	07/23/2022 15:56	WG1899765

Method Blank (MB)

(MB) R3819418-1 07/23/22 11:12

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	U		379	1000

L1515807-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1515807-01 07/23/22 12:43 • (DUP) R3819418-3 07/23/22 12:58

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	14000	14000	1	0.0879		15

L1516930-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1516930-02 07/23/22 18:55 • (DUP) R3819418-6 07/23/22 19:10

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	3400	3420	1	0.598		15

Laboratory Control Sample (LCS)

(LCS) R3819418-2 07/23/22 11:27

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	38700	96.8	80.0-120	

L1515807-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1515807-01 07/23/22 12:43 • (MS) R3819418-4 07/23/22 13:12 • (MSD) R3819418-5 07/23/22 13:27

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	14000	63700	63500	99.3	98.9	1	80.0-120			0.319	15

L1516930-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1516930-02 07/23/22 18:55 • (MS) R3819418-7 07/23/22 19:25

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50000	3400	53500	100	1	80.0-120	

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

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Abbreviations and Definitions

MDL	Method Detection Limit.
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Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
	The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:	Billing Information:	Pres Chk	Analysis / Container / Preservative	Chain of Custody Page 1 of 1
SCS Engineers - KS 8575 West 110th Street Suite 100 Overland Park, KS 66210	Accounts Payable 8575 W. 110th Street Suite 100 Overland Park, KS 66210			Pace PEOPLE ADVANCING SCIENCE MT JULIET, TN 12065 Lebanon Rd Mount Juliet, TN 37122 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
Report to: Jason Franks	Email To: jfranks@scsengineers.com;jay.martin@evergy.c			
Project Description: Evergy La Cygne Gen Station GW 2022-23	City/State Collected: La Cygne KS	Please Circle: PT MT CT ET		SDG # L1516815 F208
Phone: 913-681-0030	Client Project # 27217233.22-I	Lab Project # AQUAOPKS-LACYGNE		Acctnum: AQUAOPKS
Collected by (print): JASON FRANKS	Site/Facility ID #	P.O. #		Template: T212775
Collected by (signature): [signature] Immediately Packed on Ice N ___ Y ✓	Rush? (Lab MUST Be Notified) ___ Same Day ___ Five Day ___ Next Day ___ 5 Day (Rad Only) ___ Two Day ___ 10 Day (Rad Only) ___ Three Day	Quote # Date Results Needed		Prelogin: P937595 PM: 206 - Jeff Carr PB: Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Chloride 125mlHDPE-NoPres	Chloride, SO4 125mlHDPE-NoPres	Sulfate 125mlHDPE-NoPres								Remarks	Sample # (lab only)
MW-13	GRAB	GW	–	7/19/22	0910	1	X											-01
[redacted]		[redacted]				[redacted]		[redacted]										
[redacted]		[redacted]				[redacted]		[redacted]										
[redacted]		[redacted]				[redacted]		[redacted]										
[redacted]		[redacted]				[redacted]			[redacted]									

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_________

Remarks:

pH ______ Temp ______
Flow ______ Other ______

Samples returned via:
__ UPS __ FedEx __ Courier ________

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: ✓NP _Y _N
COC Signed/Accurate: ✓Y _N
Bottles arrive intact: ✓Y _N
Correct bottles used: ✓Y _N
Sufficient volume sent: ✓Y _N
If Applicable
VOA Zero Headspace: _Y _N
Preservation Correct/Checked: ✓Y _N
RAD Screen <0.5 mR/hr: ✓Y _N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)		Trip Blank Received: Yes / No HCL / MeoH TBR
[signature]	7/19/22	1430	[signature]	7-19-22 1430	O
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp DR14 °C 0.3+0=0.3	Bottles Received: 1
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) [signature]	Date: 7/20/22	Time: 800

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

ANALYTICAL REPORT

August 03, 2022

SCS Engineers - KS

Sample Delivery Group:	L1515914
Samples Received:	07/16/2022
Project Number:	27217233.22-I
Description:	Evergy La Cygne Gen Station GW 2022-23
Report To:	Jason Franks 8575 West 110th Street Suite 100 Overland Park, KS 66210

Entire Report Reviewed By:

Jeff Carr

Project Manager

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

MW-803 L1515914-01 GW

Collected by	Collected date/time	Received date/time
A Thompson	07/15/22 12:45	07/16/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1900328	1	07/25/22 20:44	07/25/22 20:44	ELN	Mt. Juliet, TN

DUPLICATE L L1515914-02 GW

Collected by	Collected date/time	Received date/time
A Thompson	07/15/22 12:50	07/16/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1899469	1	07/23/22 06:07	07/23/22 06:07	LBR	Mt. Juliet, TN

MW-804 L1515914-03 GW

Collected by	Collected date/time	Received date/time
A Thompson	07/15/22 12:00	07/16/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1899469	1	07/23/22 06:37	07/23/22 06:37	LBR	Mt. Juliet, TN

MW-701 L1515914-04 GW

Collected by	Collected date/time	Received date/time
A Thompson	07/15/22 14:45	07/16/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1899469	1	07/23/22 06:52	07/23/22 06:52	LBR	Mt. Juliet, TN

MW-704 L1515914-05 GW

Collected by	Collected date/time	Received date/time
A Thompson	07/15/22 14:00	07/16/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1899469	1	07/23/22 01:54	07/23/22 01:54	LBR	Mt. Juliet, TN

DUPLICATE U1 L1515914-06 GW

Collected by	Collected date/time	Received date/time
A Thompson	07/15/22 14:10	07/16/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1899469	1	07/23/22 07:07	07/23/22 07:07	LBR	Mt. Juliet, TN

MW-707B L1515914-07 GW

Collected by	Collected date/time	Received date/time
A Thompson	07/15/22 10:55	07/16/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1899469	1	07/23/22 07:22	07/23/22 07:22	JD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1899469	100	07/23/22 08:07	07/23/22 08:07	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1903515	1	08/01/22 00:26	08/01/22 18:26	CCE	Mt. Juliet, TN

DUPLICATE U2 L1515914-08 GW

Collected by	Collected date/time	Received date/time
A Thompson	07/15/22 11:05	07/16/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1899469	1	07/23/22 08:51	07/23/22 08:51	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1899469	100	07/23/22 09:06	07/23/22 09:06	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1900533	1	08/01/22 09:42	08/02/22 15:51	KMG	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jeff Carr
Project Manager

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	51200		379	1000	1	07/25/2022 20:44	WG1900328
Sulfate	31600		594	5000	1	07/25/2022 20:44	WG1900328

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	50800		379	1000	1	07/23/2022 06:07	WG1899469
Sulfate	31100		594	5000	1	07/23/2022 06:07	WG1899469

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Sulfate	27400		594	5000	1	07/23/2022 06:37	WG1899469

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Sulfate	90200		594	5000	1	07/23/2022 06:52	WG1899469

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	95200		379	1000	1	07/23/2022 01:54	WG1899469

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	95400		379	1000	1	07/23/2022 07:07	WG1899469

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Fluoride	328	J6	64.0	150	1	07/23/2022 07:22	WG1899469
Sulfate	5390000	V	59400	500000	100	07/23/2022 08:07	WG1899469

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Calcium	399000		79.3	1000	1	08/01/2022 18:26	WG1903515

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Fluoride	315		64.0	150	1	07/23/2022 08:51	WG1899469
Sulfate	5930000		59400	500000	100	07/23/2022 09:06	WG1899469

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Calcium	407000		79.3	1000	1	08/02/2022 15:51	WG1900533

Cp Tc Ss Cn Sr Qc Gl Al Sc

Method Blank (MB)

(MB) R3818508-1 07/23/22 00:40

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	U		379	1000
Fluoride	U		64.0	150
Sulfate	U		594	5000

L1515869-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1515869-01 07/23/22 01:24 • (DUP) R3818508-3 07/23/22 01:39

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	98700	98600	1	0.0820		15
Fluoride	171	161	1	6.09		15
Sulfate	116000	116000	1	0.768		15

L1515914-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1515914-02 07/23/22 06:07 • (DUP) R3818508-6 07/23/22 06:22

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	50800	50800	1	0.0272		15
Fluoride	616	649	1	5.21		15
Sulfate	31100	31100	1	0.110		15

Laboratory Control Sample (LCS)

(LCS) R3818508-2 07/23/22 00:54

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	39800	99.4	80.0-120	
Fluoride	8000	8260	103	80.0-120	
Sulfate	40000	40500	101	80.0-120	

L1515914-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1515914-05 07/23/22 01:54 • (MS) R3818508-4 07/23/22 02:09 • (MSD) R3818508-5 07/23/22 02:54

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	95200	142000	142000	94.2	94.2	1	80.0-120			0.000913	15
Fluoride	5000	805	5670	5810	97.4	100	1	80.0-120			2.32	15
Sulfate	50000	156000	203000	203000	93.4	93.9	1	80.0-120	E	E	0.129	15

L1515914-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1515914-07 07/23/22 07:22 • (MS) R3818508-7 07/23/22 07:37 • (MSD) R3818508-8 07/23/22 07:52

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	167000	211000	210000	88.6	86.0	1	80.0-120	E	E	0.632	15
Fluoride	5000	328	4440	4280	82.2	79.0	1	80.0-120		J6	3.64	15
Sulfate	50000	5500000	5310000	5300000	0.000	0.000	1	80.0-120	E V	E V	0.0253	15

QUALITY CONTROL SUMMARY

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R3819173-1 07/25/22 14:03

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	U		379	1000
Sulfate	U		594	5000

L1514736-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1514736-11 07/25/22 19:17 • (DUP) R3819173-3 07/25/22 19:29

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	426000	427000	5	0.225		15
Sulfate	427000	427000	5	0.0434		15

L1517757-16 Original Sample (OS) • Duplicate (DUP)

(OS) L1517757-16 07/25/22 23:50 • (DUP) R3819173-6 07/26/22 00:03

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	6410	6480	1	1.04		15
Sulfate	172000	173000	1	0.153		15

Laboratory Control Sample (LCS)

(LCS) R3819173-2 07/25/22 14:16

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	40100	100	80.0-120	
Sulfate	40000	40500	101	80.0-120	

L1515914-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1515914-01 07/25/22 20:44 • (MS) R3819173-4 07/25/22 20:56 • (MSD) R3819173-5 07/25/22 21:09

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	51200	98000	98000	93.6	93.6	1	80.0-120			0.0488	15
Sulfate	50000	31600	79400	79200	95.6	95.2	1	80.0-120			0.247	15

L1517757-17 Original Sample (OS) • Matrix Spike (MS)

(OS) L1517757-17 07/26/22 00:15 • (MS) R3819173-7 07/26/22 00:28

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50000	3110	53400	101	1	80.0-120	
Sulfate	50000	112000	155000	87.4	1	80.0-120	

Method Blank (MB)

(MB) R3821914-1 08/02/22 14:46

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Calcium	U		79.3	1000

Laboratory Control Sample (LCS)

(LCS) R3821914-2 08/02/22 14:49

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
Calcium	10000	9520	95.2	80.0-120	

L1515678-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1515678-01 08/02/22 14:51 • (MS) R3821914-4 08/02/22 14:57 • (MSD) R3821914-5 08/02/22 14:59

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Calcium	10000	35000	44800	44900	97.4	98.4	1	75.0-125			0.222	20

Method Blank (MB)

(MB) R3821509-1 08/01/22 18:21

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Calcium	U		79.3	1000

Laboratory Control Sample (LCS)

(LCS) R3821509-2 08/01/22 18:23

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Calcium	10000	10300	103	80.0-120	

L1515914-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1515914-07 08/01/22 18:26 • (MS) R3821509-4 08/01/22 18:32 • (MSD) R3821509-5 08/01/22 18:35

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Calcium	10000	399000	405000	402000	59.9	21.3	1	75.0-125	V	V	0.956	20

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
V	The sample concentration is too high to evaluate accurate spike recoveries.

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Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
SCS Engineers - KS
8575 West 110th Street
Suite 100
Overland Park, KS 66210

Billing Information:
Accounts Payable
8575 W. 110th Street
Suite 100
Overland Park, KS 66210

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Pace PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
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

Report to: Jason Franks

Email To: jfranks@scsengineers.com;jay.martin@evergy.c

Project Description: Evergy La Cygne Gen Station GW 2022-23

City/State Collected:

Please Circle: PT MT CT ET

Phone: 913-681-0030

Client Project # 27217233.22-I

Lab Project # AQUAOPKS-LACYGNE

SDG # 1515914

G217

Collected by (print): A Thompson

Site/Facility ID #

P.O. #

Acctnum: AQUAOPKS
Template: T212775
Prelogin: P937595
PM: 206 - Jeff Carr
PB:
Shipped Via: FedEX Ground

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Chloride 125mlHDPE-NoPres	Chloride, SO4 125mlHDPE-NoPres	Sulfate 125mlHDPE-NoPres	Remarks	Sample # (lab only)
~~MW-13~~		~~GW~~				1	X				
MW-803	G	GW		7/15	1245	1		X			-01
MW-803 MS/MSD	G	GW		7/15	1255	1		X			
DUPLICATE L	G	GW		7/15	1250	1		X			-02
MW-804	G	GW		7/15	1200	1			X		-03

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_________

Remarks:

pH _______ Temp _______

Flow _______ Other _______

Samples returned via:
__ UPS __ FedEx __ Courier ___________

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: ✓NP _Y _N
COC Signed/Accurate: ✓Y _N
Bottles arrive intact: ✓Y _N
Correct bottles used: ✓Y _N
Sufficient volume sent: ✓Y _N
If Applicable
VOA Zero Headspace: _Y _N
Preservation Correct/Checked: ✓Y _N
RAD Screen <0.5 mR/hr: ✓Y _N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
	7/15	1630		

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.7 °C	Bottles Received: 14	If preservation required by Login: Date/Time

Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 7/16/22	Time: 0900	Hold:	Condition: NCF / OK

Company Name/Address:

SCS Engineers - KS

8575 West 110th Street
Suite 100
Overland Park, KS 66210

Billing Information:

Accounts Payable
8575 W. 110th Street
Suite 100
Overland Park, KS 66210

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 2 of 2

Pace PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
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Report to: Jason Franks

Email To: jfranks@scsengineers.com;jay.martin@evergy.c

Project Description: Evergy La Cygne Gen Station GW 2022-23

City/State Collected:

Please Circle: PT MT CT ET

Phone: 913-681-0030

Client Project # 27217233.22-I

Lab Project # AQUAOPKS-LACYGNE

SDG # L1519714

Table #

Collected by (print): A Thompson

Site/Facility ID #

P.O. #

Acctnum: AQUAOPKS
Template: T136292
Prelogin: P937598
PM: 206 - Jeff Carr
PB:
Shipped Via:

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Calcium 250mlHDPE-HNO3	Chloride 125mlHDPE-NoPres	Fluoride, SO4 125mlHDPE-NoPres	Sulfate 125mlHDPE-NoPres						Remarks	Sample # (lab only)
MW-701	Grab	GW		7/15	1445	1				X							-04
MW-704	G	GW		7/15	1400	1		X									-05
MW-704 MS/MSD	G	GW		7/15	1405	1		X									-05
DUPLICATE U1	G	GW		7/15	1410	1		X									-06
MW-707B	G	GW		7/15	1055	2	X		X								-07
MW-707B MS/MSD	G	GW		7/15	1100	2	X		X								-07
DUPLICATE U2	G	GW		7/15	1105	2	X		X								-08

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_________

Remarks:

pH _______ Temp _______

Flow _______ Other _______

Samples returned via:
__ UPS __ FedEx __ Courier ___________

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: ✓NP __Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: ✓Y __N
RAD Screen <0.5 mR/hr: ✓Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeOH TBR	
	7/15	1630			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 5.7 °C Bottles Received: 14	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 7/16/22 Time: 0900	Hold: Condition: NCF / OK

ANALYTICAL REPORT

August 26, 2022

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

SCS Engineers - KS

Sample Delivery Group:	L1527025
Samples Received:	08/18/2022
Project Number:	27217233.22-I
Description:	Evergy La Cygne Gen Station GW 2022-23
Report To:	Jason Franks 8575 West 110th Street Suite 100 Overland Park, KS 66210

Entire Report Reviewed By:

Jason Romer
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

MW-13 L1527025-01 GW

Collected by	Collected date/time	Received date/time
Whit Martin	08/17/22 13:30	08/18/22 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1913564	1	08/20/22 12:43	08/20/22 12:43	GEB	Mt. Juliet, TN

MW-803 L1527025-02 GW

Collected by	Collected date/time	Received date/time
Whit Martin	08/17/22 11:45	08/18/22 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1913564	1	08/20/22 13:00	08/20/22 13:00	GEB	Mt. Juliet, TN

DUPLICATE L L1527025-03 GW

Collected by	Collected date/time	Received date/time
Whit Martin	08/17/22 11:45	08/18/22 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1913564	1	08/20/22 14:42	08/20/22 14:42	GEB	Mt. Juliet, TN

MW-804 L1527025-04 GW

Collected by	Collected date/time	Received date/time
Whit Martin	08/17/22 10:55	08/18/22 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1913564	1	08/20/22 14:59	08/20/22 14:59	GEB	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jason Romer
Project Manager

Cp
Tc
Ss
Cn
Sr
Qc
Gl
Al
Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	53800		379	1000	1	08/20/2022 12:43	WG1913564

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	51500		379	1000	1	08/20/2022 13:00	WG1913564
Sulfate	32800		594	5000	1	08/20/2022 13:00	WG1913564

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	51400		379	1000	1	08/20/2022 14:42	WG1913564
Sulfate	32400		594	5000	1	08/20/2022 14:42	WG1913564

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Sulfate	26100		594	5000	1	08/20/2022 14:59	WG1913564

Cp Tc Ss Cn Sr Qc Gl Al Sc

Method Blank (MB)

(MB) R3829381-1 08/20/22 10:51

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	U		379	1000
Sulfate	U		594	5000

L1527025-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1527025-02 08/20/22 13:00 • (DUP) R3829381-3 08/20/22 13:17

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	51500	51500	1	0.0293		15
Sulfate	32800	32800	1	0.0207		15

L1527056-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1527056-07 08/20/22 20:04 • (DUP) R3829381-6 08/20/22 20:21

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	27000	27000	1	0.0969		15
Sulfate	9890	9890	1	0.0374		15

Laboratory Control Sample (LCS)

(LCS) R3829381-2 08/20/22 11:08

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	40200	101	80.0-120	
Sulfate	40000	41100	103	80.0-120	

L1527025-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1527025-02 08/20/22 13:00 • (MS) R3829381-4 08/20/22 13:34 • (MSD) R3829381-5 08/20/22 13:51

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	51500	101000	101000	98.1	98.9	1	80.0-120	E	E	0.373	15
Sulfate	50000	32800	82700	83100	99.8	101	1	80.0-120			0.480	15

L1527056-07 Original Sample (OS) • Matrix Spike (MS)

(OS) L1527056-07 08/20/22 20:04 • (MS) R3829381-7 08/20/22 20:38

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50000	27000	77800	101	1	80.0-120	
Sulfate	50000	9890	61200	103	1	80.0-120	

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
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Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
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Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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8575 West 110th Street
Suite 100
Overland Park, KS 66210

Billing Information:
Accounts Payable
8575 W. 110th Street
Suite 100
Overland Park, KS 66210

Pres Chk

Report to: Jason Franks

Email To: jfranks@scsengineers.com;jay.martin@evergy.c

Project Description: Evergy La Cygne Gen Station GW 2022-23

City/State Collected: LaCygne, KS

Please Circle: PT MT CT ET

Phone: 913-681-0030

Client Project # 27217233.22-I

Lab Project # AQUAOPKS-LACYGNE

Collected by (print): Whit Martin

Site/Facility ID #

P.O. #

Collected by (signature): Whit Martin

Immediately Packed on Ice N____ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: std

Chain of Custody Page 1 of 1

Pace PEOPLE ADVANCING SCIENCE

MT JULIET, TN

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SDG # L1527025

B232

Acctnum: AQUAOPKS
Template: T212775
Prelogin: P943785
PM: 206 - Jeff Carr
PB:
Shipped Via: FedEX Ground

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Chloride 125mlHDPE-NoPres	Chloride, SO4 125mlHDPE-NoPres	Sulfate 125mlHDPE-NoPres	Remarks	Sample # (lab only)
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MW-803 MS/MSD	Grab	GW		8/17/22	1145	1		X			-02
DUPLICATE L	Grab	GW		8/17/22	1145	1		X			-03
MW-804	Grab	GW		8/17/22	1055	1			X		-04

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other________

Remarks:

pH ______ Temp ______

Flow ______ Other ______

Samples returned via:
__ UPS __ FedEx __ Courier ________

Tracking # 5300 4294 5389

Sample Receipt Checklist
COC Seal Present/Intact: NP _Y _N
COC Signed/Accurate: Y _N
Bottles arrive intact: Y _N
Correct bottles used: Y _N
Sufficient volume sent: Y _N
If Applicable
VOA Zero Headspace: _Y _N
Preservation Correct/Checked: _Y N
RAD Screen <0.5 mR/hr: Y _N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	
Whit Martin	8/17/22	1635		Trip Blank Received: Yes / No HCL / MeoH TBR
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 5.6+0=5.6 °C Bottles Received: 5
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) M. Welsh	Date: 8/18/22 Time: 845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

ANALYTICAL REPORT

August 29, 2022

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

SCS Engineers - KS

Sample Delivery Group:	L1527030
Samples Received:	08/18/2022
Project Number:	27217233.22 - I
Description:	Evergy La Cygne Gen Station GW 2022-23
Report To:	Jason Franks 8575 West 110th Street Suite 100 Overland Park, KS 66210

Entire Report Reviewed By:

Jason Romer
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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	Collected by	Collected date/time	Received date/time
MW-701 L1527030-01 GW	Whit Martin	08/17/22 14:15	08/18/22 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1917623	1	08/28/22 11:56	08/28/22 11:56	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1913564	1	08/20/22 15:16	08/20/22 15:16	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1914436	1	08/24/22 22:32	08/25/22 14:25	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1914436	1	08/24/22 22:32	08/26/22 08:02	ABL	Mt. Juliet, TN

	Collected by	Collected date/time	Received date/time
MW-704 L1527030-02 GW	Whit Martin	08/17/22 15:00	08/18/22 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1917623	1	08/28/22 12:00	08/28/22 12:00	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1913564	10	08/20/22 15:33	08/20/22 15:33	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1914436	1	08/24/22 22:32	08/25/22 15:29	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1914436	1	08/24/22 22:32	08/26/22 08:16	ABL	Mt. Juliet, TN

	Collected by	Collected date/time	Received date/time
MW-707B L1527030-03 GW	Whit Martin	08/17/22 12:35	08/18/22 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1917623	1	08/28/22 12:04	08/28/22 12:04	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1915346	5	08/24/22 02:56	08/24/22 02:56	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1914436	1	08/24/22 22:32	08/25/22 15:32	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1914436	5	08/24/22 22:32	08/26/22 08:19	ABL	Mt. Juliet, TN

	Collected by	Collected date/time	Received date/time
MW-13 L1527030-04 GW	Whit Martin	08/17/22 13:30	08/18/22 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1917623	1	08/28/22 12:07	08/28/22 12:07	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1913564	50	08/20/22 16:07	08/20/22 16:07	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1914436	1	08/24/22 22:32	08/25/22 15:35	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1914436	1	08/24/22 22:32	08/26/22 08:21	ABL	Mt. Juliet, TN

	Collected by	Collected date/time	Received date/time
MW-803 L1527030-05 GW	Whit Martin	08/17/22 11:45	08/18/22 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1917623	1	08/28/22 12:18	08/28/22 12:18	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1914436	1	08/24/22 22:32	08/25/22 15:38	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1914436	1	08/24/22 22:32	08/26/22 08:29	ABL	Mt. Juliet, TN

	Collected by	Collected date/time	Received date/time
MW-804 L1527030-06 GW	Whit Martin	08/17/22 10:55	08/18/22 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1917623	1	08/28/22 12:22	08/28/22 12:22	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1913564	1	08/20/22 16:24	08/20/22 16:24	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1914436	1	08/24/22 22:32	08/25/22 15:41	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1914436	1	08/24/22 22:32	08/26/22 08:32	ABL	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jason Romer
Project Manager

Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	375000		8450	20000	1	08/28/2022 11:56	WG1917623
Alkalinity,Carbonate	U		8450	20000	1	08/28/2022 11:56	WG1917623

Sample Narrative:

L1527030-01 WG1917623: Endpoint pH 4.5

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	48600		379	1000	1	08/20/2022 15:16	WG1913564

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Calcium	42000		79.3	1000	1	08/25/2022 14:25	WG1914436
Magnesium	8910		85.3	1000	1	08/26/2022 08:02	WG1914436
Potassium	3230		261	2000	1	08/25/2022 14:25	WG1914436
Sodium	153000	V	504	3000	1	08/25/2022 14:25	WG1914436

Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	869000		8450	20000	1	08/28/2022 12:00	WG1917623
Alkalinity,Carbonate	U		8450	20000	1	08/28/2022 12:00	WG1917623

Sample Narrative:

L1527030-02 WG1917623: Endpoint pH 4.5

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Sulfate	154000		5940	50000	10	08/20/2022 15:33	WG1913564

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Calcium	19800		79.3	1000	1	08/25/2022 15:29	WG1914436
Magnesium	15600		85.3	1000	1	08/26/2022 08:16	WG1914436
Potassium	5630		261	2000	1	08/25/2022 15:29	WG1914436
Sodium	405000		504	3000	1	08/25/2022 15:29	WG1914436

Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	548000		8450	20000	1	08/28/2022 12:04	WG1917623
Alkalinity,Carbonate	U		8450	20000	1	08/28/2022 12:04	WG1917623

Sample Narrative:

L1527030-03 WG1917623: Endpoint pH 4.5

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	194000		1900	5000	5	08/24/2022 02:56	WG1915346

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Calcium	285000		79.3	1000	1	08/25/2022 15:32	WG1914436
Magnesium	510000		426	5000	5	08/26/2022 08:19	WG1914436
Potassium	19200		1300	10000	5	08/26/2022 08:19	WG1914436
Sodium	1070000		2520	15000	5	08/26/2022 08:19	WG1914436

Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	346000		8450	20000	1	08/28/2022 12:07	WG1917623
Alkalinity,Carbonate	U		8450	20000	1	08/28/2022 12:07	WG1917623

Sample Narrative:

L1527030-04 WG1917623: Endpoint pH 4.5

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Sulfate	1440000		29700	250000	50	08/20/2022 16:07	WG1913564

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Calcium	339000		79.3	1000	1	08/25/2022 15:35	WG1914436
Magnesium	159000		85.3	1000	1	08/26/2022 08:21	WG1914436
Potassium	2930		261	2000	1	08/25/2022 15:35	WG1914436
Sodium	118000		504	3000	1	08/25/2022 15:35	WG1914436

Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	506000		8450	20000	1	08/28/2022 12:18	WG1917623
Alkalinity,Carbonate	U		8450	20000	1	08/28/2022 12:18	WG1917623

Sample Narrative:

L1527030-05 WG1917623: Endpoint pH 4.5

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Calcium	37900		79.3	1000	1	08/25/2022 15:38	WG1914436
Magnesium	31100		85.3	1000	1	08/26/2022 08:29	WG1914436
Potassium	4760		261	2000	1	08/25/2022 15:38	WG1914436
Sodium	143000		504	3000	1	08/25/2022 15:38	WG1914436

Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	479000		8450	20000	1	08/28/2022 12:22	WG1917623
Alkalinity,Carbonate	U		8450	20000	1	08/28/2022 12:22	WG1917623

Sample Narrative:

L1527030-06 WG1917623: Endpoint pH 4.5

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	30000		379	1000	1	08/20/2022 16:24	WG1913564

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Calcium	59900		79.3	1000	1	08/25/2022 15:41	WG1914436
Magnesium	22000		85.3	1000	1	08/26/2022 08:32	WG1914436
Potassium	2720		261	2000	1	08/25/2022 15:41	WG1914436
Sodium	113000		504	3000	1	08/25/2022 15:41	WG1914436

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R3831272-2 08/28/22 11:21

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Alkalinity,Bicarbonate	U		8450	20000
Alkalinity,Carbonate	U		8450	20000

Sample Narrative:

BLANK: Endpoint pH 4.5

L1526287-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1526287-01 08/28/22 11:38 • (DUP) R3831272-3 08/28/22 11:43

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	150000	151000	1	0.636		20
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5

DUP: Endpoint pH 4.5

L1527219-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1527219-07 08/28/22 13:00 • (DUP) R3831272-4 08/28/22 13:04

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	164000	162000	1	1.13		20
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5

DUP: Endpoint pH 4.5

QUALITY CONTROL SUMMARY

L1527030-01,02,04,06

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R3829381-1 08/20/22 10:51

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	U		379	1000
Sulfate	U		594	5000

L1527025-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1527025-02 08/20/22 13:00 • (DUP) R3829381-3 08/20/22 13:17

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	51500	51500	1	0.0293		15
Sulfate	32800	32800	1	0.0207		15

L1527056-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1527056-07 08/20/22 20:04 • (DUP) R3829381-6 08/20/22 20:21

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	27000	27000	1	0.0969		15
Sulfate	9890	9890	1	0.0374		15

Laboratory Control Sample (LCS)

(LCS) R3829381-2 08/20/22 11:08

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	40200	101	80.0-120	
Sulfate	40000	41100	103	80.0-120	

L1527025-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1527025-02 08/20/22 13:00 • (MS) R3829381-4 08/20/22 13:34 • (MSD) R3829381-5 08/20/22 13:51

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	51500	101000	101000	98.1	98.9	1	80.0-120	E	E	0.373	15
Sulfate	50000	32800	82700	83100	99.8	101	1	80.0-120			0.480	15

L1527056-07 Original Sample (OS) • Matrix Spike (MS)

(OS) L1527056-07 08/20/22 20:04 • (MS) R3829381-7 08/20/22 20:38

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50000	27000	77800	101	1	80.0-120	
Sulfate	50000	9890	61200	103	1	80.0-120	

Method Blank (MB)

(MB) R3830099-1 08/23/22 20:47

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	U		379	1000

L1528159-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1528159-05 08/24/22 00:01 • (DUP) R3830099-3 08/24/22 00:14

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	U	U	1	0.000		15

L1528223-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1528223-05 08/24/22 01:28 • (DUP) R3830099-5 08/24/22 02:06

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	7000	6910	1	1.30		15

Laboratory Control Sample (LCS)

(LCS) R3830099-2 08/23/22 21:00

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	40000	100	80.0-120	

L1528159-05 Original Sample (OS) • Matrix Spike (MS)

(OS) L1528159-05 08/24/22 00:01 • (MS) R3830099-4 08/24/22 00:26

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50000	U	51200	102	1	80.0-120	

L1528223-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1528223-05 08/24/22 01:28 • (MS) R3830099-6 08/24/22 02:18 • (MSD) R3830099-7 08/24/22 02:31

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	7000	57700	57200	101	100	1	80.0-120			0.909	15

Method Blank (MB)

(MB) R3830657-1 08/25/22 14:20

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Calcium	U		79.3	1000
Potassium	U		261	2000
Sodium	U		504	3000

Method Blank (MB)

(MB) R3830803-1 08/26/22 07:57

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Magnesium	U		85.3	1000

Laboratory Control Sample (LCS)

(LCS) R3830657-2 08/25/22 14:22

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Calcium	10000	9060	90.6	80.0-120	
Potassium	10000	9080	90.8	80.0-120	
Sodium	10000	9210	92.1	80.0-120	

Laboratory Control Sample (LCS)

(LCS) R3830803-2 08/26/22 08:00

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Magnesium	10000	9710	97.1	80.0-120	

L1527030-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1527030-01 08/25/22 14:25 • (MS) R3830657-4 08/25/22 14:31 • (MSD) R3830657-5 08/25/22 14:34

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Calcium	10000	42000	50100	50300	80.8	82.2	1	75.0-125			0.280	20
Potassium	10000	3230	12600	12800	94.0	95.7	1	75.0-125			1.37	20
Sodium	10000	153000	157000	158000	42.7	48.5	1	75.0-125	V	V	0.366	20

L1527030-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1527030-01 08/26/22 08:02 • (MS) R3830803-4 08/26/22 08:08 • (MSD) R3830803-5 08/26/22 08:10

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Magnesium	10000	8910	18400	18400	94.6	94.5	1	75.0-125			0.0764	20

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
V	The sample concentration is too high to evaluate accurate spike recoveries.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:	Billing Information:	Pres Chk	Analysis / Container / Preservative	Chain of Custody Page 1 of 1
SCS Engineers - KS 8575 West 110th Street Suite 100 Overland Park, KS 66210	Accounts Payable 8575 W. 110th Street Suite 100 Overland Park, KS 66210			Pace PEOPLE ADVANCING SCIENCE MT JULIET, TN 12065 Lebanon Rd Mount Juliet, TN 37122 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

Report to: Jason Franks

Email To: jfranks@scsengineers.com;jay.martin@evergy.c

Project Description: Evergy La Cygne Gen Station GW 2022-23

City/State Collected: La Cygne, KS

Please Circle: PT MT CT ET

Phone: 913-681-0030

Client Project #: 27217233.22 - I

Lab Project #: AQUAOPKS-LACYGNE

Collected by (print): Whit Martin

Site/Facility ID #:

P.O. #:

Collected by (signature): Whit Martin

Quote #:

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed: Std

Immediately Packed on Ice N ___ Y X

SDG # L1527030

B233

Acctnum: AQUAOPKS
Template: T152974
Prelogin: P943786
PM: 206 - Jeff Carr
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No of Cntrs	ALKBI, ALKCA 125mlHDPE-NoPres	Ca, K, Mg, Na - 6010 250mlHDPE-HNO3	Chloride - 9056 125mlHDPE-NoPres	SO4 - 9056 125mlHDPE-NoPres						Remarks	Sample # (lab only)
MW-701	Grab	GW		8/17/22	1415	3	X	X	X								-01
MW-704	Grab	GW		8/17/22	1500	3	X	X		X							-02
MW-707B	Grab	GW		8/17/22	1235	3	X	X	X								-03
MW-13	Grab	GW		8/17/22	1330	3	X	X		X							-04
MW-803	Grab	GW		8/17/22	1145	2	X	X									-05
MW-804	Grab	GW		8/17/22	1055	3	X	X	X								-06

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other________

Remarks:

pH ______ Temp ______
Flow ______ Other ______

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Samples returned via:
__ UPS __ FedEx __ Courier ________

Tracking # 5300 4294 5389

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Whit Martin	8/17/22	1635		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 5.6+0=5.6 °C Bottles Received: 17
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) M. Webb	Date: 8/18/22 Time: 845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

ANALYTICAL REPORT

November 29, 2022

SCS Engineers - KS

Sample Delivery Group:	L1556298
Samples Received:	11/10/2022
Project Number:	27217233.22-A
Description:	Evergy La Cygne Gen Station GW 2022-23
Report To:	Jason Franks 8575 West 110th Street Suite 100 Overland Park, KS 66210

Entire Report Reviewed By:

Jeff Carr
Project Manager

Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

MW-10 L1556298-01 GW

Collected by	Collected date/time	Received date/time
Matt Vander Putten	11/09/22 15:05	11/10/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1960390	1	11/16/22 09:43	11/16/22 10:43	AS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1958664	1	11/14/22 20:37	11/14/22 20:37	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1959197	1	11/24/22 01:08	11/24/22 18:09	KMG	Mt. Juliet, TN

MW-13 L1556298-02 GW

Collected by	Collected date/time	Received date/time
Matt Vander Putten	11/09/22 12:55	11/10/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1960390	1	11/16/22 09:43	11/16/22 10:43	AS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1958664	1	11/14/22 21:31	11/14/22 21:31	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1959988	10	11/16/22 01:08	11/16/22 01:08	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1959197	1	11/24/22 01:08	11/24/22 18:12	KMG	Mt. Juliet, TN

MW-14R L1556298-03 GW

Collected by	Collected date/time	Received date/time
Matt Vander Putten	11/09/22 12:30	11/10/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1960390	1	11/16/22 09:43	11/16/22 10:43	AS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1958664	1	11/14/22 21:48	11/14/22 21:48	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1959197	1	11/24/22 01:08	11/24/22 18:15	KMG	Mt. Juliet, TN

MW-15 L1556298-04 GW

Collected by	Collected date/time	Received date/time
Matt Vander Putten	11/09/22 10:50	11/10/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1960390	1	11/16/22 09:43	11/16/22 10:43	AS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1958664	1	11/14/22 22:06	11/14/22 22:06	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1959197	1	11/24/22 01:08	11/24/22 18:23	KMG	Mt. Juliet, TN

MW-601 L1556298-05 GW

Collected by	Collected date/time	Received date/time
Matt Vander Putten	11/09/22 12:05	11/10/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1960390	1	11/16/22 09:43	11/16/22 10:43	AS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1958664	1	11/14/22 22:24	11/14/22 22:24	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1959197	1	11/24/22 01:08	11/24/22 18:26	KMG	Mt. Juliet, TN

MW-602 L1556298-06 GW

Collected by	Collected date/time	Received date/time
Matt Vander Putten	11/09/22 14:05	11/10/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1960390	1	11/16/22 09:43	11/16/22 10:43	AS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1958664	1	11/14/22 22:42	11/14/22 22:42	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1959197	1	11/24/22 01:08	11/24/22 18:29	KMG	Mt. Juliet, TN

Collected by	Collected date/time	Received date/time
Matt Vander Putten	11/09/22 13:55	11/10/22 09:00

MW-801 L1556298-07 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1960383	1	11/16/22 08:14	11/16/22 11:32	SGB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1958664	1	11/14/22 23:00	11/14/22 23:00	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1964958	1	11/27/22 21:56	11/28/22 17:44	ZSA	Mt. Juliet, TN

Collected by	Collected date/time	Received date/time
Matt Vander Putten	11/09/22 13:15	11/10/22 09:00

MW-802 L1556298-08 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1960383	1	11/16/22 08:14	11/16/22 11:32	SGB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1958664	1	11/15/22 00:11	11/15/22 00:11	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1959197	1	11/24/22 01:08	11/24/22 18:32	KMG	Mt. Juliet, TN

Collected by	Collected date/time	Received date/time
Matt Vander Putten	11/09/22 12:35	11/10/22 09:00

MW-803 L1556298-09 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1960383	1	11/16/22 08:14	11/16/22 11:32	SGB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1958664	1	11/15/22 01:05	11/15/22 01:05	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1959197	1	11/24/22 01:08	11/24/22 18:34	KMG	Mt. Juliet, TN

Collected by	Collected date/time	Received date/time
Matt Vander Putten	11/09/22 11:30	11/10/22 09:00

MW-804 L1556298-10 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1960383	1	11/16/22 08:14	11/16/22 11:32	SGB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1958664	1	11/15/22 01:23	11/15/22 01:23	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1959197	1	11/24/22 01:08	11/24/22 18:37	KMG	Mt. Juliet, TN

Collected by	Collected date/time	Received date/time
Matt Vander Putten	11/09/22 12:00	11/10/22 09:00

MW-805 L1556298-11 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1960390	1	11/16/22 09:43	11/16/22 10:43	AS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1958664	1	11/15/22 01:41	11/15/22 01:41	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1958664	10	11/15/22 01:59	11/15/22 01:59	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1959197	1	11/24/22 01:08	11/24/22 18:40	KMG	Mt. Juliet, TN

Collected by	Collected date/time	Received date/time
Matt Vander Putten	11/09/22 13:55	11/10/22 09:00

DUPLICATE L1556298-12 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1960390	1	11/16/22 09:43	11/16/22 10:43	AS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1958664	1	11/15/22 02:17	11/15/22 02:17	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1959197	1	11/24/22 01:08	11/24/22 18:43	KMG	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jeff Carr
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	533000	J3	10000	1	11/16/2022 10:43	WG1960390

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	47600		379	1000	1	11/14/2022 20:37	WG1958664
Fluoride	400		64.0	150	1	11/14/2022 20:37	WG1958664
Sulfate	10700		594	5000	1	11/14/2022 20:37	WG1958664

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	818		20.0	200	1	11/24/2022 18:09	WG1959197
Calcium	47700		79.3	1000	1	11/24/2022 18:09	WG1959197

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1880000		50000	1	11/16/2022 10:43	WG1960390

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	46100		379	1000	1	11/14/2022 21:31	WG1958664
Fluoride	140	J	64.0	150	1	11/14/2022 21:31	WG1958664
Sulfate	1430000		5940	50000	10	11/16/2022 01:08	WG1959988

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	335		20.0	200	1	11/24/2022 18:12	WG1959197
Calcium	339000		79.3	1000	1	11/24/2022 18:12	WG1959197

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	543000	J3	10000	1	11/16/2022 10:43	WG1960390

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	6680		379	1000	1	11/14/2022 21:48	WG1958664
Fluoride	373		64.0	150	1	11/14/2022 21:48	WG1958664
Sulfate	68500		594	5000	1	11/14/2022 21:48	WG1958664

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	832		20.0	200	1	11/24/2022 18:15	WG1959197
Calcium	48300		79.3	1000	1	11/24/2022 18:15	WG1959197

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	703000		13300	1	11/16/2022 10:43	WG1960390

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	10200		379	1000	1	11/14/2022 22:06	WG1958664
Fluoride	297		64.0	150	1	11/14/2022 22:06	WG1958664
Sulfate	200000		594	5000	1	11/14/2022 22:06	WG1958664

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	255		20.0	200	1	11/24/2022 18:23	WG1959197
Calcium	97400		79.3	1000	1	11/24/2022 18:23	WG1959197

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	902000		20000	1	11/16/2022 10:43	WG1960390

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	169000		379	1000	1	11/14/2022 22:24	WG1958664
Fluoride	1410		64.0	150	1	11/14/2022 22:24	WG1958664
Sulfate	7350		594	5000	1	11/14/2022 22:24	WG1958664

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	1830		20.0	200	1	11/24/2022 18:26	WG1959197
Calcium	16800		79.3	1000	1	11/24/2022 18:26	WG1959197

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	571000		13300	1	11/16/2022 10:43	WG1960390

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	15800		379	1000	1	11/14/2022 22:42	WG1958664
Fluoride	1100		64.0	150	1	11/14/2022 22:42	WG1958664
Sulfate	26800		594	5000	1	11/14/2022 22:42	WG1958664

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	2270		20.0	200	1	11/24/2022 18:29	WG1959197
Calcium	22200		79.3	1000	1	11/24/2022 18:29	WG1959197

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	746000		20000	1	11/16/2022 11:32	WG1960383

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	94700		379	1000	1	11/14/2022 23:00	WG1958664
Fluoride	932		64.0	150	1	11/14/2022 23:00	WG1958664
Sulfate	4120	J	594	5000	1	11/14/2022 23:00	WG1958664

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	2090	O1	20.0	200	1	11/28/2022 17:44	WG1964958
Calcium	23200		79.3	1000	1	11/28/2022 17:44	WG1964958

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	667000		13300	1	11/16/2022 11:32	WG1960383

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	40600		379	1000	1	11/15/2022 00:11	WG1958664
Fluoride	936		64.0	150	1	11/15/2022 00:11	WG1958664
Sulfate	1070	J	594	5000	1	11/15/2022 00:11	WG1958664

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	2470		20.0	200	1	11/24/2022 18:32	WG1959197
Calcium	26900		79.3	1000	1	11/24/2022 18:32	WG1959197

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	564000		13300	1	11/16/2022 11:32	WG1960383

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	50800		379	1000	1	11/15/2022 01:05	WG1958664
Fluoride	641		64.0	150	1	11/15/2022 01:05	WG1958664
Sulfate	33100		594	5000	1	11/15/2022 01:05	WG1958664

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	2060		20.0	200	1	11/24/2022 18:34	WG1959197
Calcium	37900		79.3	1000	1	11/24/2022 18:34	WG1959197

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	521000		10000	1	11/16/2022 11:32	WG1960383

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	27900		379	1000	1	11/15/2022 01:23	WG1958664
Fluoride	489		64.0	150	1	11/15/2022 01:23	WG1958664
Sulfate	25000		594	5000	1	11/15/2022 01:23	WG1958664

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	1570		20.0	200	1	11/24/2022 18:37	WG1959197
Calcium	62700		79.3	1000	1	11/24/2022 18:37	WG1959197

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	619000		13300	1	11/16/2022 10:43	WG1960390

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	502000		3790	10000	10	11/15/2022 01:59	WG1958664
Fluoride	144	J	64.0	150	1	11/15/2022 01:41	WG1958664
Sulfate	723000		5940	50000	10	11/15/2022 01:59	WG1958664

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	515		20.0	200	1	11/24/2022 18:40	WG1959197
Calcium	440000		79.3	1000	1	11/24/2022 18:40	WG1959197

Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Dissolved Solids	762000		20000	1	11/16/2022 10:43	WG1960390

Wet Chemistry by Method 9056A

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Chloride	94600		379	1000	1	11/15/2022 02:17	WG1958664
Fluoride	938		64.0	150	1	11/15/2022 02:17	WG1958664
Sulfate	4290	J	594	5000	1	11/15/2022 02:17	WG1958664

Metals (ICP) by Method 6010D

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Boron	2200		20.0	200	1	11/24/2022 18:43	WG1959197
Calcium	23800		79.3	1000	1	11/24/2022 18:43	WG1959197

Cp Tc Ss Cn Sr Qc Gl Al Sc

Method Blank (MB)

(MB) R3863459-1 11/16/22 11:32

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Dissolved Solids	U	J	10000	10000

L1556386-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1556386-04 11/16/22 11:32 • (DUP) R3863459-3 11/16/22 11:32

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	426000	450000	1	5.48	J3	5

L1556386-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1556386-05 11/16/22 11:32 • (DUP) R3863459-4 11/16/22 11:32

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	569000	587000	1	3.11		5

Laboratory Control Sample (LCS)

(LCS) R3863459-2 11/16/22 11:32

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800000	8520000	96.8	77.3-123	

Method Blank (MB)

(MB) R3863782-1 11/16/22 10:43

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Dissolved Solids	U		10000	10000

L1556298-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1556298-01 11/16/22 10:43 • (DUP) R3863782-3 11/16/22 10:43

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	533000	566000	1	6.01	J3	5

L1556298-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1556298-03 11/16/22 10:43 • (DUP) R3863782-4 11/16/22 10:43

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	543000	575000	1	5.72	J3	5

Laboratory Control Sample (LCS)

(LCS) R3863782-2 11/16/22 10:43

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800000	8550000	97.2	77.3-123	

Method Blank (MB)

(MB) R3861086-1 11/14/22 11:49

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	546	J	379	1000
Fluoride	U		64.0	150
Sulfate	U		594	5000

L1555864-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1555864-04 11/14/22 16:27 • (DUP) R3861086-3 11/14/22 17:02

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	17200	17300	10	0.104		15
Fluoride	1580	1560	10	1.51		15

L1556298-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1556298-07 11/14/22 23:00 • (DUP) R3861086-6 11/14/22 23:18

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	94700	94700	1	0.0259		15
Fluoride	932	933	1	0.182		15
Sulfate	4120	4090	1	0.904	J	15

Laboratory Control Sample (LCS)

(LCS) R3861086-2 11/14/22 12:07

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	41100	103	80.0-120	
Fluoride	8000	8610	108	80.0-120	
Sulfate	40000	41600	104	80.0-120	

L1555864-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1555864-04 11/14/22 16:27 • (MS) R3861086-4 11/14/22 17:56 • (MSD) R3861086-5 11/14/22 18:14

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	17200	59500	58900	84.5	83.3	10	80.0-120			1.01	15
Fluoride	5000	1580	5480	5440	77.9	77.2	10	80.0-120	J6	J6	0.683	15

L1556298-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1556298-07 11/14/22 23:00 • (MS) R3861086-7 11/14/22 23:36 • (MSD) R3861086-8 11/14/22 23:54

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Chloride	50000	94700	142000	142000	94.2	95.3	1	80.0-120			0.377	15
Fluoride	5000	932	5900	5970	99.5	101	1	80.0-120			1.18	15
Sulfate	50000	4120	53200	53700	98.1	99.2	1	80.0-120			1.02	15

Method Blank (MB)

(MB) R3861713-1 11/15/22 23:39

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Sulfate	U		594	5000

L1556283-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1556283-01 11/16/22 00:23 • (DUP) R3861713-3 11/16/22 00:38

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Sulfate	161000	161000	1	0.0189		15

Laboratory Control Sample (LCS)

(LCS) R3861713-2 11/15/22 23:53

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
Sulfate	40000	42100	105	80.0-120	

L1556283-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1556283-01 11/16/22 00:23 • (MS) R3861713-4 11/16/22 00:53

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	ug/l	ug/l	ug/l	%		%	
Sulfate	50000	161000	203000	83.5	1	80.0-120	E

Method Blank (MB)

(MB) R3865048-1 11/25/22 10:23

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Boron	U		20.0	200
Calcium	U		79.3	1000

Laboratory Control Sample (LCS)

(LCS) R3865048-2 11/25/22 10:25

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1000	970	97.0	80.0-120	
Calcium	10000	9760	97.6	80.0-120	

L1556231-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1556231-01 11/25/22 10:28 • (MS) R3865048-4 11/25/22 10:34 • (MSD) R3865048-5 11/25/22 10:36

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1000	50.0	1020	1010	97.4	96.0	1	75.0-125			1.36	20
Calcium	10000	19900	29100	29000	92.5	90.7	1	75.0-125			0.607	20

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R3865806-1 11/28/22 17:39

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Boron	U		20.0	200
Calcium	U		79.3	1000

Laboratory Control Sample (LCS)

(LCS) R3865806-2 11/28/22 17:41

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1000	956	95.6	80.0-120	
Calcium	10000	9620	96.2	80.0-120	

L1556298-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1556298-07 11/28/22 17:44 • (MS) R3865806-4 11/28/22 17:50 • (MSD) R3865806-5 11/28/22 17:52

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1000	2090	3000	3020	91.4	92.6	1	75.0-125			0.403	20
Calcium	10000	23200	32200	32300	89.4	90.6	1	75.0-125			0.383	20

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.

Pace Analytical National   12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
SCS Engineers - KS
8575 West 110th Street
Suite 100
Overland Park, KS 66210

Billing Information:
Accounts Payable
8575 W. 110th Street
Suite 100
Overland Park, KS 66210

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Pace PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
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

Report to: **Jason Franks**
Email To: jfranks@scsengineers.com;jay.martin@evergy.c

Project Description: Evergy La Cygne Gen Station GW 2022-23
City/State Collected: LaCyghe KS
Please Circle: PT MT CT ET

Phone: 913-681-0030
Client Project # 27217233.22-A
Lab Project # AQUAOPKS-LACYGNE

SDG # 1556298
E084

Collected by (print): Matt VanderPutten
Site/Facility ID #
P.O. #

Acctnum: AQUAOPKS
Template: T157983
Prelogin: P958824
PM: 206 - Jeff Carr
PB:
Shipped Via: FedEX Ground

Collected by (signature):
Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #
Date Results Needed: Std

Immediately Packed on Ice N ___ Y X

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Anions (Cld, F, SO4) 125mlHDPE-NoPres	B, Ca - 6010 250mlHDPE-HNO3 (C2)	TDS 250mlHDPE-NoPres							Remarks	Sample # (lab only)
MW-10	Grab	GW	NA	11/09/22	1505	3	X	X	X								-01
MW-13		GW			1255	3	X	X	X								-02
MW-14R		GW			1230	3	X	X	X								-03
MW-15		GW			1050	3	X	X	X								-04
MW-601		GW			1205	3	X	X	X								-05
MW-602		GW			1405	3	X	X	X								-06
MW-801		GW			1355	3	X	X	X								-07
MW-802		GW			1315	3	X	X	X								-08
MW-803		GW			1235	3	X	X	X								-09
MW-804		GW			~~1200~~ 1130	3	X	X	X								-10

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other________

Remarks:

pH ______ Temp ______
Flow ______ Other ______

Samples returned via:
__ UPS __ FedEx __ Courier ______

Tracking # 6694 5455 8615

Sample Receipt Checklist
COC Seal Present/Intact: NP __Y __N
COC Signed/Accurate: Y __N
Bottles arrive intact: Y __N
Correct bottles used: Y __N
Sufficient volume sent: Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: Y __N
RAD Screen <0.5 mR/hr: Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeOH TBR
Matt VanderPutten	11/9/22	1700		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: MMK 2 1.5 °C Bottles Received: 39
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Caleb Tag	Date: 11/10/22 Time: 09:00

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Company Name/Address:	Billing Information:	Pres Chk
SCS Engineers - KS 8575 West 110th Street Suite 100 Overland Park, KS 66210	Accounts Payable 8575 W. 110th Street Suite 100 Overland Park, KS 66210	
Report to: Jason Franks	Email To: jfranks@scsengineers.com;jay.martin@evergy.c	

Project Description:	City/State Collected:	Please Circle:
Evergy La Cygne Gen Station GW 2022-23	La Cygne KS	PT MT CT ET

Phone: 913-681-0030	Client Project # 27217233.22-A	Lab Project # AQUAOPKS-LACYGNE
Collected by (print): Matt VanderPutten	Site/Facility ID #	P.O. #
Collected by (signature): Matt VanderPutten	Rush? (Lab MUST Be Notified) ___ Same Day ___ Five Day ___ Next Day ___ 5 Day (Rad Only) ___ Two Day ___ 10 Day (Rad Only) ___ Three Day	Quote #
Immediately Packed on Ice N ___ Y X		Date Results Needed: Std

Analysis / Container / Preservative: 42

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Anions (Cld, F, SO4) 125mlHDPE-NoPres	B, Ca - 6010 250mlHDPE-HNO3	TDS 250mlHDPE-NoPres						Remarks	Sample # (lab only)
MW-805	Grab	GW	NA	11/09/22	1200	3	X	X	X							-11
DUPLICATE L	Grab	GW	NA	11/09/22	1355	3	X	X	X							-12
MD/MSD	Grab	GW	NA	11/09/22	1355	3	X	X	X							-07

Chain of Custody Page 2 of 2

Pace®
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MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
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

SDG # 1556298

Table #

Acctnum: AQUAOPKS
Template: T157983
Prelogin: P958824
PM: 206 - Jeff Carr
PB:
Shipped Via: FedEX Ground

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other________

Remarks:

pH ______ Temp ______
Flow ______ Other ______

Samples returned via:
__ UPS __ FedEx __ Courier ______

Tracking # 6094 5455 8015

Sample Receipt Checklist
COC Seal Present/Intact: ✓NP _Y _N
COC Signed/Accurate: ✓Y _N
Bottles arrive intact: ✓Y _N
Correct bottles used: ✓Y _N
Sufficient volume sent: ✓Y _N
If Applicable
VOA Zero Headspace: _Y _N
Preservation Correct/Checked: ✓Y _N
RAD Screen <0.5 mR/hr: ✓Y _N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Matt VanderPutten	11/09/22	1700		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: MMA2 1.5 °C Bottles Received: 39
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Caleb Tapp	Date: 11/10/22 Time: 09:00

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

APPENDIX E

STATISTICAL ANALYSES

E.1 Fall 2021 Semiannual Detection Monitoring Statistical Analyses

E.2 Spring 2022 Semiannual Detection Monitoring Statistical Analyses

Appendix E.1

Fall 2021 Semiannual Detection Monitoring Statistical Analyses

MEMORANDUM

April 1, 2022

JOHN R. ROCKHOLD
LICENSED
29
4-1-22
KANSAS
PROFESSIONAL GEOLOGIST

To: La Cygne Generating Station
25166 East 2200 Road
La Cygne, Kansas 66040
Evergy Metro, Inc.

From: SCS Engineers

RE: Determination of Statistically Significant Increases –
CCR Landfill and Lower AQC Impoundment
Fall 2021 Semiannual Detection Monitoring 40 CFR 257.94

Statistical analysis of monitoring data from the groundwater monitoring system for the CCR Landfill and Lower AQC Impoundment at the La Cygne Generating Station has been completed in substantial compliance with the “Statistical Method Certification by A Qualified Professional Engineer” dated October 12, 2017. Detection monitoring groundwater samples were collected on November 18, 2021. Review and validation of the results from the November 2021 Detection Monitoring Event was completed on January 5, 2022, which constitutes completion and finalization of detection monitoring laboratory analyses. A statistical analysis was then conducted to determine whether there was a statistically significant increase (SSI) over background values for each constituent listed in Appendix III to Part 257-Constituents for Detection Monitoring. Two rounds of verification sampling were conducted for certain constituents on January 27, 2022 and March 3, 2022.

The completed statistical evaluation identified one Appendix III constituent above its prediction limit established for monitoring well MW-803.

Monitoring Well Constituent	*UPL	Observation November 18, 2021	1st Verification January 27, 2022	2nd Verification March 3, 2022
MW-803				
Sulfate	26.76	27.2	30.0	27.4

*UPL – Upper Prediction Limit

Determination: A statistical evaluation was completed for all Appendix III detection monitoring constituents in accordance with the certified statistical method. The statistical evaluation identified an SSI above the background prediction limit for sulfate at MW-803.

Attached to this memorandum are the following backup information:

Attachment 1: Sanitas™ Output:

Statistical evaluation output from Sanitas™ for the prediction limit analysis. This includes prediction limit plots, prediction limit background data, detection sample results, 1st verification re-sample results (when applicable), 2nd verification re-sample results (when applicable), extra sample results for pH because pH is collected as part of the sampling procedure, and a Prediction Limit summary table. Output documentation includes the analytical data used for the statistical analyses.

Attachment 2: Sanitas™ Configuration Settings:

Screen shots of the applicable Sanitas™ configuration settings for the statistical prediction limit analysis. This includes data configuration, output configuration, prediction limit configuration and other tests configuration.

Revision Number	**Revision Date**	**Attachment Revised**	**Summary of Revisions**

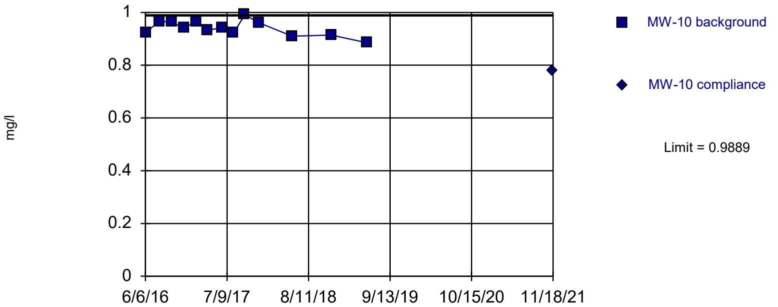
ATTACHMENT 1

Sanitas™ Output

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.9397, Std. Dev.=0.02926, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9728, critical = 0.814. Kappa = 1.682 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 3/31/2022 2:08 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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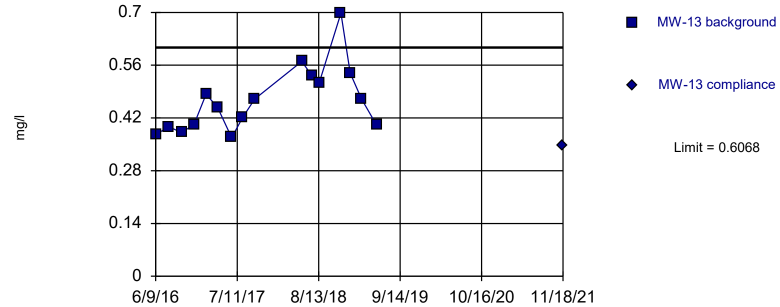
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.467, Std. Dev.=0.08842, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8992, critical = 0.844. Kappa = 1.581 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 3/31/2022 2:08 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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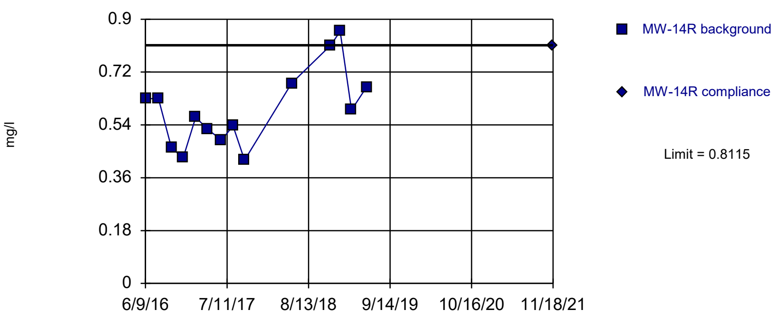
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.5928, Std. Dev.=0.1327, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9446, critical = 0.825. Kappa = 1.648 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 3/31/2022 2:08 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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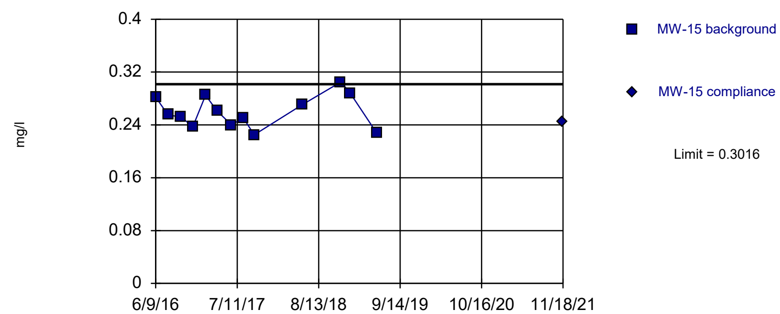
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.2599, Std. Dev.=0.02478, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.961, critical = 0.814. Kappa = 1.682 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 3/31/2022 2:08 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: BORON   Analysis Run 3/31/2022 2:13 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-10	MW-10	MW-13	MW-13	MW-14R	MW-14R	MW-15	MW-15
6/6/2016	0.923							
6/9/2016			0.375		0.629		0.282	
8/9/2016							0.255	
8/11/2016	0.966		0.397		0.63			
10/12/2016	0.964						0.252	
10/13/2016			0.381		0.463			
12/7/2016							0.237	
12/9/2016	0.94				0.427			
12/13/2016			0.403					
2/7/2017							0.285	
2/8/2017	0.966							
2/9/2017					0.566			
2/10/2017			0.483					
4/5/2017							0.261	
4/6/2017	0.933		0.449					
4/7/2017					0.526			
6/14/2017							0.24	
6/15/2017	0.942		0.368		0.488			
8/8/2017			0.422					
8/10/2017	0.921				0.537		0.251	
10/3/2017							0.225	
10/4/2017	0.991							
10/5/2017			0.47		0.42			
12/12/2017	0.961							
5/23/2018	0.91		0.57		0.682		0.27	
7/11/2018			0.533					
8/16/2018			0.513					
11/30/2018	0.914		0.698		0.812		0.305	
1/14/2019			0.539		0.859		0.288	
3/11/2019			0.47		0.591			
5/23/2019	0.885		0.401		0.669		0.228	
11/18/2021		0.781		0.348		0.81		0.245

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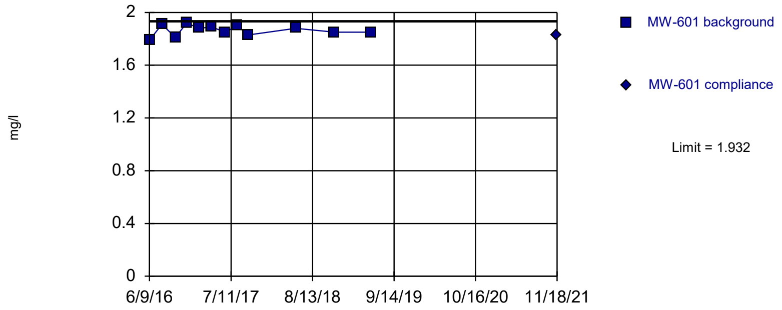
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.863, Std. Dev.=0.0403, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9586, critical = 0.805. Kappa = 1.716 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 3/31/2022 2:08 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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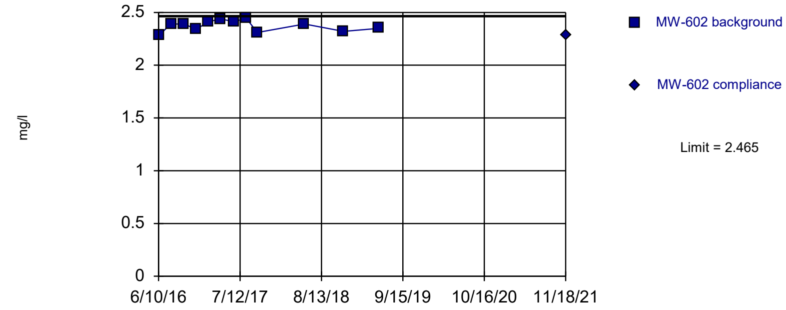
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2.373, Std. Dev.=0.05314, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9546, critical = 0.805. Kappa = 1.716 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 3/31/2022 2:08 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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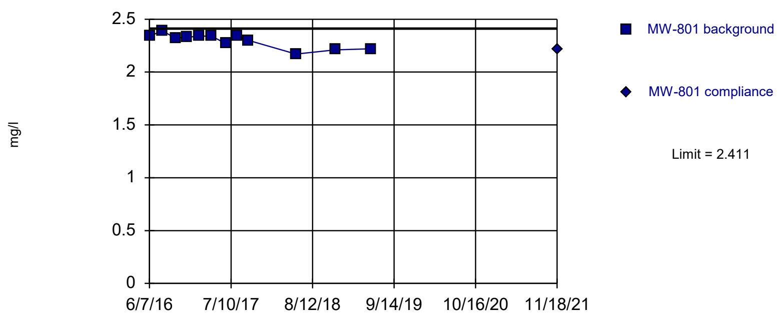
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2.298, Std. Dev.=0.06608, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8916, critical = 0.805. Kappa = 1.716 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 3/31/2022 2:08 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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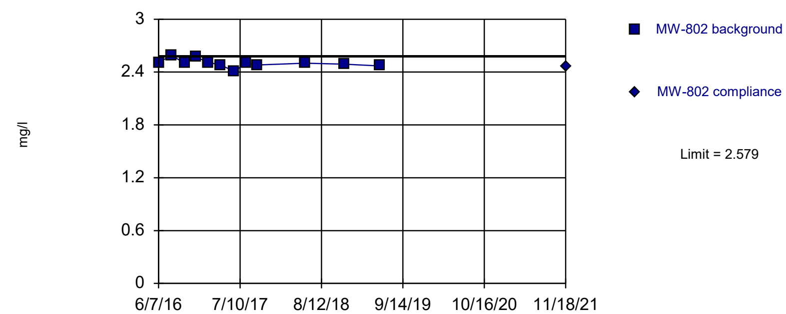
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2.501, Std. Dev.=0.04582, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9045, critical = 0.805. Kappa = 1.716 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 3/31/2022 2:08 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: BORON   Analysis Run 3/31/2022 2:13 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-601	MW-601	MW-602	MW-602	MW-801	MW-801	MW-802	MW-802
6/7/2016					2.34		2.51	
6/9/2016	1.79							
6/10/2016			2.28					
8/9/2016	1.91		2.39		2.39			
8/10/2016							2.59	
10/11/2016					2.32		2.5	
10/13/2016	1.81		2.39					
12/6/2016					2.33		2.57	
12/7/2016	1.92							
12/9/2016			2.34					
2/7/2017					2.34		2.51	
2/8/2017	1.88		2.41					
4/4/2017							2.48	
4/6/2017	1.89				2.34			
4/7/2017			2.44					
6/13/2017							2.41	
6/14/2017					2.27			
6/15/2017	1.85		2.41					
8/7/2017							2.5	
8/9/2017	1.9				2.34			
8/10/2017			2.45					
10/4/2017					2.3		2.48	
10/5/2017			2.31					
10/6/2017	1.83							
5/23/2018	1.88		2.39		2.17		2.5	
11/30/2018	1.85		2.32		2.21		2.49	
5/23/2019	1.85		2.35		2.22		2.47	
11/18/2021		1.83		2.29		2.21		2.46

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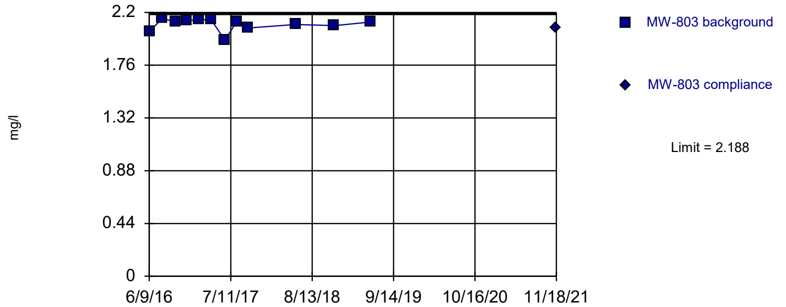
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2.099, Std. Dev.=0.0516, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8353, critical = 0.805. Kappa = 1.716 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 3/31/2022 2:08 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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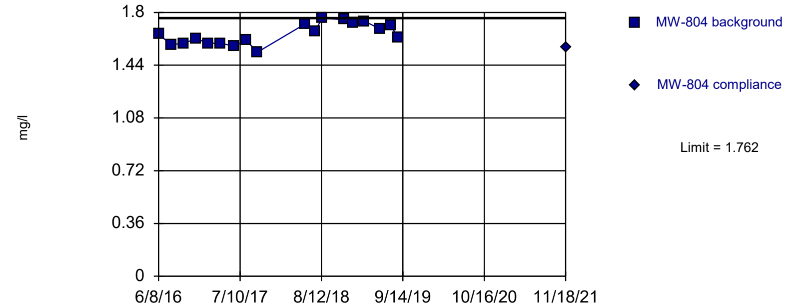
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.652, Std. Dev.=0.07131, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9373, critical = 0.858. Kappa = 1.541 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 3/31/2022 2:08 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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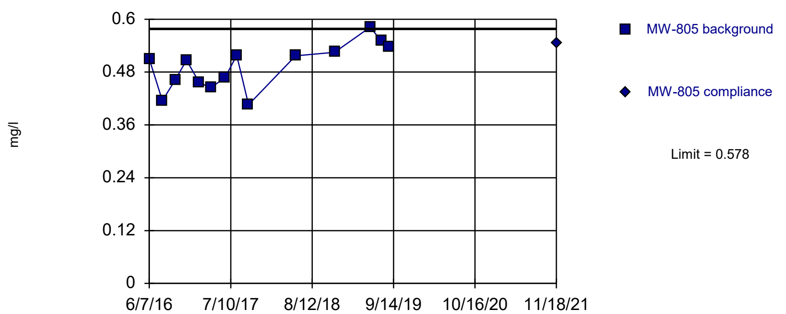
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.4926, Std. Dev.=0.05176, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9627, critical = 0.825. Kappa = 1.648 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 3/31/2022 2:08 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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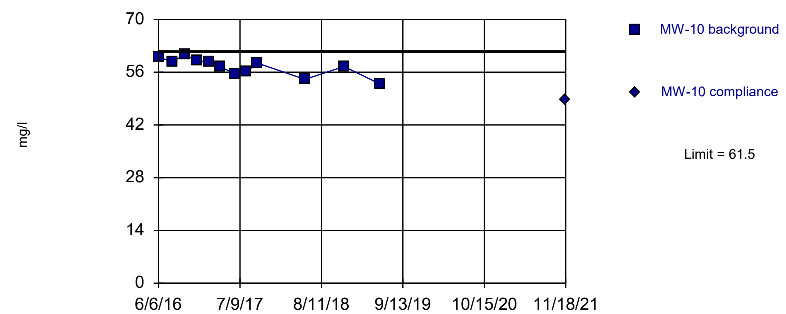
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=57.43, Std. Dev.=2.371, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9496, critical = 0.805. Kappa = 1.716 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 3/31/2022 2:08 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: BORON, CALCIUM Analysis Run 3/31/2022 2:13 PM View: LF LAQC III

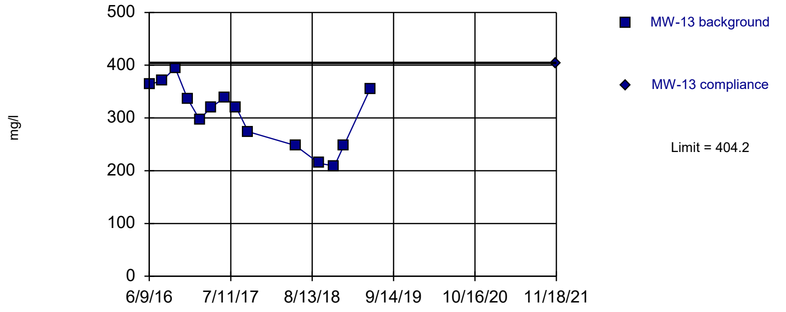
LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-803	MW-803	MW-804	MW-804	MW-805	MW-805	MW-10	MW-10
6/6/2016							60.1	
6/7/2016					0.51			
6/8/2016			1.65					
6/9/2016	2.04							
8/10/2016			1.58		0.415			
8/11/2016							58.7	
8/12/2016	2.15							
10/11/2016			1.59		0.462			
10/12/2016							60.7	
10/13/2016	2.12							
12/6/2016	2.13				0.507			
12/7/2016			1.62					
12/9/2016							59	
2/6/2017					0.456			
2/7/2017			1.59					
2/8/2017	2.14						58.8	
4/4/2017			1.59		0.444			
4/6/2017							57.4	
4/7/2017	2.14							
6/13/2017	1.97		1.57		0.468			
6/15/2017							55.5	
8/8/2017			1.61		0.518			
8/9/2017	2.12							
8/10/2017							56.1	
10/4/2017	2.07						58.4	
10/5/2017			1.53		0.406			
5/23/2018	2.1		1.72		0.517		54.1	
7/11/2018			1.67					
8/16/2018			1.76					
11/30/2018	2.09		1.75		0.525		57.5	
1/14/2019			1.73					
3/11/2019			1.74					
5/23/2019	2.12		1.69		0.582		52.9	
7/17/2019			1.71		0.55			
8/22/2019			1.63		0.537			
11/18/2021		2.07		1.56		0.546		48.6

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=306.2, Std. Dev.=59.47, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9456, critical = 0.825. Kappa = 1.648 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 3/31/2022 2:08 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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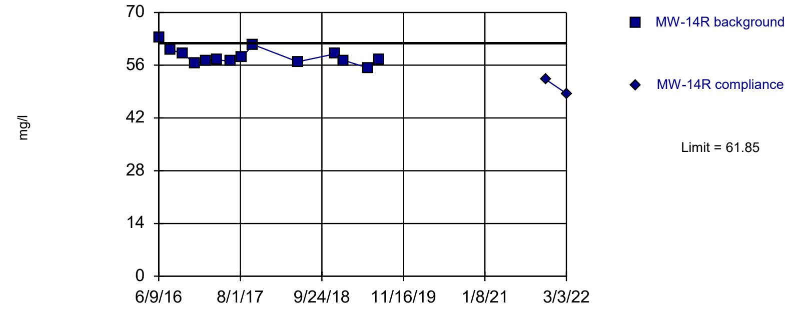
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=58.29, Std. Dev.=2.158, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.906, critical = 0.825. Kappa = 1.648 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 3/31/2022 2:08 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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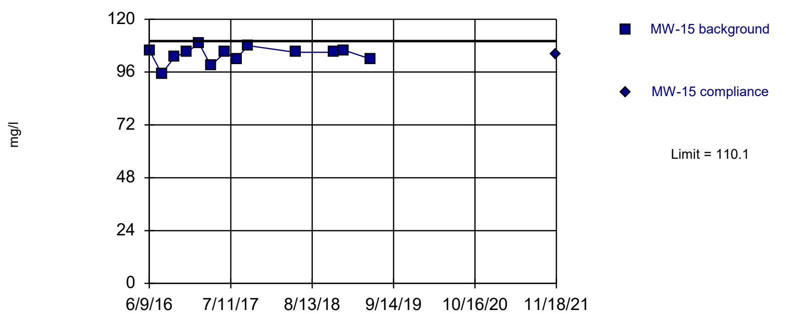
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=103.9, Std. Dev.=3.71, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9143, critical = 0.814. Kappa = 1.682 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 3/31/2022 2:08 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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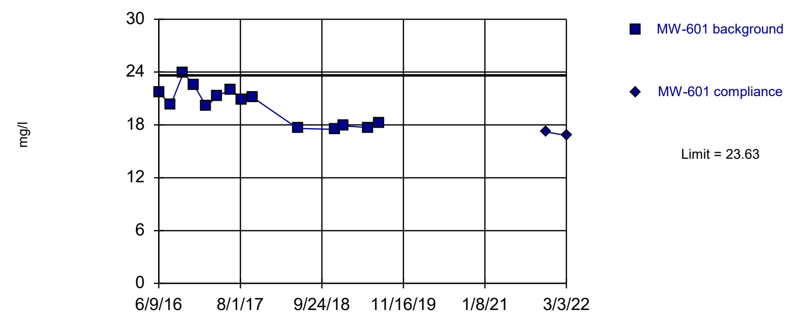
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=20.19, Std. Dev.=2.086, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9162, critical = 0.825. Kappa = 1.648 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 3/31/2022 2:08 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: CALCIUM Analysis Run 3/31/2022 2:13 PM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-13	MW-13	MW-14R	MW-14R	MW-15	MW-15	MW-601	MW-601
6/9/2016	363		63.4		106		21.7	
8/9/2016					95.2		20.3	
8/11/2016	371		60					
10/12/2016					103			
10/13/2016	395		59.1				23.9	
12/7/2016					105		22.5	
12/9/2016			56.4					
12/13/2016	336							
2/7/2017					109			
2/8/2017							20.1	
2/9/2017			57.3					
2/10/2017	297							
4/5/2017					98.9			
4/6/2017	320						21.3	
4/7/2017			57.4					
6/14/2017					105			
6/15/2017	339		57				22	
8/8/2017	319							
8/9/2017							20.9	
8/10/2017			58		102			
10/3/2017					108			
10/5/2017	274		61.5					
10/6/2017							21.1	
5/23/2018	248		56.9		105		17.6	
9/17/2018	214							
11/30/2018	209		59		105		17.5	
1/14/2019	247		57.3		106		17.9	
5/23/2019	355		55.2		102		17.7	
7/17/2019			57.6				18.2	
11/18/2021		403		52.2		104		17.2
3/3/2022				48.5 Extra Sample				16.8 Extra Sample

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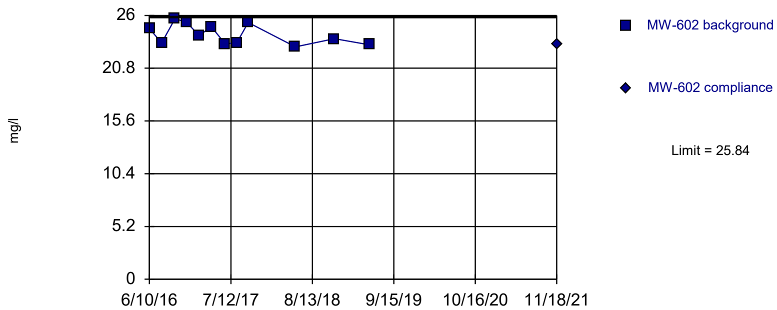
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=24.12, Std. Dev.=1.006, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8906, critical = 0.805. Kappa = 1.716 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 3/31/2022 2:09 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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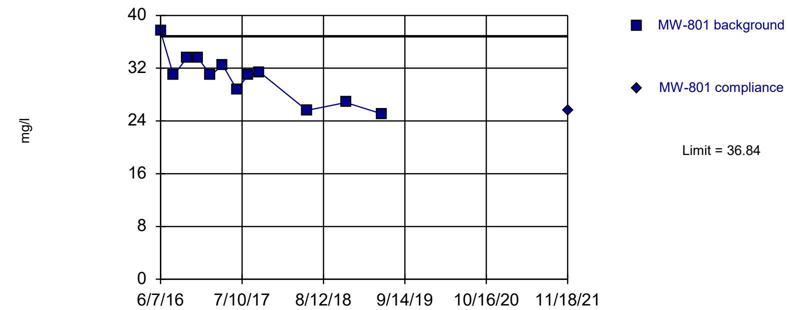
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=30.63, Std. Dev.=3.616, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9531, critical = 0.805. Kappa = 1.716 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 3/31/2022 2:09 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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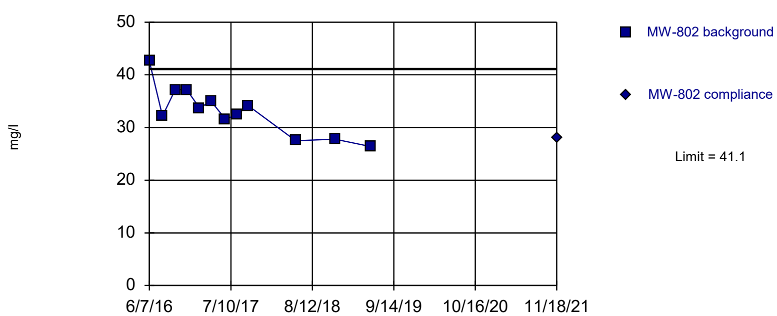
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=33.14, Std. Dev.=4.639, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9575, critical = 0.805. Kappa = 1.716 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 3/31/2022 2:09 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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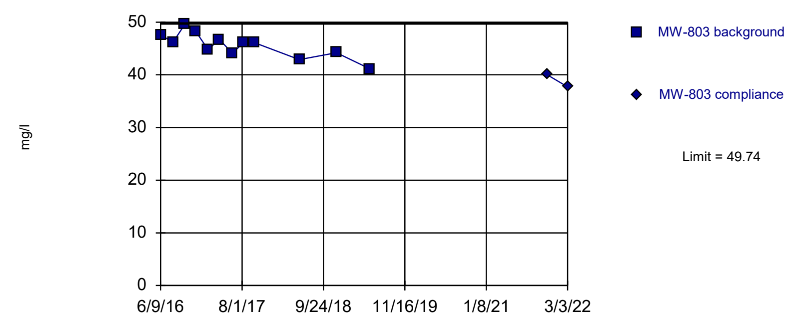
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=45.65, Std. Dev.=2.384, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9857, critical = 0.805. Kappa = 1.716 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 3/31/2022 2:09 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: CALCIUM   Analysis Run 3/31/2022 2:13 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-602	MW-602	MW-801	MW-801	MW-802	MW-802	MW-803	MW-803
6/7/2016			37.6		42.6			
6/9/2016							47.6	
6/10/2016	24.7							
8/9/2016	23.3		30.9					
8/10/2016					32.2			
8/12/2016							46.2	
10/11/2016			33.5		37.2			
10/13/2016	25.7						49.7	
12/6/2016			33.6		37.2		48.3	
12/9/2016	25.3							
2/7/2017			30.9		33.7			
2/8/2017	24						44.8	
4/4/2017					35			
4/6/2017			32.5					
4/7/2017	24.9						46.7	
6/13/2017					31.6		44.1	
6/14/2017			28.8					
6/15/2017	23.2							
8/7/2017					32.4			
8/9/2017			30.9				46.1	
8/10/2017	23.3							
10/4/2017			31.4		34.1		46.1	
10/5/2017	25.3							
5/23/2018	22.9		25.6		27.5		42.9	
11/30/2018	23.7		26.8		27.8		44.2	
5/23/2019	23.1		25.1		26.4		41.1	
11/18/2021		23.2		25.6		28		40
3/3/2022								37.7 Extra Sample

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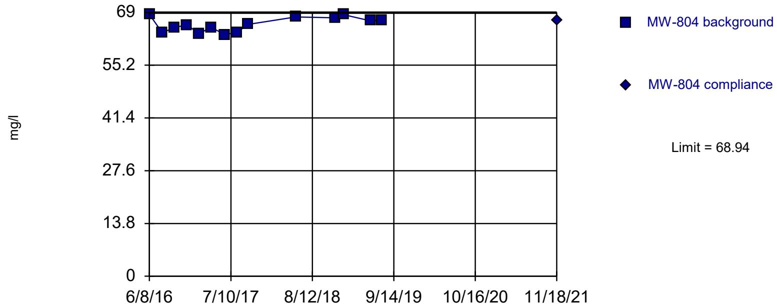
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=65.86, Std. Dev.=1.863, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9264, critical = 0.825. Kappa = 1.648 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 3/31/2022 2:09 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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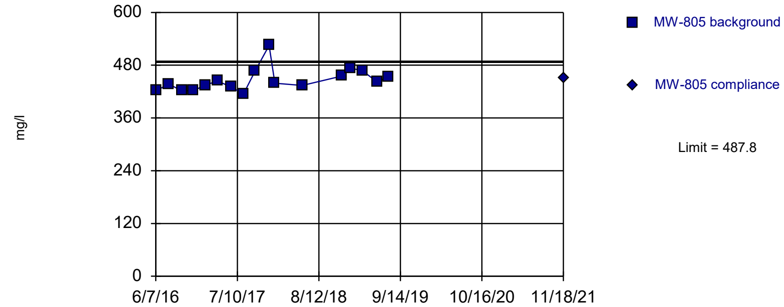
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=446, Std. Dev.=26.75, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8599, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 3/31/2022 2:09 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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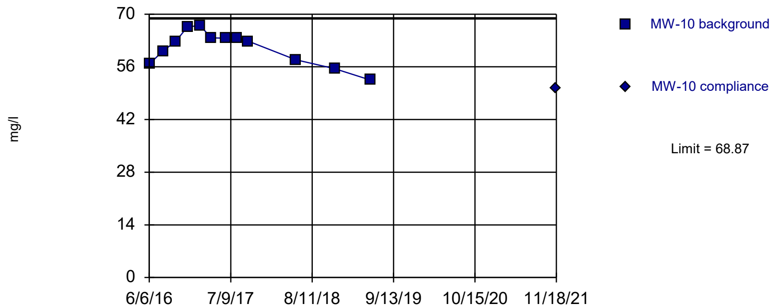
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=61.08, Std. Dev.=4.538, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9322, critical = 0.805. Kappa = 1.716 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 3/31/2022 2:09 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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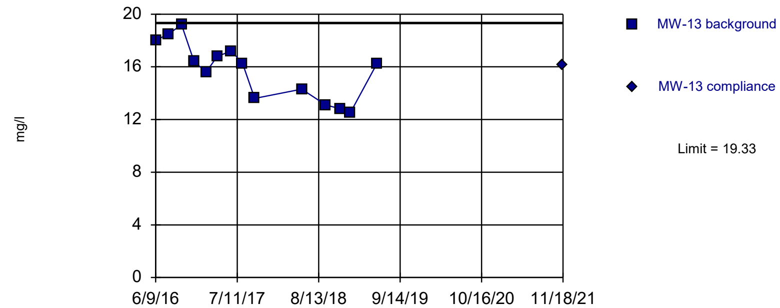
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=15.74, Std. Dev.=2.177, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9456, critical = 0.825. Kappa = 1.648 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 3/31/2022 2:09 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: CALCIUM, CHLORIDE   Analysis Run 3/31/2022 2:13 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-804	MW-804	MW-805	MW-805	MW-10	MW-10	MW-13	MW-13
6/6/2016					56.7			
6/7/2016			422					
6/8/2016	68.5							
6/9/2016							18	
8/10/2016	63.7		437					
8/11/2016					60.2		18.5	
10/11/2016	65.1		422					
10/12/2016					62.7			
10/13/2016							19.2	
12/6/2016			422					
12/7/2016	65.7							
12/9/2016					66.6			
12/13/2016							16.4	
2/6/2017			435					
2/7/2017	63.5							
2/8/2017					67			
2/10/2017							15.6	
4/4/2017	65.1		444					
4/6/2017					63.7		16.8	
6/13/2017	63.2		430					
6/15/2017					63.6		17.2	
8/8/2017	63.8		414				16.2	
8/10/2017					63.8			
10/4/2017					62.8			
10/5/2017	65.9		467				13.6	
12/12/2017			525					
1/9/2018			439					
5/23/2018	67.8		434		57.9		14.3	
9/17/2018							13.1	
11/30/2018	67.6		455		55.5		12.8	
1/14/2019	68.4		473				12.5	
3/11/2019			468					
5/23/2019	66.8		442		52.5		16.2	
7/17/2019	67		453					
11/18/2021		66.8		452		50.3		16.1

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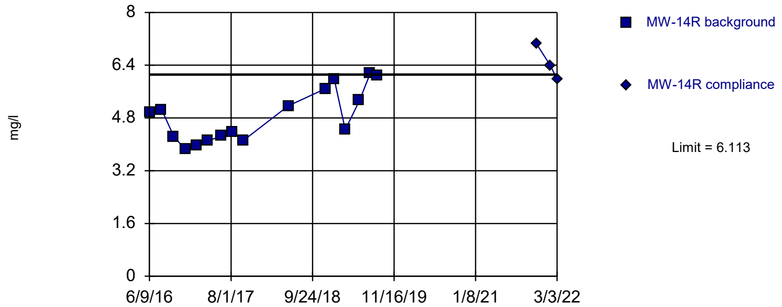
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.858, Std. Dev.=0.7941, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8996, critical = 0.844. Kappa = 1.581 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 3/31/2022 2:09 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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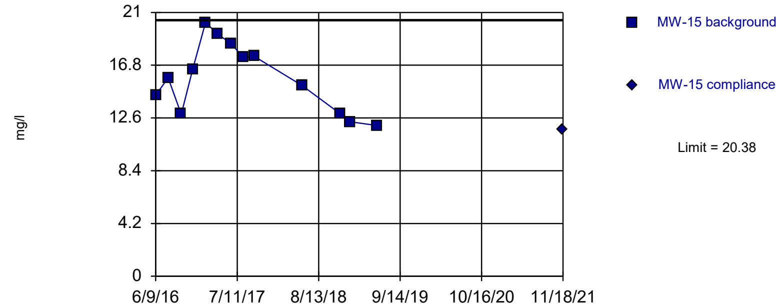
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=15.76, Std. Dev.=2.748, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9454, critical = 0.814. Kappa = 1.682 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 3/31/2022 2:09 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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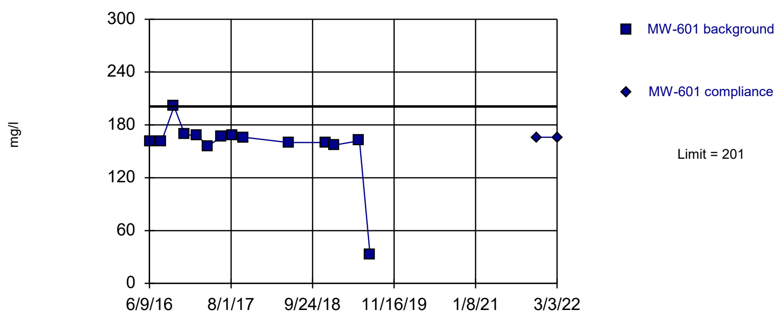
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 14 background values. Well-constituent pair annual alpha = 0.003197. Individual comparison alpha = 0.0016 (1 of 3).

Constituent: CHLORIDE Analysis Run 3/31/2022 2:09 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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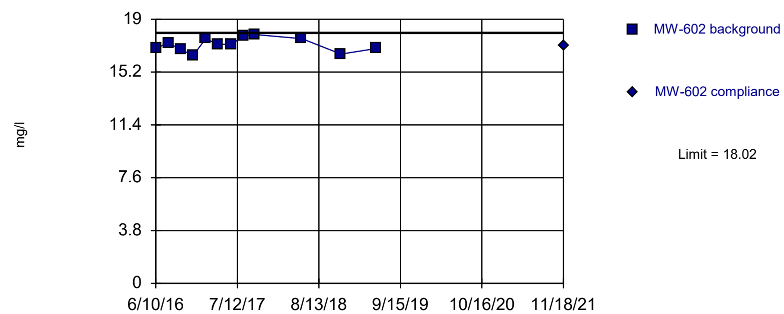
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=17.18, Std. Dev.=0.4901, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9557, critical = 0.805. Kappa = 1.716 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 3/31/2022 2:09 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: CHLORIDE Analysis Run 3/31/2022 2:13 PM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-14R	MW-14R	MW-15	MW-15	MW-601	MW-601	MW-602	MW-602
6/9/2016	4.95		14.4		161			
6/10/2016							16.9	
8/9/2016			15.8		161		17.3	
8/11/2016	5.05							
10/12/2016			12.9					
10/13/2016	4.22				201		16.8	
12/7/2016			16.5		169			
12/9/2016	3.86						16.4	
2/7/2017			20.2					
2/8/2017					168		17.6	
2/9/2017	3.98							
4/5/2017			19.3					
4/6/2017					156			
4/7/2017	4.11						17.2	
6/14/2017			18.5					
6/15/2017	4.25				167		17.2	
8/9/2017					168			
8/10/2017	4.38		17.4				17.8	
10/3/2017			17.5					
10/5/2017	4.12						17.9	
10/6/2017					166			
5/23/2018	5.17		15.2		160		17.6	
11/30/2018	5.69		12.9		160		16.5	
1/14/2019	5.96		12.3		157			
3/11/2019	4.44							
5/23/2019	5.33		12		162		16.9	
7/17/2019	6.14				32.3			
8/23/2019	6.08							
11/18/2021		7.04		11.7		166		17.1
1/27/2022		6.39 1st Verification						
3/3/2022		5.97 2nd Verification				166 Extra Sample		

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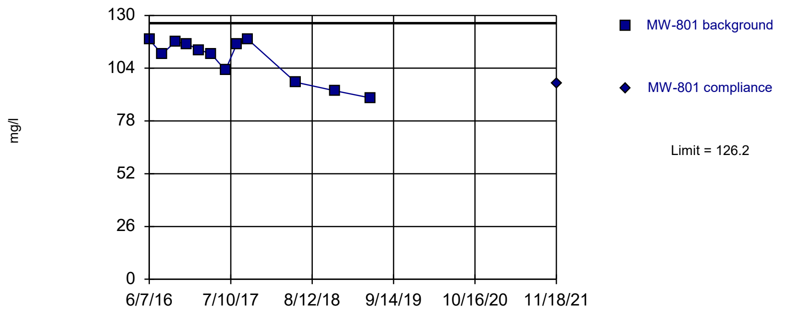
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=108.5, Std. Dev.=10.3, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8377, critical = 0.805. Kappa = 1.716 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 3/31/2022 2:09 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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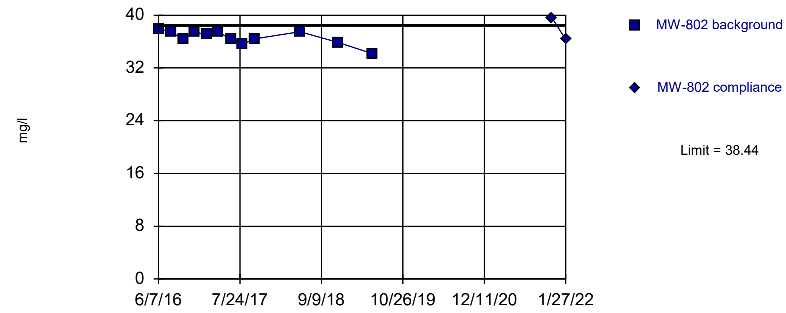
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=36.63, Std. Dev.=1.055, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9005, critical = 0.805. Kappa = 1.716 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 3/31/2022 2:09 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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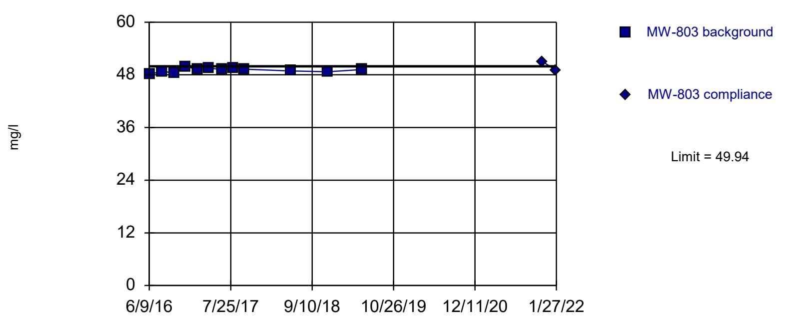
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=49.07, Std. Dev.=0.5069, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9692, critical = 0.805. Kappa = 1.716 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 3/31/2022 2:09 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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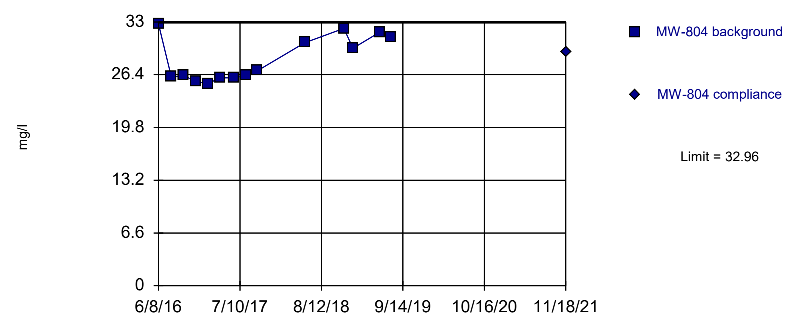
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=28.31, Std. Dev.=2.821, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.832, critical = 0.825. Kappa = 1.648 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 3/31/2022 2:09 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: CHLORIDE Analysis Run 3/31/2022 2:13 PM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-801	MW-801	MW-802	MW-802	MW-803	MW-803	MW-804	MW-804
6/7/2016	118		37.9					
6/8/2016							32.8	
6/9/2016					48.1			
8/9/2016	111							
8/10/2016			37.5				26.1	
8/12/2016					48.8			
10/11/2016	117		36.3				26.3	
10/13/2016					48.4			
12/6/2016	116		37.4		49.9			
12/7/2016							25.5	
2/7/2017	113		37.1				25.3	
2/8/2017					49.3			
4/4/2017			37.4				26	
4/6/2017	111							
4/7/2017					49.5			
6/13/2017			36.4		49.2		26	
6/14/2017	103							
8/7/2017			35.6					
8/8/2017							26.3	
8/9/2017	116				49.5			
10/4/2017	118		36.4		49.3			
10/5/2017							26.9	
5/23/2018	97.1		37.5		48.9		30.4	
11/30/2018	92.9		35.9		48.7		32.2	
1/14/2019							29.7	
5/23/2019	89.4		34.2		49.2		31.7	
7/17/2019							31.1	
11/18/2021		96.2		39.6		51		29.3
1/27/2022				36.3		49 1st Verification		
3/3/2022						50.9 Extra Sample		

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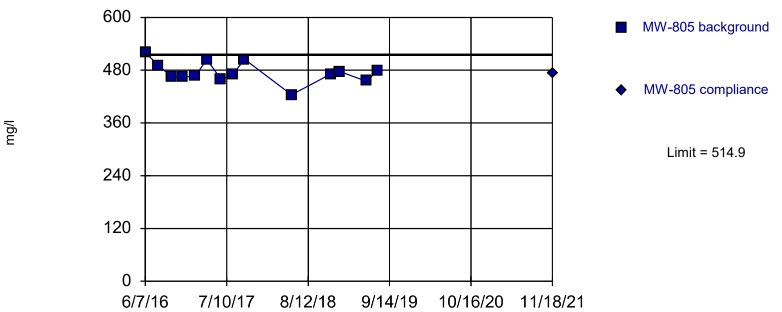
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=475.1, Std. Dev.=24.18, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9547, critical = 0.825. Kappa = 1.648 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 3/31/2022 2:09 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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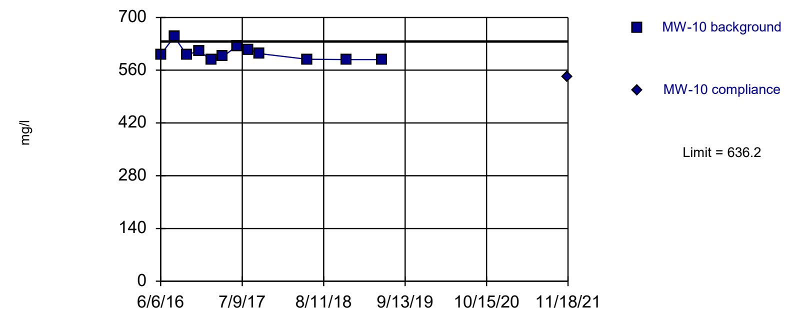
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=604.5, Std. Dev.=18.5, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8634, critical = 0.805. Kappa = 1.716 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: DISSOLVED SOLIDS Analysis Run 3/31/2022 2:09 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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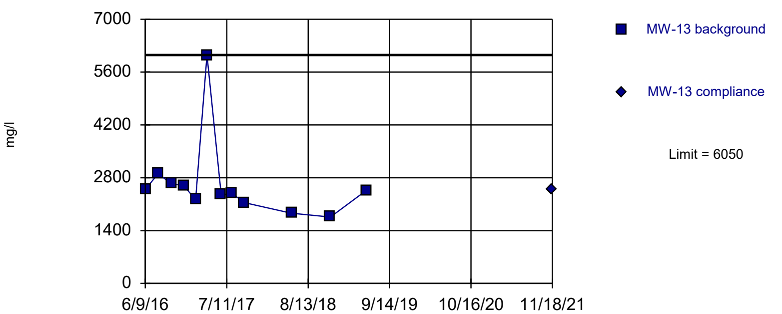
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 12 background values. Well-constituent pair annual alpha = 0.004342. Individual comparison alpha = 0.002173 (1 of 3).

Constituent: DISSOLVED SOLIDS Analysis Run 3/31/2022 2:09 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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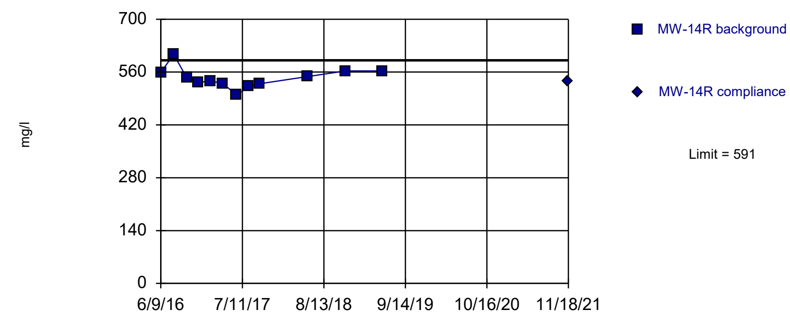
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=544.4, Std. Dev.=27.12, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9426, critical = 0.805. Kappa = 1.716 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: DISSOLVED SOLIDS Analysis Run 3/31/2022 2:09 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: CHLORIDE, DISSOLVED SOLIDS   Analysis Run 3/31/2022 2:13 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-805	MW-805	MW-10	MW-10	MW-13	MW-13	MW-14R	MW-14R
6/6/2016			601					
6/7/2016	520							
6/9/2016					2490		559	
8/10/2016	491							
8/11/2016			649		2910		607	
10/11/2016	466							
10/12/2016			600					
10/13/2016					2640		545	
12/6/2016	464							
12/9/2016			612				533	
12/13/2016					2590			
2/6/2017	467							
2/8/2017			587					
2/9/2017							536	
2/10/2017					2220			
4/4/2017	504							
4/6/2017			596		6050			
4/7/2017							530	
6/13/2017	459							
6/15/2017			625		2350		499	
8/8/2017	470				2380			
8/10/2017			615				521	
10/4/2017			604					
10/5/2017	505				2140		529	
5/23/2018	424		589		1860		548	
11/30/2018	471		588		1760		563	
1/14/2019	477							
5/23/2019	455		588		2460		563	
7/17/2019	478							
11/18/2021		472		542		2480		535

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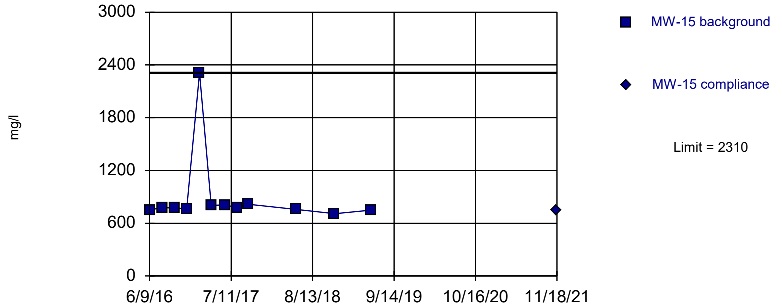
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 12 background values. Well-constituent pair annual alpha = 0.004342. Individual comparison alpha = 0.002173 (1 of 3).

Constituent: DISSOLVED SOLIDS Analysis Run 3/31/2022 2:09 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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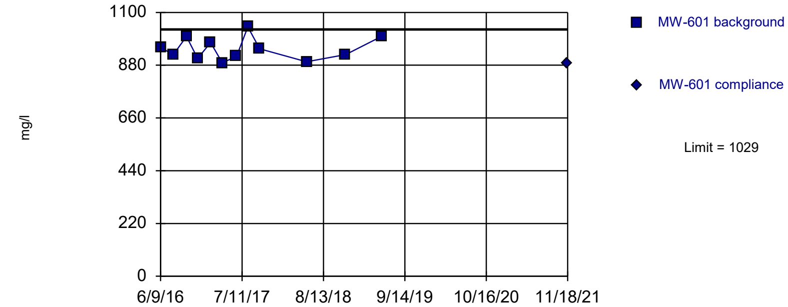
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=947.7, Std. Dev.=47.45, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9332, critical = 0.805. Kappa = 1.716 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: DISSOLVED SOLIDS Analysis Run 3/31/2022 2:09 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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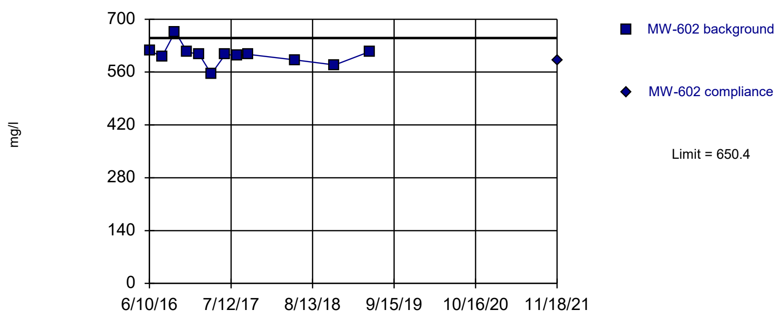
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=605.3, Std. Dev.=26.24, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8925, critical = 0.805. Kappa = 1.716 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: DISSOLVED SOLIDS Analysis Run 3/31/2022 2:09 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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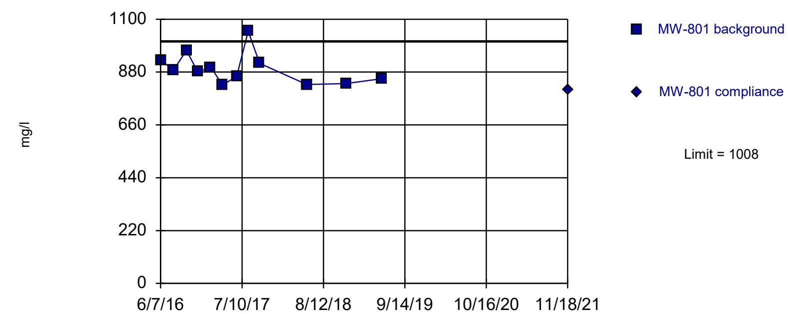
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=894.5, Std. Dev.=65.9, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8949, critical = 0.805. Kappa = 1.716 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: DISSOLVED SOLIDS Analysis Run 3/31/2022 2:09 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: DISSOLVED SOLIDS   Analysis Run 3/31/2022 2:13 PM   View: LF LAQC III

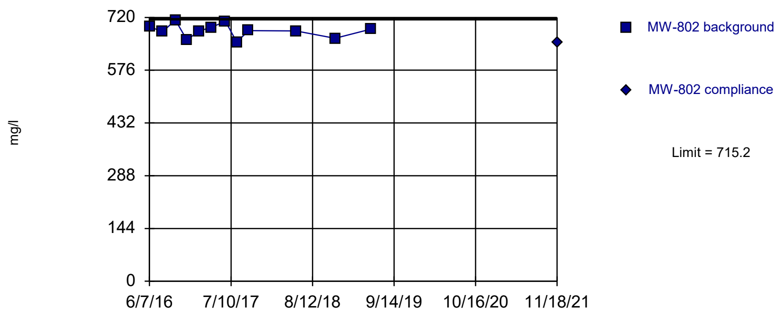
LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-15	MW-15	MW-601	MW-601	MW-602	MW-602	MW-801	MW-801
6/7/2016							930	
6/9/2016	751		956					
6/10/2016					618			
8/9/2016	777		922		600		888	
10/11/2016							970	
10/12/2016	772							
10/13/2016			1000		667			
12/6/2016							880	
12/7/2016	767		908					
12/9/2016					614			
2/7/2017	2310						900	
2/8/2017			974		606			
4/5/2017	803							
4/6/2017			890				826	
4/7/2017					555			
6/14/2017	808						862	
6/15/2017			916		607			
8/9/2017			1040				1050	
8/10/2017	775				604			
10/3/2017	815							
10/4/2017							916	
10/5/2017					607			
10/6/2017			948					
5/23/2018	757		894		592		828	
11/30/2018	709		924		579		832	
5/23/2019	748		1000		615		852	
11/18/2021		740		890		592		805

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=683.7, Std. Dev.=18.39, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9477, critical = 0.805. Kappa = 1.716 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: DISSOLVED SOLIDS Analysis Run 3/31/2022 2:09 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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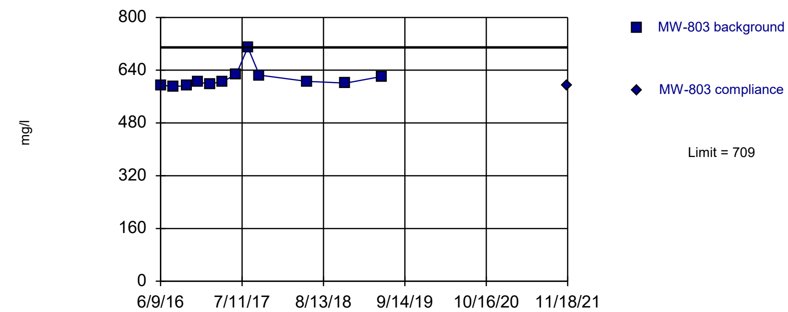
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 12 background values. Well-constituent pair annual alpha = 0.004342. Individual comparison alpha = 0.002173 (1 of 3).

Constituent: DISSOLVED SOLIDS Analysis Run 3/31/2022 2:09 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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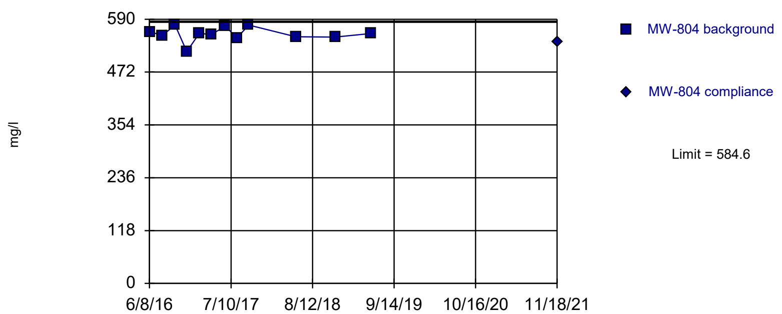
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=557, Std. Dev.=16.11, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8798, critical = 0.805. Kappa = 1.716 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: DISSOLVED SOLIDS Analysis Run 3/31/2022 2:09 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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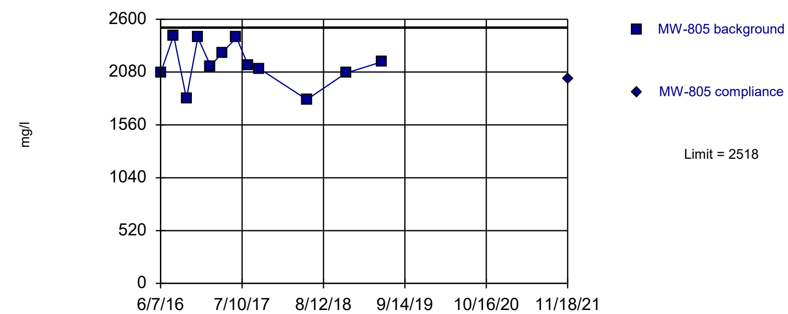
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2158, Std. Dev.=209.6, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.915, critical = 0.805. Kappa = 1.716 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: DISSOLVED SOLIDS Analysis Run 3/31/2022 2:09 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: DISSOLVED SOLIDS   Analysis Run 3/31/2022 2:13 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-802	MW-802	MW-803	MW-803	MW-804	MW-804	MW-805	MW-805
6/7/2016	695						2070	
6/8/2016					562			
6/9/2016			594					
8/10/2016	681				554		2440	
8/12/2016			591					
10/11/2016	713				577		1820	
10/13/2016			592					
12/6/2016	659		603				2420	
12/7/2016					518			
2/6/2017							2140	
2/7/2017	683				559			
2/8/2017			599					
4/4/2017	693				555		2270	
4/7/2017			605					
6/13/2017	709		627		575		2420	
8/7/2017	653							
8/8/2017					548		2150	
8/9/2017			709					
10/4/2017	684		625					
10/5/2017					577		2110	
5/23/2018	683		606		551		1810	
11/30/2018	663		601		550		2070	
5/23/2019	688		621		558		2180	
11/18/2021		652		594		539		2010

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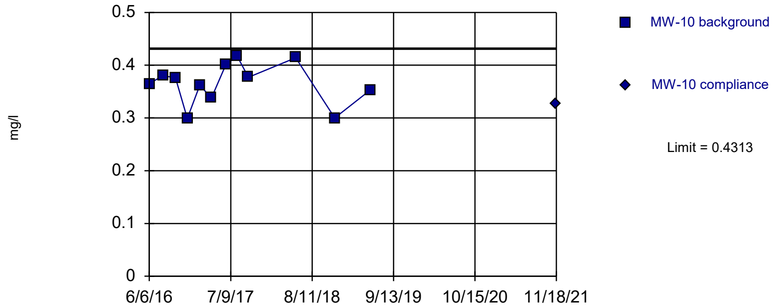
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.3652, Std. Dev.=0.03856, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9296, critical = 0.805. Kappa = 1.716 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 3/31/2022 2:09 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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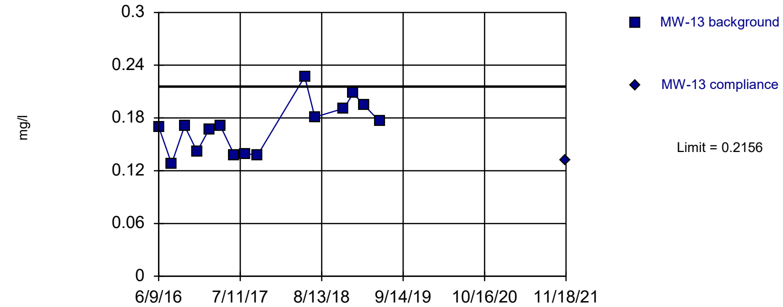
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1693, Std. Dev.=0.02865, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9466, critical = 0.835. Kappa = 1.615 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 3/31/2022 2:09 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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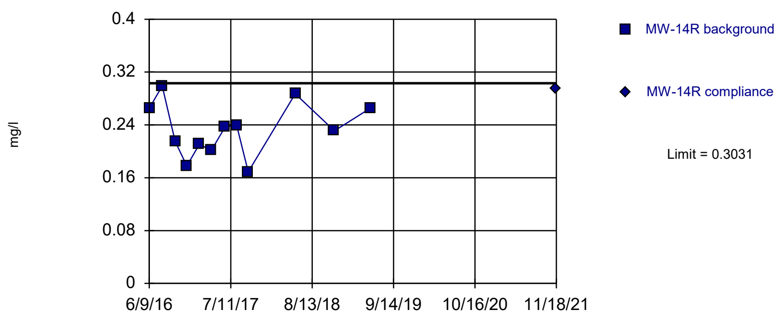
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.2331, Std. Dev.=0.04082, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9709, critical = 0.805. Kappa = 1.716 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 3/31/2022 2:09 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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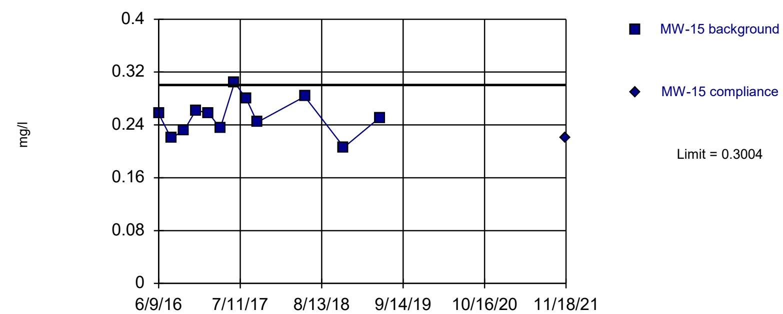
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.2527, Std. Dev.=0.0278, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9878, critical = 0.805. Kappa = 1.716 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 3/31/2022 2:09 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: FLUORIDE   Analysis Run 3/31/2022 2:13 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-10	MW-10	MW-13	MW-13	MW-14R	MW-14R	MW-15	MW-15
6/6/2016	0.365							
6/9/2016			0.17		0.265		0.257	
8/9/2016							0.22	
8/11/2016	0.38		0.128		0.299			
10/12/2016	0.376						0.232	
10/13/2016			0.171		0.215			
12/7/2016							0.262	
12/9/2016	0.299				0.178			
12/13/2016			0.142					
2/7/2017							0.258	
2/8/2017	0.362							
2/9/2017					0.211			
2/10/2017			0.167					
4/5/2017							0.235	
4/6/2017	0.338		0.171					
4/7/2017					0.201			
6/14/2017							0.304	
6/15/2017	0.401		0.137		0.237			
8/8/2017			0.139					
8/10/2017	0.417				0.239		0.28	
10/3/2017							0.244	
10/4/2017	0.377							
10/5/2017			0.138		0.169			
5/23/2018	0.414		0.227		0.287		0.283	
7/11/2018			0.181					
11/30/2018	0.3		0.191		0.231		0.206	
1/14/2019			0.208					
3/11/2019			0.194					
5/23/2019	0.353		0.176		0.265		0.251	
11/18/2021		0.327		0.132		0.294		0.22

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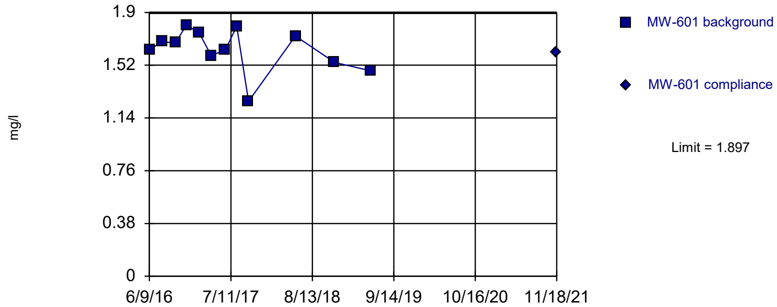
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.633, Std. Dev.=0.154, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9058, critical = 0.805. Kappa = 1.716 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 3/31/2022 2:10 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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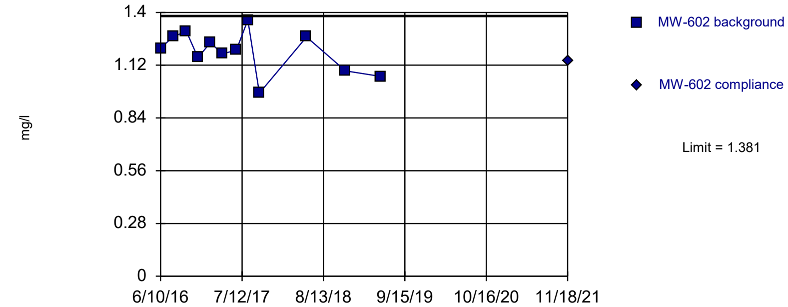
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.193, Std. Dev.=0.1096, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9686, critical = 0.805. Kappa = 1.716 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 3/31/2022 2:10 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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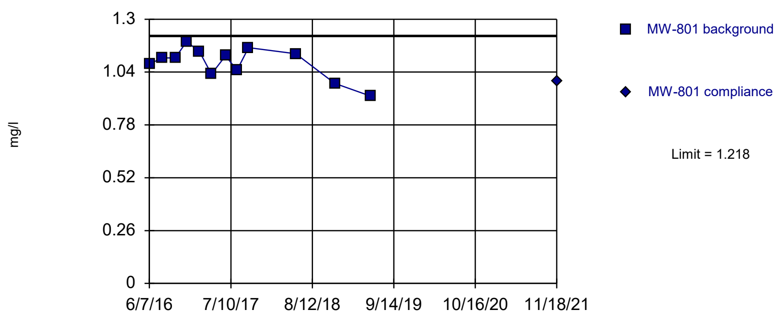
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.086, Std. Dev.=0.077, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9388, critical = 0.805. Kappa = 1.716 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 3/31/2022 2:10 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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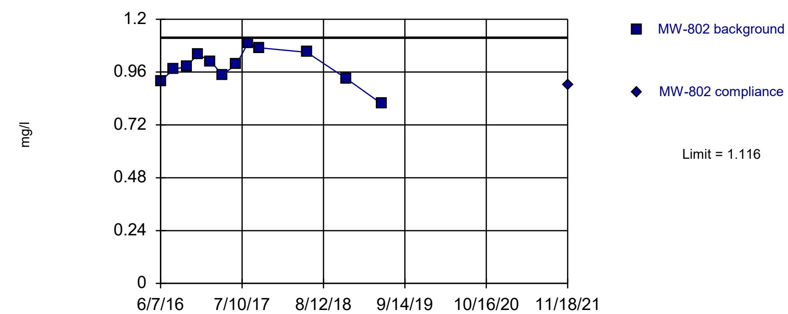
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.9857, Std. Dev.=0.07594, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9549, critical = 0.805. Kappa = 1.716 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 3/31/2022 2:10 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: FLUORIDE Analysis Run 3/31/2022 2:13 PM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-601	MW-601	MW-602	MW-602	MW-801	MW-801	MW-802	MW-802
6/7/2016					1.08		0.92	
6/9/2016	1.63							
6/10/2016			1.21					
8/9/2016	1.69		1.27		1.11			
8/10/2016							0.972	
10/11/2016					1.11		0.986	
10/13/2016	1.68		1.3					
12/6/2016					1.19		1.04	
12/7/2016	1.81							
12/9/2016			1.16					
2/7/2017					1.14		1.01	
2/8/2017	1.75		1.24					
4/4/2017							0.947	
4/6/2017	1.59				1.03			
4/7/2017			1.18					
6/13/2017							0.995	
6/14/2017					1.12			
6/15/2017	1.63		1.2					
8/7/2017							1.09	
8/9/2017	1.8				1.05			
8/10/2017			1.36					
10/4/2017					1.16		1.07	
10/5/2017			0.972					
10/6/2017	1.26							
5/23/2018	1.73		1.27		1.13		1.05	
11/30/2018	1.54		1.09		0.984		0.932	
5/23/2019	1.48		1.06		0.922		0.816	
11/18/2021		1.61		1.14		0.997		0.904

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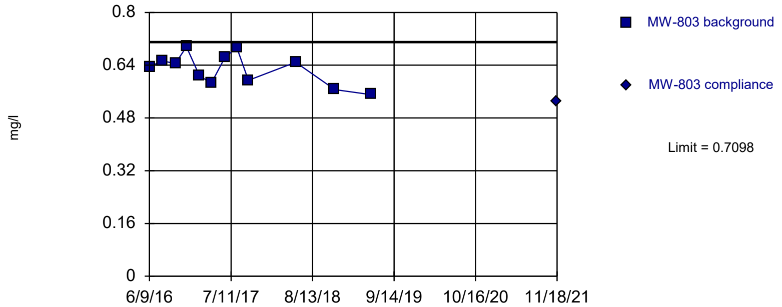
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.6284, Std. Dev.=0.04745, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9533, critical = 0.805. Kappa = 1.716 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 3/31/2022 2:10 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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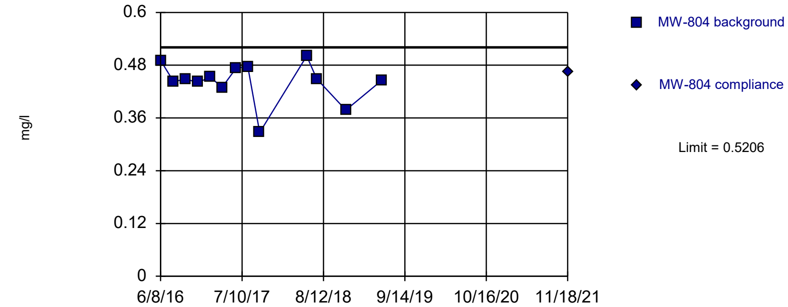
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.4427, Std. Dev.=0.04633, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8629, critical = 0.814. Kappa = 1.682 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 3/31/2022 2:10 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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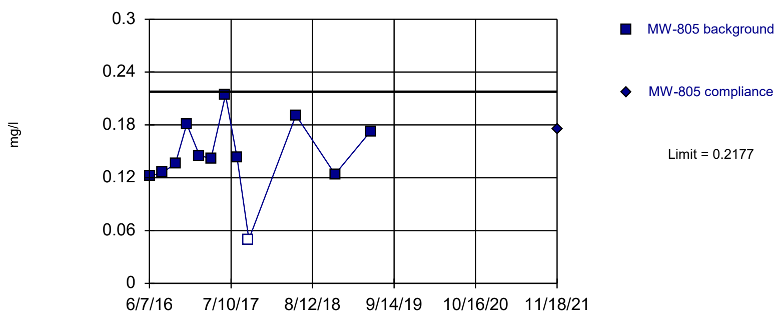
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1456, Std. Dev.=0.042, n=12, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9313, critical = 0.805. Kappa = 1.716 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 3/31/2022 2:10 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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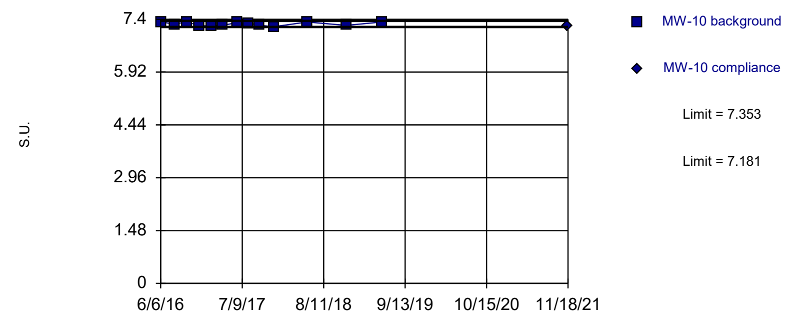
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.267, Std. Dev.=0.05122, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.88, critical = 0.814. Kappa = 1.682 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 3/31/2022 2:10 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: FLUORIDE, pH Analysis Run 3/31/2022 2:13 PM View: LF LAQC III

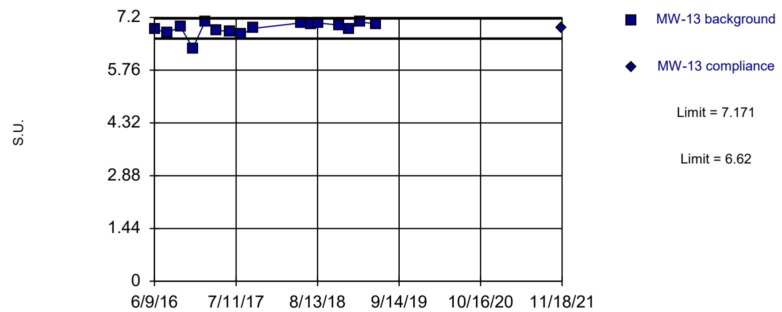
LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-803	MW-803	MW-804	MW-804	MW-805	MW-805	MW-10	MW-10
6/6/2016							7.33	
6/7/2016					0.122			
6/8/2016			0.491					
6/9/2016	0.636							
8/10/2016			0.443		0.126			
8/11/2016							7.26	
8/12/2016	0.653							
10/11/2016			0.448		0.136			
10/12/2016							7.33	
10/13/2016	0.645							
12/6/2016	0.696				0.181			
12/7/2016			0.441					
12/9/2016							7.22	
2/6/2017					0.145			
2/7/2017			0.453					
2/8/2017	0.607						7.21	
4/4/2017			0.429		0.142			
4/6/2017							7.23	
4/7/2017	0.586							
6/13/2017	0.665		0.474		0.214			
6/15/2017							7.31	
8/8/2017			0.476		0.143			
8/9/2017	0.693							
8/10/2017							7.29	
10/4/2017	0.594						7.23	
10/5/2017			0.327		<0.1			
12/12/2017							7.19	
5/23/2018	0.649		0.501		0.191		7.32	
7/11/2018			0.449					
11/30/2018	0.566		0.378		0.124		7.23	
5/23/2019	0.551		0.445		0.173		7.32	
11/18/2021		0.531		0.465		0.175		7.22

Within Limits

Prediction Limit

Intrawell Parametric



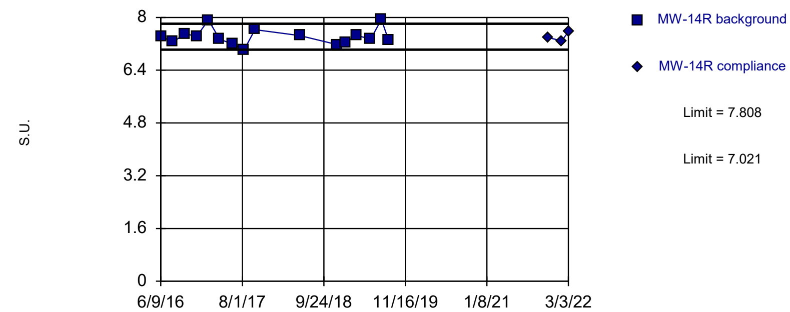
Background Data Summary (based on cube transformation): Mean=329.4, Std. Dev.=24.85, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.845, critical = 0.844. Kappa = 1.581 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 3/31/2022 2:10 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limits

Prediction Limit

Intrawell Parametric



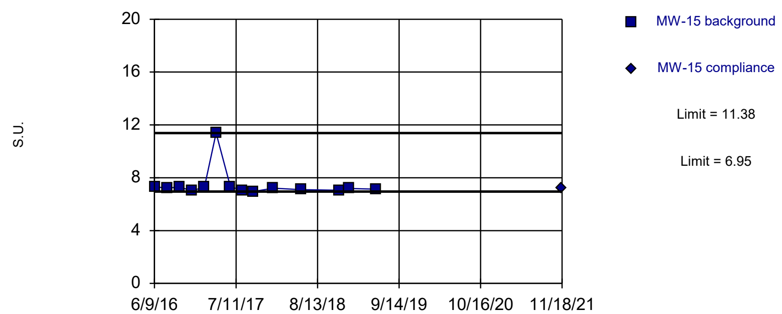
Background Data Summary: Mean=7.414, Std. Dev.=0.2491, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.915, critical = 0.844. Kappa = 1.581 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 3/31/2022 2:10 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limits

Prediction Limit

Intrawell Non-parametric



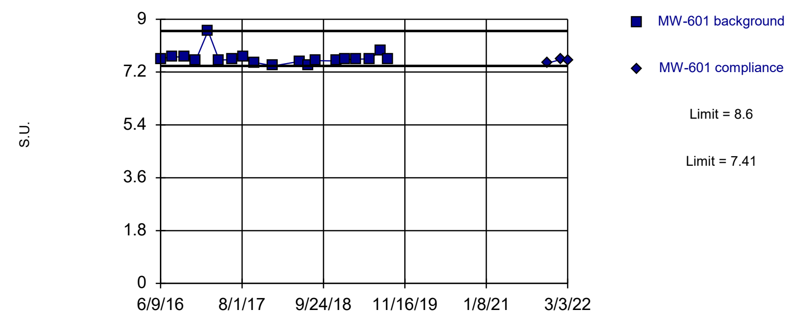
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 14 background values. Well-constituent pair annual alpha = 0.006393. Individual comparison alpha = 0.003199 (1 of 3).

Constituent: pH Analysis Run 3/31/2022 2:10 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limits

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 19 background values. Well-constituent pair annual alpha = 0.002713. Individual comparison alpha = 0.001357 (1 of 3).

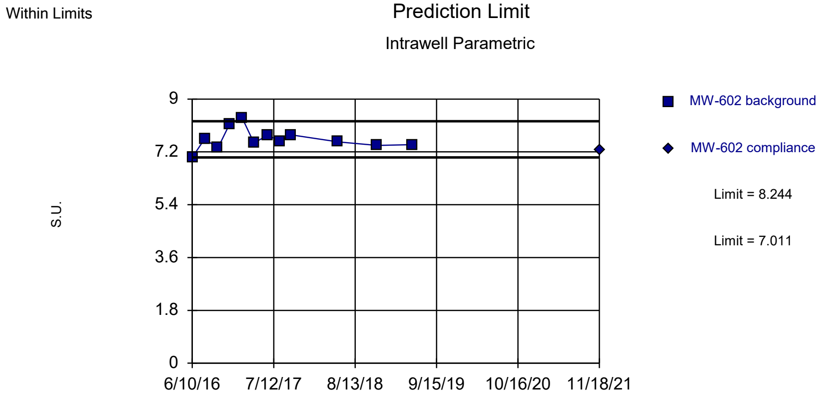
Constituent: pH Analysis Run 3/31/2022 2:10 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: pH   Analysis Run 3/31/2022 2:13 PM   View: LF LAQC III

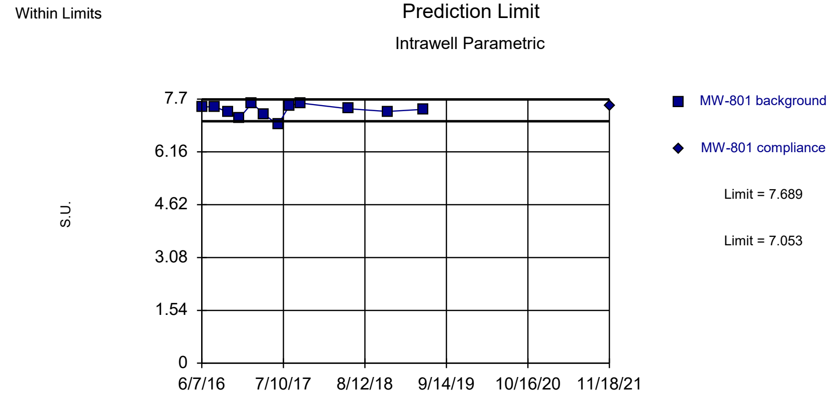
LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-13	MW-13	MW-14R	MW-14R	MW-15	MW-15	MW-601	MW-601
6/9/2016	6.88		7.42		7.31		7.66	
8/9/2016					7.23		7.72	
8/11/2016	6.78		7.26					
10/12/2016					7.28			
10/13/2016	6.95		7.51				7.71	
12/7/2016					7.02		7.61	
12/9/2016			7.42					
12/13/2016	6.36							
2/7/2017					7.28			
2/8/2017							8.6	
2/9/2017			7.92					
2/10/2017	7.08							
4/5/2017					11.38			
4/6/2017	6.86						7.61	
4/7/2017			7.34					
6/14/2017					7.34			
6/15/2017	6.8		7.19				7.62	
8/8/2017	6.74							
8/9/2017							7.72	
8/10/2017			7.01		7.02			
10/3/2017					6.95			
10/5/2017	6.9		7.63					
10/6/2017							7.53	
1/9/2018					7.21		7.41	
5/23/2018	7.05		7.45		7.1		7.56	
7/11/2018	7.02						7.43	
8/16/2018	7.05						7.59	
11/30/2018	6.99		7.18		7.05		7.58	
1/14/2019	6.87		7.25		7.18		7.63	
3/11/2019	7.07		7.45				7.64	
5/23/2019	7.03		7.35		7.14		7.65	
7/17/2019			7.94				7.95	
8/23/2019			7.31				7.66	
11/18/2021		6.9		7.39		7.25		7.5
1/27/2022				7.29 Extra Sample				7.63 Extra Sample
3/3/2022				7.56 Extra Sample				7.6 Extra Sample



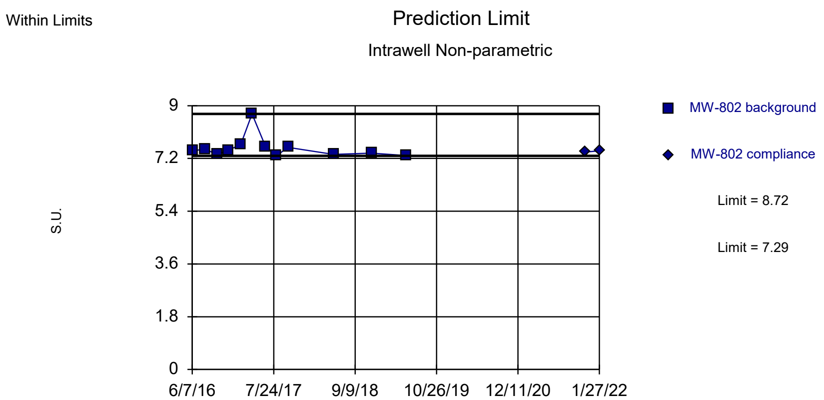
Background Data Summary: Mean=7.628, Std. Dev.=0.359, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.943, critical = 0.805. Kappa = 1.716 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 3/31/2022 2:10 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data



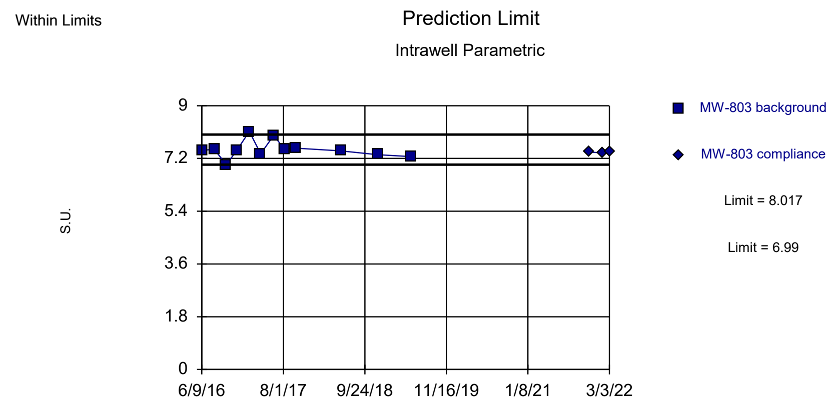
Background Data Summary: Mean=7.371, Std. Dev.=0.1854, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.914, critical = 0.805. Kappa = 1.716 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 3/31/2022 2:10 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 12 background values. Well-constituent pair annual alpha = 0.008684. Individual comparison alpha = 0.004347 (1 of 3).

Constituent: pH Analysis Run 3/31/2022 2:10 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data



Background Data Summary: Mean=7.503, Std. Dev.=0.2994, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8953, critical = 0.805. Kappa = 1.716 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 3/31/2022 2:10 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: pH   Analysis Run 3/31/2022 2:13 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-602	MW-602	MW-801	MW-801	MW-802	MW-802		MW-803	MW-803	
6/7/2016			7.47		7.46					
6/9/2016								7.48		
6/10/2016	7.01									
8/9/2016	7.64		7.48							
8/10/2016					7.52					
8/12/2016								7.51		
10/11/2016			7.32		7.34					
10/13/2016	7.34							6.99		
12/6/2016			7.14		7.48			7.48		
12/9/2016	8.15									
2/7/2017			7.58		7.67					
2/8/2017	8.36							8.12		
4/5/2017					8.72					
4/6/2017			7.26							
4/7/2017	7.51							7.36		
6/13/2017					7.6			7.98		
6/14/2017			6.95							
6/15/2017	7.77									
8/7/2017					7.29					
8/8/2017								7.52		
8/9/2017			7.51							
8/10/2017	7.56									
10/4/2017			7.58		7.58			7.55		
10/5/2017	7.78									
5/23/2018	7.54		7.42		7.34			7.46		
11/30/2018	7.42		7.34		7.38			7.33		
5/23/2019	7.45		7.4		7.3			7.26		
11/18/2021		7.27		7.51		7.42			7.42	
1/27/2022						7.46	Extra Sample		7.39	Extra Sample
3/3/2022									7.43	Extra Sample

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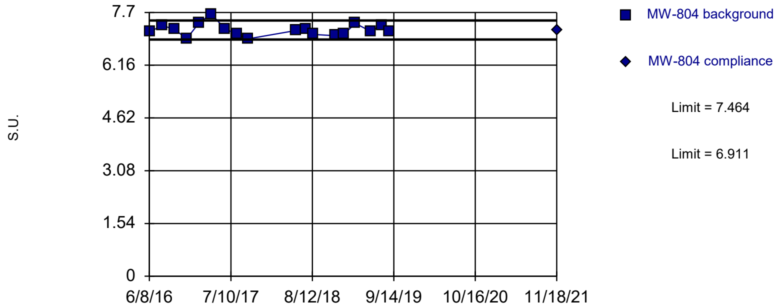
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.188, Std. Dev.=0.1795, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9456, critical = 0.858. Kappa = 1.541 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 3/31/2022 2:10 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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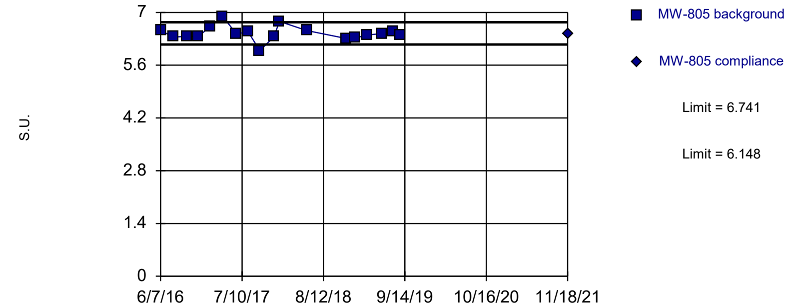
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.444, Std. Dev.=0.1924, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9113, critical = 0.858. Kappa = 1.541 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 3/31/2022 2:10 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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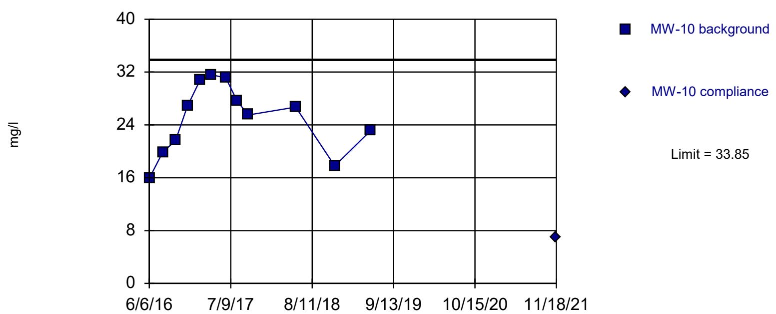
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=24.86, Std. Dev.=5.24, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9437, critical = 0.805. Kappa = 1.716 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: SULFATE Analysis Run 3/31/2022 2:10 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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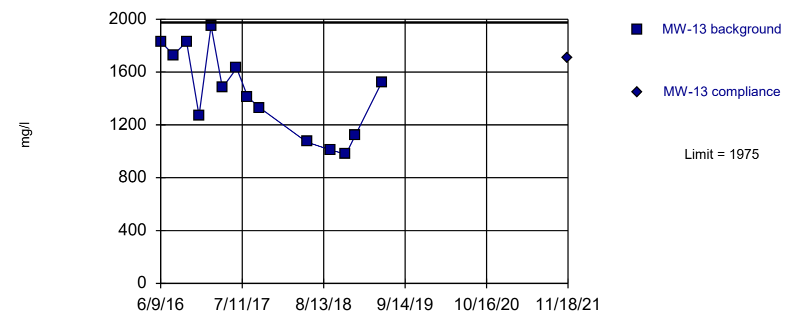
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1440, Std. Dev.=324.9, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9463, critical = 0.825. Kappa = 1.648 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: SULFATE Analysis Run 3/31/2022 2:10 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: pH, SULFATE   Analysis Run 3/31/2022 2:13 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-804	MW-804	MW-805	MW-805	MW-10	MW-10	MW-13	MW-13
6/6/2016					15.9			
6/7/2016			6.52					
6/8/2016	7.13							
6/9/2016							1830	
8/10/2016	7.32		6.35					
8/11/2016					19.9		1730	
10/11/2016	7.2		6.36					
10/12/2016					21.6			
10/13/2016							1830	
12/6/2016			6.36					
12/7/2016	6.93							
12/9/2016					26.8			
12/13/2016							1270	
2/6/2017			6.62					
2/7/2017	7.41							
2/8/2017					30.7			
2/10/2017							1950	
4/5/2017	7.65		6.9					
4/6/2017					31.6		1480	
6/13/2017	7.22		6.43					
6/15/2017					31.1		1630	
8/8/2017	7.06		6.49				1410	
8/10/2017					27.6			
10/4/2017					25.5			
10/5/2017	6.93		5.99				1330	
12/12/2017			6.35					
1/9/2018			6.76					
5/23/2018	7.17		6.52		26.7		1070	
7/11/2018	7.21							
8/16/2018	7.06							
9/17/2018							1010	
11/30/2018	7.02		6.31		17.8		978	
1/14/2019	7.07		6.32				1120	
3/11/2019	7.38		6.4					
5/23/2019	7.15		6.44		23.1		1520	
7/17/2019	7.31		6.48					
8/22/2019	7.16		6.4					
11/18/2021		7.19		6.44		7.03		1710

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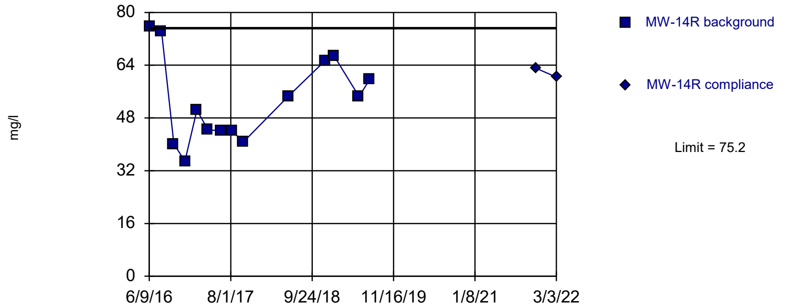
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=53.54, Std. Dev.=13.15, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9355, critical = 0.825. Kappa = 1.648 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: SULFATE Analysis Run 3/31/2022 2:10 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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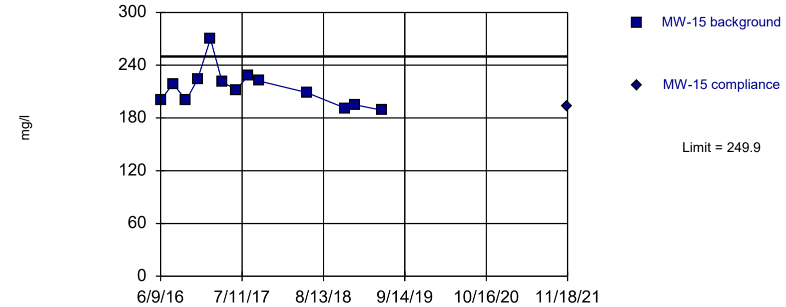
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=213.8, Std. Dev.=21.42, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8725, critical = 0.814. Kappa = 1.682 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: SULFATE Analysis Run 3/31/2022 2:10 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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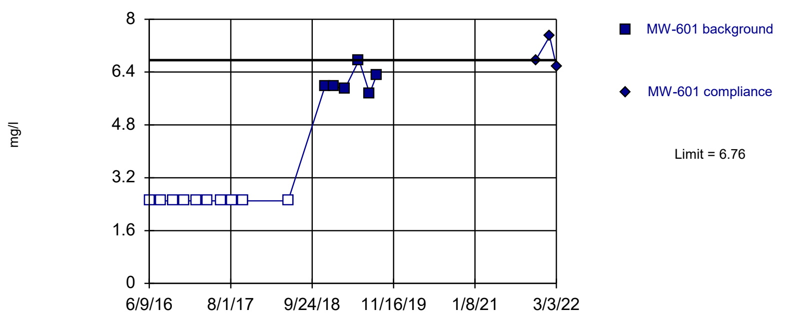
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 62.5% NDs. Well-constituent pair annual alpha = 0.002051. Individual comparison alpha = 0.001026 (1 of 3).

Constituent: SULFATE Analysis Run 3/31/2022 2:10 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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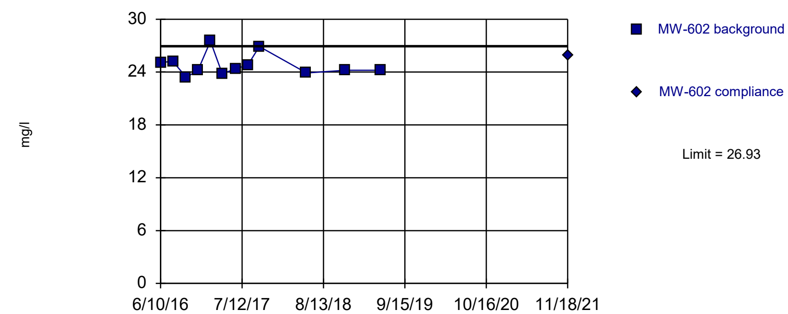
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=24.8, Std. Dev.=1.242, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8446, critical = 0.805. Kappa = 1.716 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: SULFATE Analysis Run 3/31/2022 2:10 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: SULFATE   Analysis Run 3/31/2022 2:13 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-14R	MW-14R	MW-15	MW-15	MW-601	MW-601	MW-602	MW-602
6/9/2016	75.8		200		<5			
6/10/2016							25.1	
8/9/2016			219		<5		25.2	
8/11/2016	74.2							
10/12/2016			200					
10/13/2016	40.1				<5		23.4	
12/7/2016			224		<5			
12/9/2016	34.9						24.2	
2/7/2017			270					
2/8/2017					<5		27.5	
2/9/2017	50.4							
4/5/2017			221					
4/6/2017					<5			
4/7/2017	44.3						23.8	
6/14/2017			212					
6/15/2017	44.2				<5		24.4	
8/9/2017					<5			
8/10/2017	44		228				24.8	
10/3/2017			222					
10/5/2017	40.7						26.9	
10/6/2017					<5			
5/23/2018	54.5		209		<5		23.9	
11/30/2018	65.4		191		5.98		24.2	
1/14/2019	66.9		195		5.97			
3/11/2019					5.89			
5/23/2019	54.5		189		6.76		24.2	
7/17/2019	59.6				5.75			
8/23/2019					6.32			
11/18/2021		63.1		193		6.77		25.9
1/27/2022						7.48 1st Verification		
3/3/2022		60.4 Extra Sample				6.58 2nd Verification		

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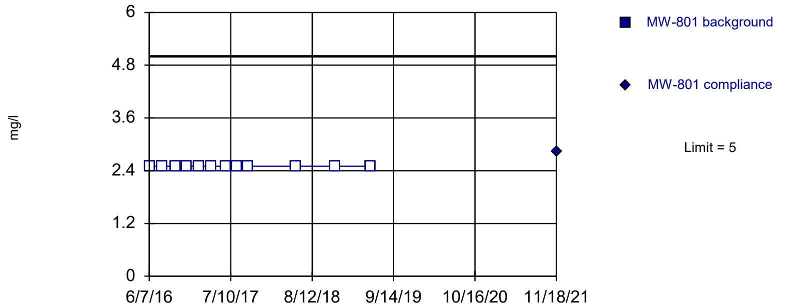
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 12) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.004342. Individual comparison alpha = 0.002173 (1 of 3).

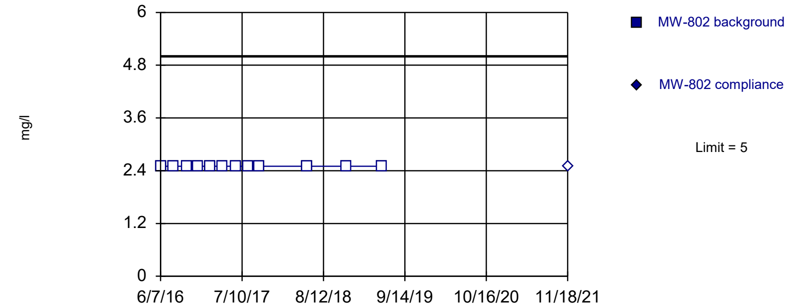
Constituent: SULFATE Analysis Run 3/31/2022 2:10 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Sanitas™ v.9.6.32 Sanitas software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 12) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.004342. Individual comparison alpha = 0.002173 (1 of 3).

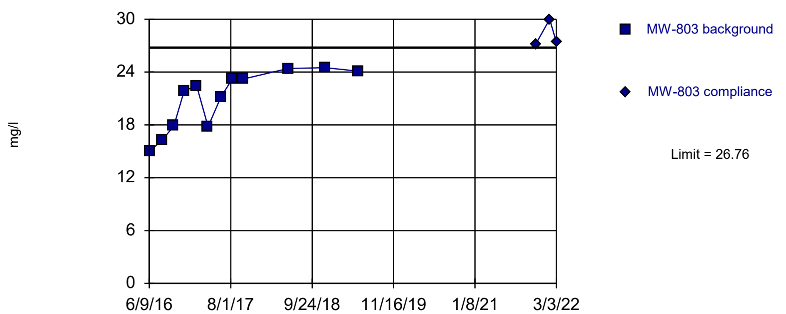
Constituent: SULFATE Analysis Run 3/31/2022 2:10 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Sanitas™ v.9.6.32 Sanitas software licensed to SCS Engineers. UG

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=20.98, Std. Dev.=3.368, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8745, critical = 0.805. Kappa = 1.716 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

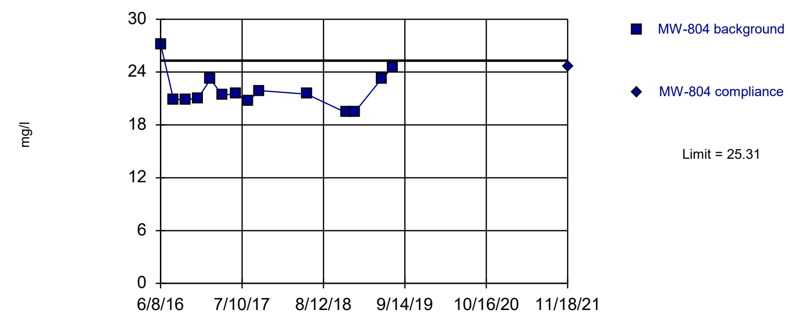
Constituent: SULFATE Analysis Run 3/31/2022 2:10 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Sanitas™ v.9.6.32 Sanitas software licensed to SCS Engineers. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=21.91, Std. Dev.=2.058, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8766, critical = 0.825. Kappa = 1.648 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: SULFATE Analysis Run 3/31/2022 2:10 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: SULFATE   Analysis Run 3/31/2022 2:14 PM   View: LF LAQC III

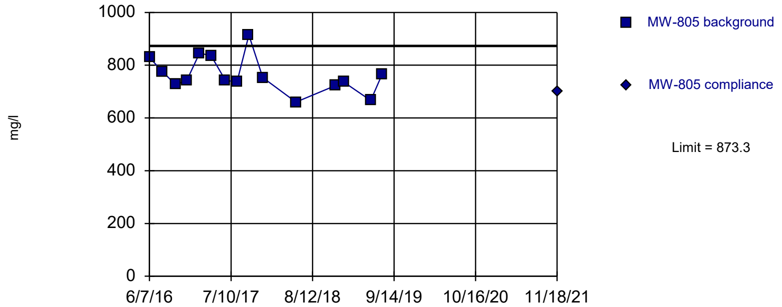
LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-801	MW-801	MW-802	MW-802	MW-803	MW-803	MW-804	MW-804
6/7/2016	<5		<5					
6/8/2016							27.2	
6/9/2016					15			
8/9/2016	<5							
8/10/2016			<5				20.9	
8/12/2016					16.2			
10/11/2016	<5		<5				20.9	
10/13/2016					17.9			
12/6/2016	<5		<5		21.9			
12/7/2016							21	
2/7/2017	<5		<5				23.2	
2/8/2017					22.4			
4/4/2017			<5				21.4	
4/6/2017	<5							
4/7/2017					17.8			
6/13/2017			<5		21.2		21.5	
6/14/2017	<5							
8/7/2017			<5					
8/8/2017							20.7	
8/9/2017	<5				23.2			
10/4/2017	<5		<5		23.2			
10/5/2017							21.9	
5/23/2018	<5		<5		24.4		21.5	
11/30/2018	<5		<5		24.5		19.4	
1/14/2019							19.5	
5/23/2019	<5		<5		24.1		23.2	
7/17/2019							24.5	
11/18/2021		2.82		<5		27.2		24.6
1/27/2022						30 1st Verification		
3/3/2022						27.4 2nd Verification		

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=763.2, Std. Dev.=68.17, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9341, critical = 0.835. Kappa = 1.615 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: SULFATE Analysis Run 3/31/2022 2:11 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: SULFATE   Analysis Run 3/31/2022 2:14 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-805	MW-805
6/7/2016	829	
8/10/2016	776	
10/11/2016	726	
12/6/2016	742	
2/6/2017	846	
4/4/2017	836	
6/13/2017	742	
8/8/2017	737	
10/5/2017	914	
12/12/2017	753	
5/23/2018	660	
11/30/2018	722	
1/14/2019	735	
5/23/2019	666	
7/17/2019	764	
11/18/2021		702

Prediction Limit

LaCygne Client: SCS Engineers Data: LaC GW Data Printed 3/31/2022, 2:14 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
BORON (mg/l)	MW-10	0.9889	n/a	11/18/2021	0.781	No	13	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-13	0.6068	n/a	11/18/2021	0.348	No	16	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-14R	0.8115	n/a	11/18/2021	0.81	No	14	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-15	0.3016	n/a	11/18/2021	0.245	No	13	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-601	1.932	n/a	11/18/2021	1.83	No	12	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-602	2.465	n/a	11/18/2021	2.29	No	12	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-801	2.411	n/a	11/18/2021	2.21	No	12	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-802	2.579	n/a	11/18/2021	2.46	No	12	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-803	2.188	n/a	11/18/2021	2.07	No	12	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-804	1.762	n/a	11/18/2021	1.56	No	18	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-805	0.578	n/a	11/18/2021	0.546	No	14	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-10	61.5	n/a	11/18/2021	48.6	No	12	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-13	404.2	n/a	11/18/2021	403	No	14	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-14R	61.85	n/a	3/3/2022	48.5	No	14	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-15	110.1	n/a	11/18/2021	104	No	13	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-601	23.63	n/a	3/3/2022	16.8	No	14	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-602	25.84	n/a	11/18/2021	23.2	No	12	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-801	36.84	n/a	11/18/2021	25.6	No	12	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-802	41.1	n/a	11/18/2021	28	No	12	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-803	49.74	n/a	3/3/2022	37.7	No	12	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-804	68.94	n/a	11/18/2021	66.8	No	14	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-805	487.8	n/a	11/18/2021	452	No	17	0	No	0.001075	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-10	68.87	n/a	11/18/2021	50.3	No	12	0	No	0.001075	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-13	19.33	n/a	11/18/2021	16.1	No	14	0	No	0.001075	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-14R	6.113	n/a	3/3/2022	5.97	No	16	0	No	0.001075	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-15	20.38	n/a	11/18/2021	11.7	No	13	0	No	0.001075	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-601	201	n/a	3/3/2022	166	No	14	0	n/a	0.0016	NP Intra (normality) ...
CHLORIDE (mg/l)	MW-602	18.02	n/a	11/18/2021	17.1	No	12	0	No	0.001075	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-801	126.2	n/a	11/18/2021	96.2	No	12	0	No	0.001075	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-802	38.44	n/a	1/27/2022	36.3	No	12	0	No	0.001075	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-803	49.94	n/a	1/27/2022	49	No	12	0	No	0.001075	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-804	32.96	n/a	11/18/2021	29.3	No	14	0	No	0.001075	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-805	514.9	n/a	11/18/2021	472	No	14	0	No	0.001075	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-10	636.2	n/a	11/18/2021	542	No	12	0	No	0.001075	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-13	6050	n/a	11/18/2021	2480	No	12	0	n/a	0.002173	NP Intra (normality) ...
DISSOLVED SOLIDS (mg/l)	MW-14R	591	n/a	11/18/2021	535	No	12	0	No	0.001075	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-15	2310	n/a	11/18/2021	740	No	12	0	n/a	0.002173	NP Intra (normality) ...
DISSOLVED SOLIDS (mg/l)	MW-601	1029	n/a	11/18/2021	890	No	12	0	No	0.001075	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-602	650.4	n/a	11/18/2021	592	No	12	0	No	0.001075	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-801	1008	n/a	11/18/2021	805	No	12	0	No	0.001075	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-802	715.2	n/a	11/18/2021	652	No	12	0	No	0.001075	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-803	709	n/a	11/18/2021	594	No	12	0	n/a	0.002173	NP Intra (normality) ...
DISSOLVED SOLIDS (mg/l)	MW-804	584.6	n/a	11/18/2021	539	No	12	0	No	0.001075	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-805	2518	n/a	11/18/2021	2010	No	12	0	No	0.001075	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-10	0.4313	n/a	11/18/2021	0.327	No	12	0	No	0.001075	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-13	0.2156	n/a	11/18/2021	0.132	No	15	0	No	0.001075	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-14R	0.3031	n/a	11/18/2021	0.294	No	12	0	No	0.001075	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-15	0.3004	n/a	11/18/2021	0.22	No	12	0	No	0.001075	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-601	1.897	n/a	11/18/2021	1.61	No	12	0	No	0.001075	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-602	1.381	n/a	11/18/2021	1.14	No	12	0	No	0.001075	Param Intra 1 of 3

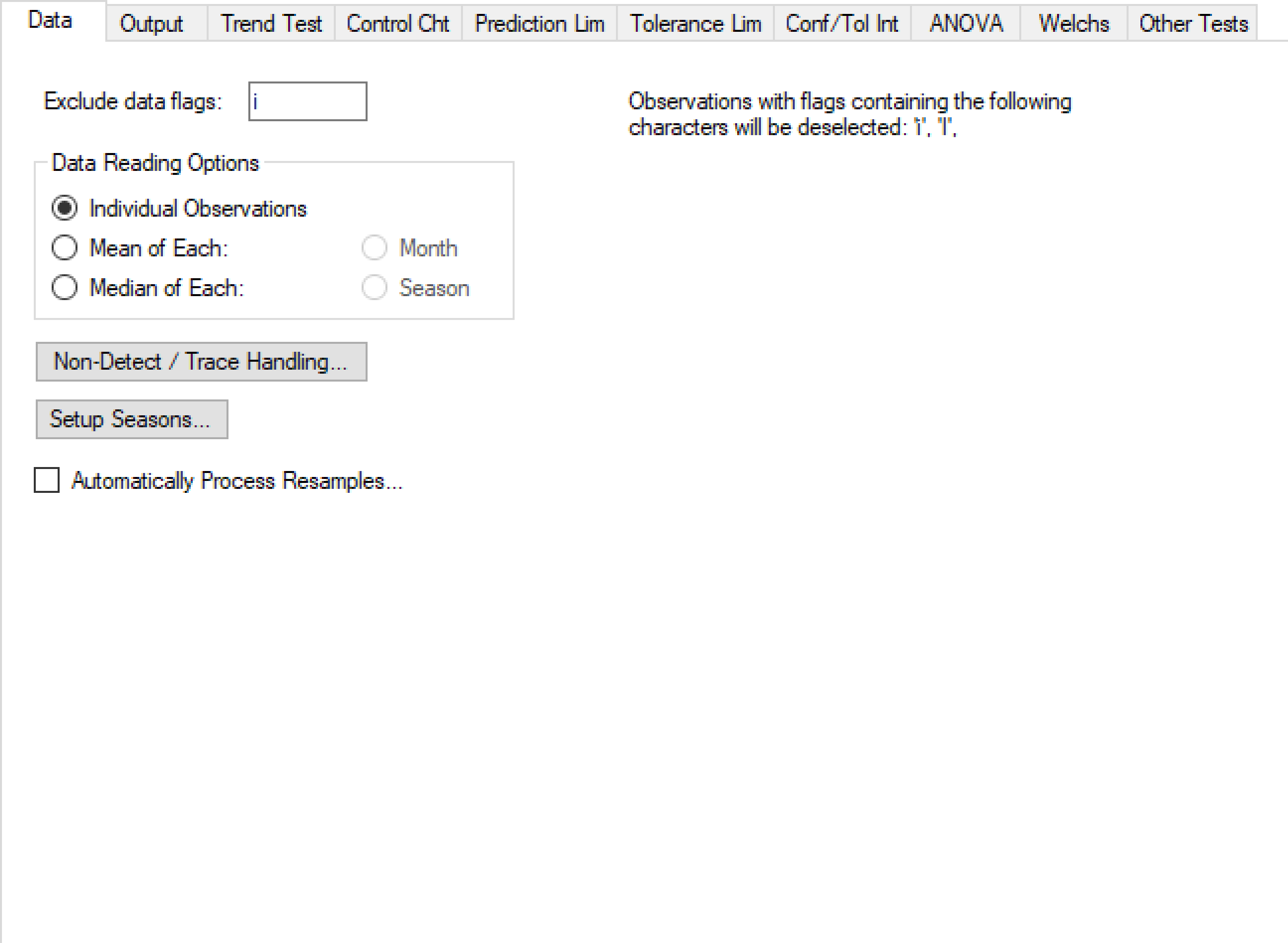
Prediction Limit

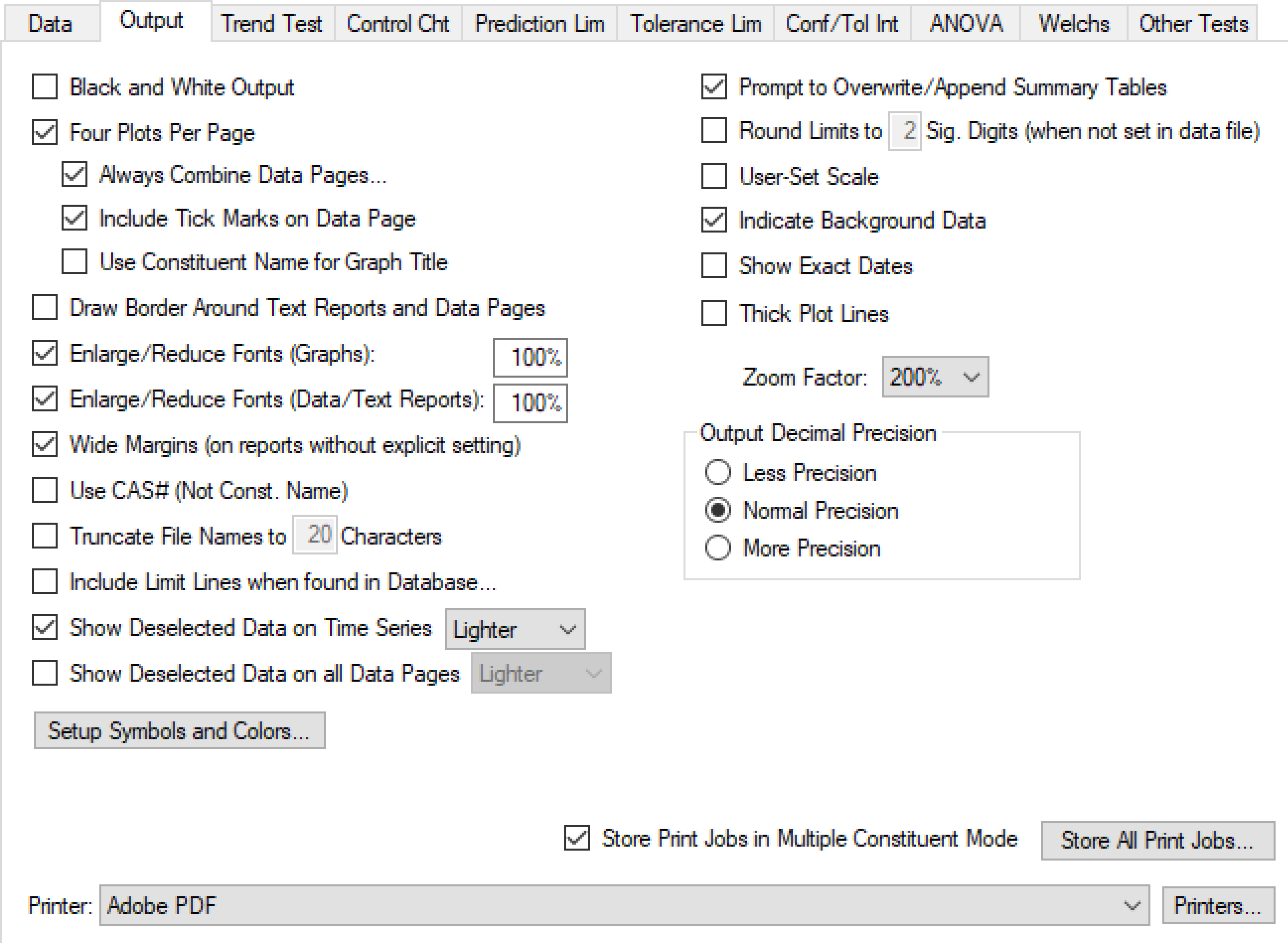
LaCygne   Client: SCS Engineers   Data: LaC GW Data   Printed 3/31/2022, 2:14 PM

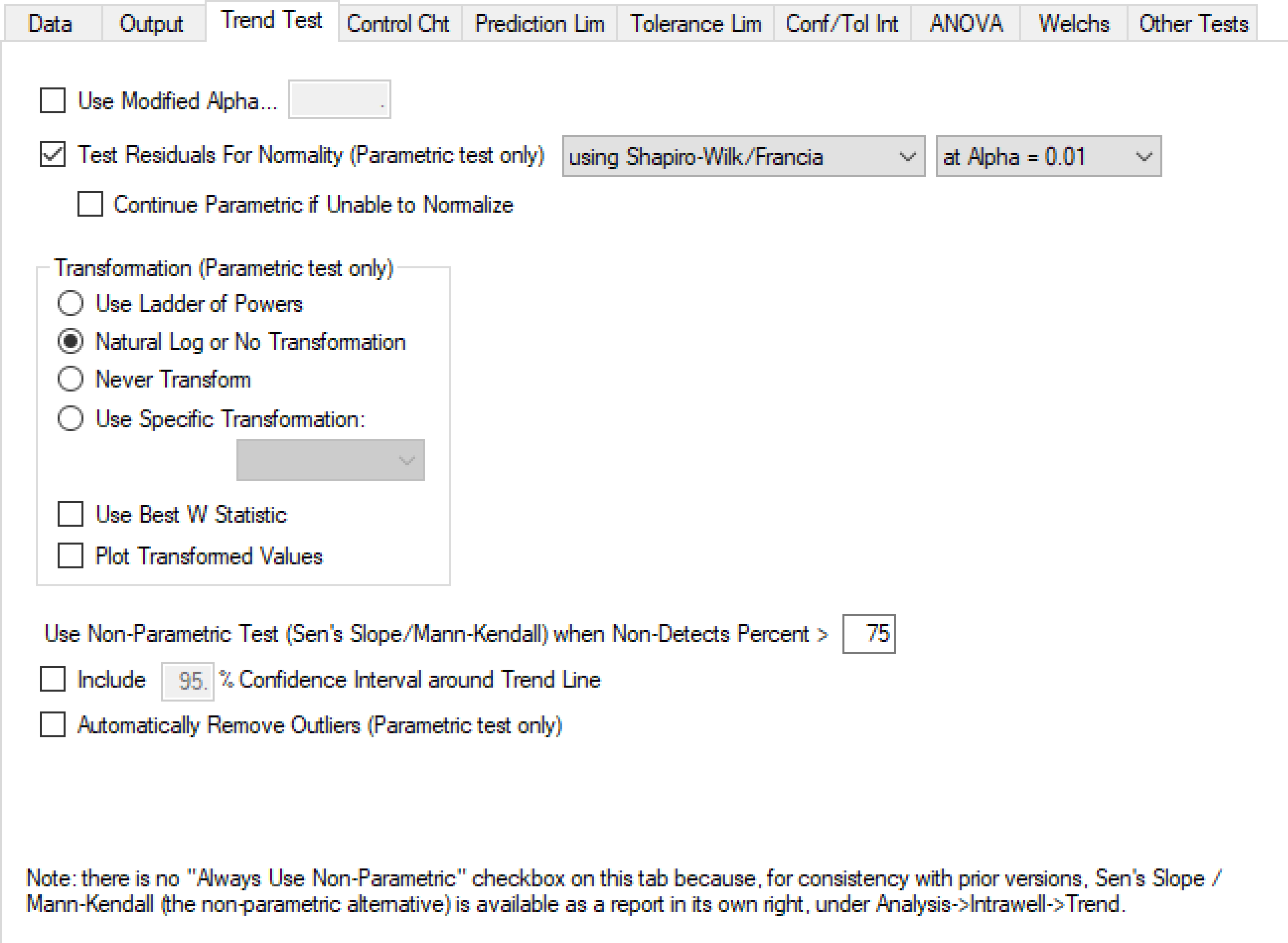
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
FLUORIDE (mg/l)	MW-801	1.218	n/a	11/18/2021	0.997	No	12	0	No	0.001075	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-802	1.116	n/a	11/18/2021	0.904	No	12	0	No	0.001075	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-803	0.7098	n/a	11/18/2021	0.531	No	12	0	No	0.001075	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-804	0.5206	n/a	11/18/2021	0.465	No	13	0	No	0.001075	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-805	0.2177	n/a	11/18/2021	0.175	No	12	8.333	No	0.001075	Param Intra 1 of 3
pH (S.U.)	MW-10	7.353	7.181	11/18/2021	7.22	No	13	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-13	7.171	6.62	11/18/2021	6.9	No	16	0	x^3	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-14R	7.808	7.021	3/3/2022	7.56	No	16	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-15	11.38	6.95	11/18/2021	7.25	No	14	0	n/a	0.003199	NP Intra (normality) ...
pH (S.U.)	MW-601	8.6	7.41	3/3/2022	7.6	No	19	0	n/a	0.001357	NP Intra (normality) ...
pH (S.U.)	MW-602	8.244	7.011	11/18/2021	7.27	No	12	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-801	7.689	7.053	11/18/2021	7.51	No	12	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-802	8.72	7.29	1/27/2022	7.46	No	12	0	n/a	0.004347	NP Intra (normality) ...
pH (S.U.)	MW-803	8.017	6.99	3/3/2022	7.43	No	12	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-804	7.464	6.911	11/18/2021	7.19	No	18	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-805	6.741	6.148	11/18/2021	6.44	No	18	0	No	0.000...	Param Intra 1 of 3
SULFATE (mg/l)	MW-10	33.85	n/a	11/18/2021	7.03	No	12	0	No	0.001075	Param Intra 1 of 3
SULFATE (mg/l)	MW-13	1975	n/a	11/18/2021	1710	No	14	0	No	0.001075	Param Intra 1 of 3
SULFATE (mg/l)	MW-14R	75.2	n/a	3/3/2022	60.4	No	14	0	No	0.001075	Param Intra 1 of 3
SULFATE (mg/l)	MW-15	249.9	n/a	11/18/2021	193	No	13	0	No	0.001075	Param Intra 1 of 3
SULFATE (mg/l)	MW-601	6.76	n/a	3/3/2022	6.58	No	16	62.5	n/a	0.001026	NP Intra (NDs) 1 of 3
SULFATE (mg/l)	MW-602	26.93	n/a	11/18/2021	25.9	No	12	0	No	0.001075	Param Intra 1 of 3
SULFATE (mg/l)	MW-801	5	n/a	11/18/2021	2.82	No	12	100	n/a	0.002173	NP Intra (NDs) 1 of 3
SULFATE (mg/l)	MW-802	5	n/a	11/18/2021	2.5ND	No	12	100	n/a	0.002173	NP Intra (NDs) 1 of 3
SULFATE (mg/l)	**MW-803**	**26.76**	**n/a**	**3/3/2022**	**27.4**	**Yes**	**12**	**0**	**No**	**0.001075**	**Param Intra 1 of 3**
SULFATE (mg/l)	MW-804	25.31	n/a	11/18/2021	24.6	No	14	0	No	0.001075	Param Intra 1 of 3
SULFATE (mg/l)	MW-805	873.3	n/a	11/18/2021	702	No	15	0	No	0.001075	Param Intra 1 of 3

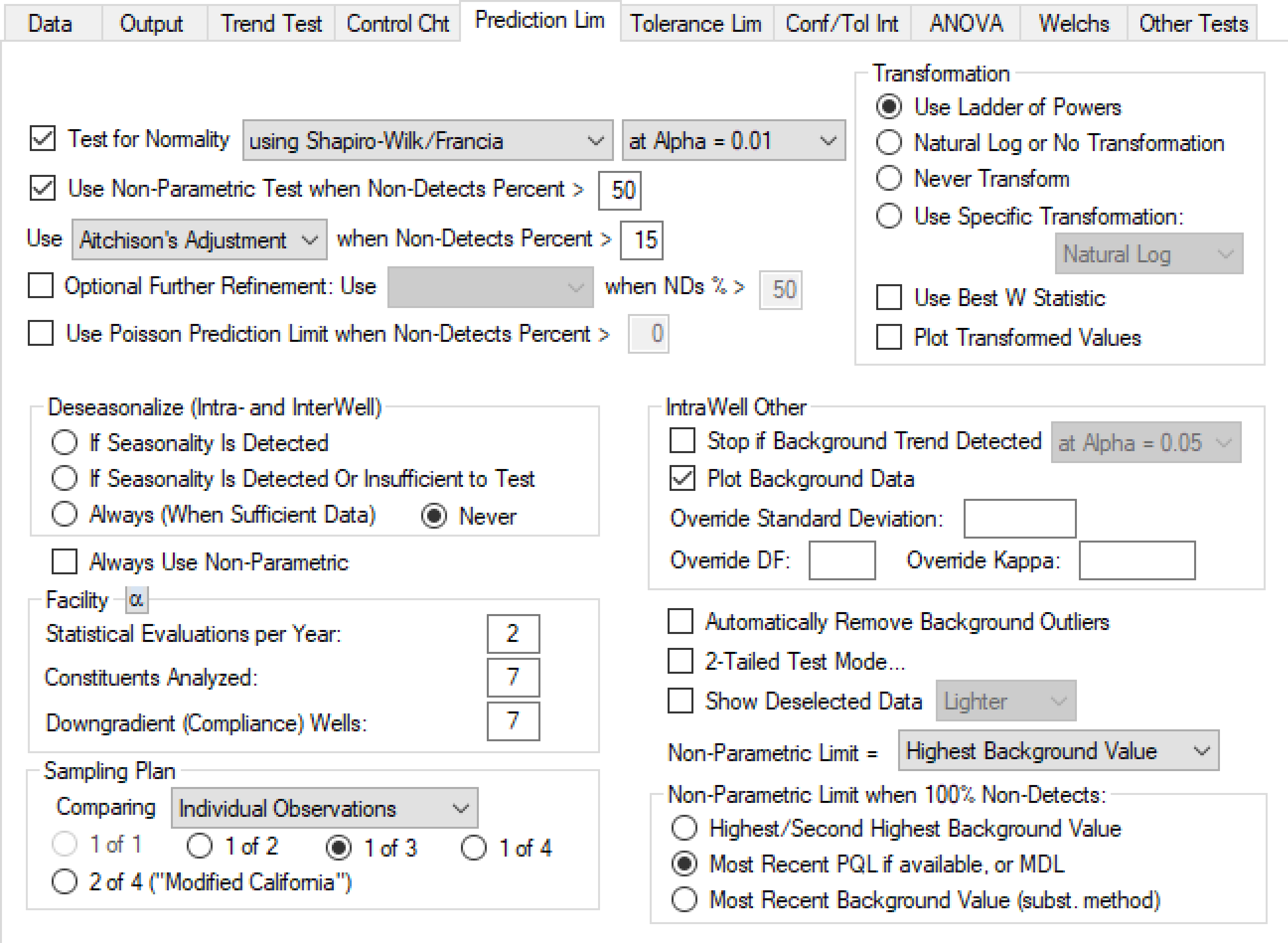
ATTACHMENT 2

Sanitas™ Configuration Settings

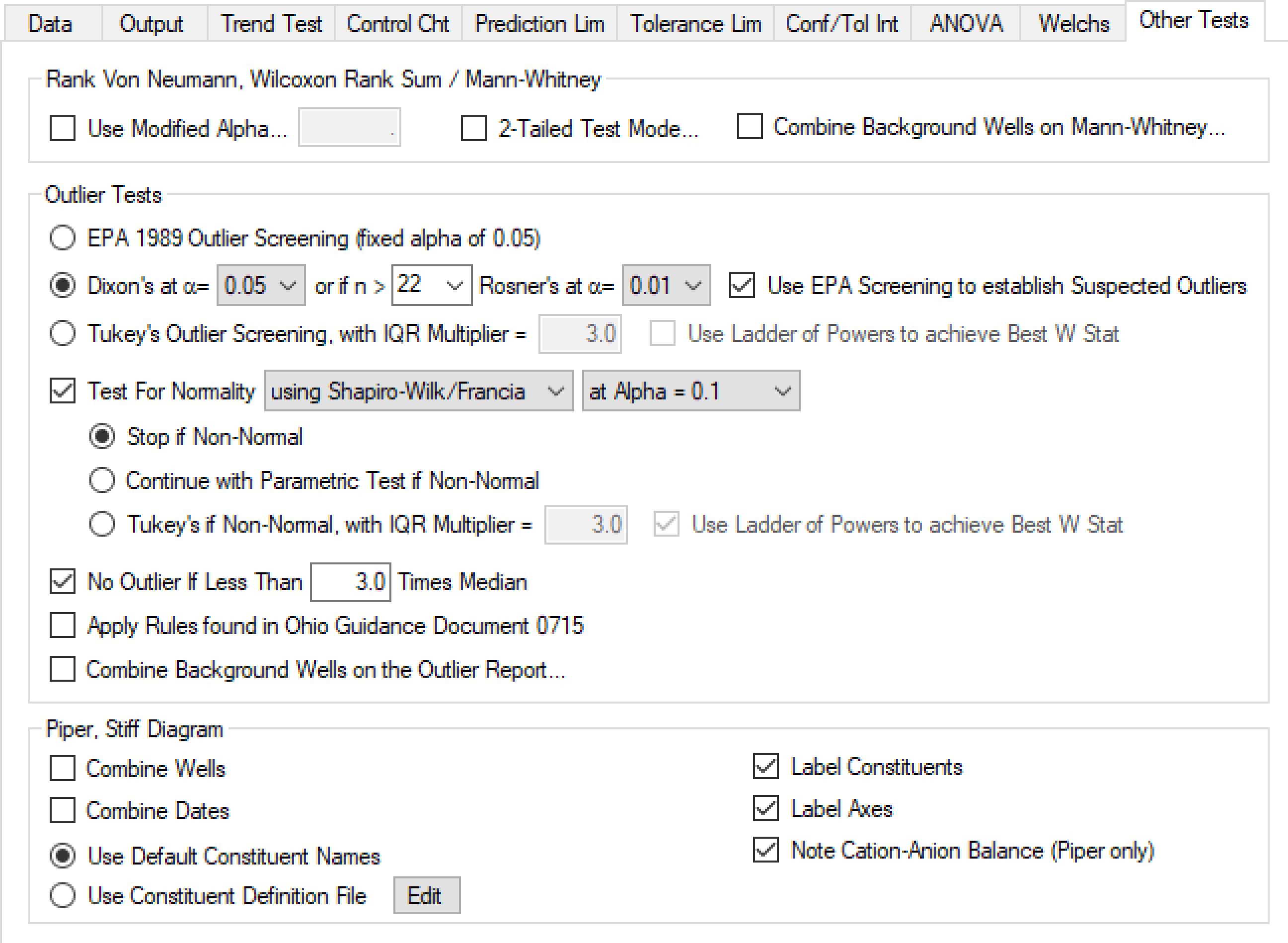

Data
Output
Trend Test
Control Cht
Prediction Lim
Tolerance Lim
Conf/Tol Int
ANOVA
Welchs
Other Tests
Exclude data flags:
i
Observations with flags containing the following characters will be deselected: 'i', 'I',
Data Reading Options
Individual Observations
Mean of Each:
Median of Each:
Month
Season
Non-Detect / Trace Handling...
Setup Seasons...
Automatically Process Resamples...


Data
Output
Trend Test
Control Cht
Prediction Lim
Tolerance Lim
Conf/Tol Int
ANOVA
Welchs
Other Tests
Black and White Output
Four Plots Per Page
Always Combine Data Pages...
Include Tick Marks on Data Page
Use Constituent Name for Graph Title
Draw Border Around Text Reports and Data Pages
Enlarge/Reduce Fonts (Graphs):
100%
Enlarge/Reduce Fonts (Data/Text Reports):
100%
Wide Margins (on reports without explicit setting)
Use CAS# (Not Const. Name)
Truncate File Names to
20
Characters
Include Limit Lines when found in Database...
Show Deselected Data on Time Series
Lighter
Show Deselected Data on all Data Pages
Lighter
Setup Symbols and Colors...
Prompt to Overwrite/Append Summary Tables
Round Limits to
2
Sig. Digits (when not set in data file)
User-Set Scale
Indicate Background Data
Show Exact Dates
Thick Plot Lines
Zoom Factor:
200%
Output Decimal Precision
Less Precision
Normal Precision
More Precision
Store Print Jobs in Multiple Constituent Mode
Store All Print Jobs...
Printer:
Adobe PDF
Printers...


Data
Output
Trend Test
Control Cht
Prediction Lim
Tolerance Lim
Conf/Tol Int
ANOVA
Welchs
Other Tests
Use Modified Alpha...
Test Residuals For Normality (Parametric test only)
using Shapiro-Wilk/Francia
at Alpha = 0.01
Continue Parametric if Unable to Normalize
Transformation (Parametric test only)
Use Ladder of Powers
Natural Log or No Transformation
Never Transform
Use Specific Transformation:
Use Best W Statistic
Plot Transformed Values
Use Non-Parametric Test (Sen's Slope/Mann-Kendall) when Non-Detects Percent >
75
Include
95.
% Confidence Interval around Trend Line
Automatically Remove Outliers (Parametric test only)
Note: there is no "Always Use Non-Parametric" checkbox on this tab because, for consistency with prior versions, Sen's Slope / Mann-Kendall (the non-parametric alternative) is available as a report in its own right, under Analysis->Intrawell->Trend.



Data
Output
Trend Test
Control Cht
Prediction Lim
Tolerance Lim
Conf/Tol Int
ANOVA
Welchs
Other Tests
Test for Normality
using Shapiro-Wilk/Francia
at Alpha = 0.01
Use Non-Parametric Test when Non-Detects Percent > 50
Use Aitchison's Adjustment when Non-Detects Percent > 15
Optional Further Refinement: Use
when NDs % > 50
Use Poisson Prediction Limit when Non-Detects Percent > 0
Transformation
Use Ladder of Powers
Natural Log or No Transformation
Never Transform
Use Specific Transformation:
Natural Log
Use Best W Statistic
Plot Transformed Values
Deseasonalize (Intra- and InterWell)
If Seasonality Is Detected
If Seasonality Is Detected Or Insufficient to Test
Always (When Sufficient Data)
Never
Always Use Non-Parametric
Facility
α
Statistical Evaluations per Year: 2
Constituents Analyzed: 7
Downgradient (Compliance) Wells: 7
Sampling Plan
Comparing
Individual Observations
1 of 1
1 of 2
1 of 3
1 of 4
2 of 4 ("Modified California")
IntraWell Other
Stop if Background Trend Detected
at Alpha = 0.05
Plot Background Data
Override Standard Deviation:
Override DF:
Override Kappa:
Automatically Remove Background Outliers
2-Tailed Test Mode...
Show Deselected Data
Lighter
Non-Parametric Limit =
Highest Background Value
Non-Parametric Limit when 100% Non-Detects:
Highest/Second Highest Background Value
Most Recent PQL if available, or MDL
Most Recent Background Value (subst. method)


Data
Output
Trend Test
Control Cht
Prediction Lim
Tolerance Lim
Conf/Tol Int
ANOVA
Welchs
Other Tests
Rank Von Neumann, Wilcoxon Rank Sum / Mann-Whitney
Use Modified Alpha...
2-Tailed Test Mode...
Combine Background Wells on Mann-Whitney...
Outlier Tests
EPA 1989 Outlier Screening (fixed alpha of 0.05)
Dixon's at α= 0.05 or if n > 22 Rosner's at α= 0.01
Use EPA Screening to establish Suspected Outliers
Tukey's Outlier Screening, with IQR Multiplier = 3.0
Use Ladder of Powers to achieve Best W Stat
Test For Normality using Shapiro-Wilk/Francia at Alpha = 0.1
Stop if Non-Normal
Continue with Parametric Test if Non-Normal
Tukey's if Non-Normal, with IQR Multiplier = 3.0
Use Ladder of Powers to achieve Best W Stat
No Outlier If Less Than 3.0 Times Median
Apply Rules found in Ohio Guidance Document 0715
Combine Background Wells on the Outlier Report...
Piper, Stiff Diagram
Combine Wells
Combine Dates
Use Default Constituent Names
Use Constituent Definition File
Edit
Label Constituents
Label Axes
Note Cation-Anion Balance (Piper only)

APPENDIX E.2

Spring 2022 Semiannual Detection Monitoring Statistical Analyses

MEMORANDUM

September 28, 2022

To: La Cygne Generating Station
25166 East 2200 Road
La Cygne, Kansas 66040
Evergy Metro, Inc.

From: SCS Engineers

RE: Determination of Statistically Significant Increases –
CCR Landfill and Lower AQC Impoundment
Spring 2022 Semiannual Detection Monitoring 40 CFR 257.94

Statistical analysis of monitoring data from the groundwater monitoring system for the CCR Landfill and Lower AQC Impoundment at the La Cygne Generating Station has been completed in substantial compliance with the “Statistical Method Certification by A Qualified Professional Engineer” dated October 12, 2017. Detection monitoring groundwater samples were collected on May 9, 2022. Review and validation of the results from the May 2022 Detection Monitoring Event was completed on July 1, 2022, which constitutes completion and finalization of detection monitoring laboratory analyses. A statistical analysis was then conducted to determine whether there was a statistically significant increase (SSI) over background values for each constituent listed in Appendix III to Part 257-Constituents for Detection Monitoring. Two rounds of verification sampling were conducted for certain constituents on July 15 and 19, 2022 and August 17, 2022.

The completed statistical evaluation identified one Appendix III constituent above its prediction limit established for monitoring well MW-13 and two Appendix III constituents above their prediction limits established for monitoring well MW-803.

Monitoring Well Constituent	*UPL	Observation May 9, 2021	1st Verification July 15 or 19, 2022	2nd Verification August 17, 2022
MW-13				
Chloride	19.61	48.3	52.8	53.8
MW-803				
Chloride	50.6	51.1	51.2	51.5
Sulfate	28.84	32.1	31.6	32.8

*UPL – Upper Prediction Limit

Determination: A statistical evaluation was completed for all Appendix III detection monitoring constituents in accordance with the certified statistical method. The statistical evaluation identified SSIs above the background prediction limit for chloride at MW-13 and for chloride and sulfate at MW-803.

Attached to this memorandum are the following backup information:

Attachment 1: Sanitas™ Output:

Statistical evaluation output from Sanitas™ for the prediction limit analysis. This includes prediction limit plots, prediction limit background data, detection sample results, 1st verification re-sample results (when applicable), 2nd verification re-sample results (when applicable), extra sample results for pH because pH is collected as part of the sampling procedure, and a Prediction Limit summary table. Output documentation includes the analytical data used for the statistical analyses.

Attachment 2: Sanitas™ Configuration Settings:

Screen shots of the applicable Sanitas™ configuration settings for the statistical prediction limit analysis. This includes data configuration, output configuration, prediction limit configuration and other tests configuration.

Revision Number	**Revision Date**	**Attachment Revised**	**Summary of Revisions**

ATTACHMENT 1

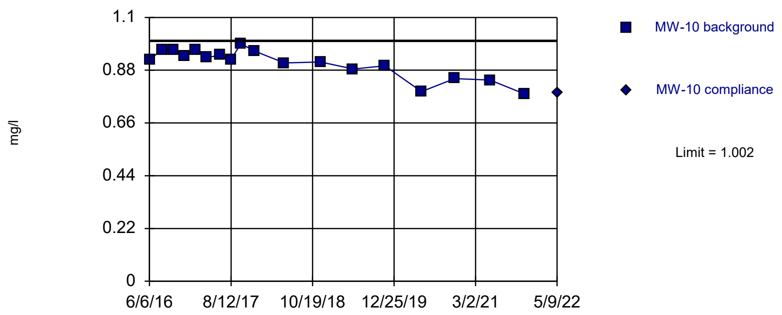
Sanitas™ Output

Sanitas™ v.9.6.35 Sanitas software licensed to SCS Engineers. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.9094, Std. Dev.=0.06036, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.906, critical = 0.858. Kappa = 1.541 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

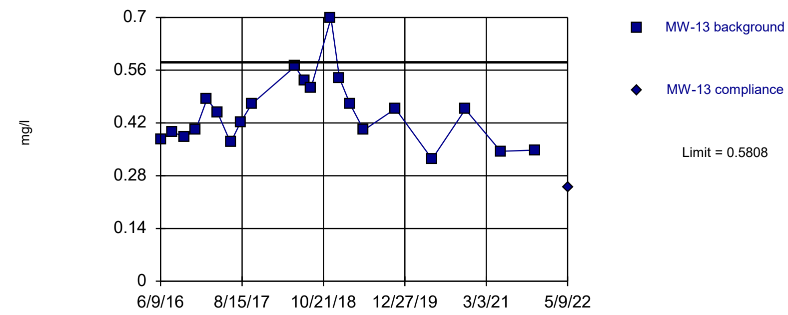
Constituent: BORON Analysis Run 9/9/2022 8:24 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Sanitas™ v.9.6.35 Sanitas software licensed to SCS Engineers. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.4478, Std. Dev.=0.08921, n=21. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9315, critical = 0.873. Kappa = 1.491 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

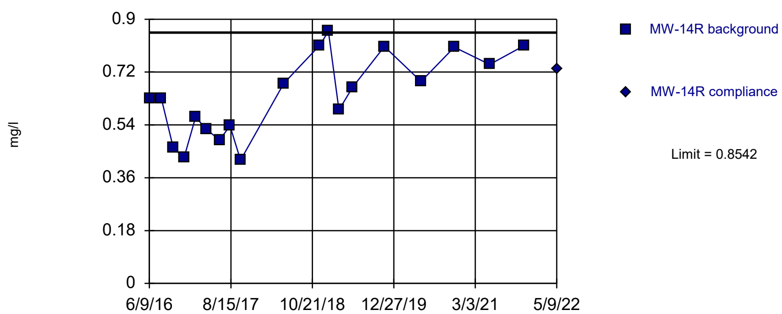
Constituent: BORON Analysis Run 9/9/2022 8:24 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Sanitas™ v.9.6.35 Sanitas software licensed to SCS Engineers. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.6397, Std. Dev.=0.141, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9425, critical = 0.863. Kappa = 1.522 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 9/9/2022 8:24 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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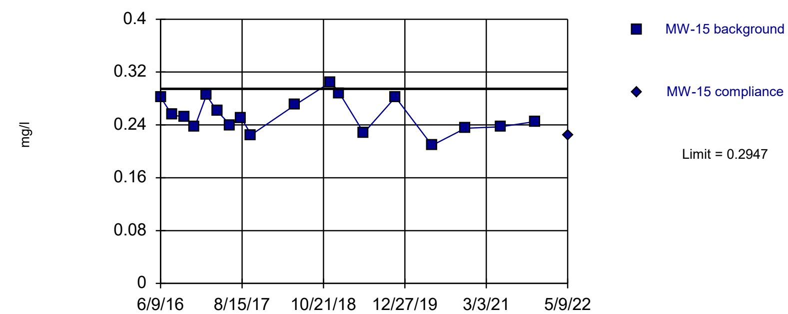
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.2548, Std. Dev.=0.02584, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9684, critical = 0.858. Kappa = 1.541 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 9/9/2022 8:24 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: BORON Analysis Run 9/9/2022 8:53 AM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-10	MW-10	MW-13	MW-13	MW-14R	MW-14R	MW-15	MW-15
6/6/2016	0.923							
6/9/2016			0.375		0.629		0.282	
8/9/2016							0.255	
8/11/2016	0.966		0.397		0.63			
10/12/2016	0.964						0.252	
10/13/2016			0.381		0.463			
12/7/2016							0.237	
12/9/2016	0.94				0.427			
12/13/2016			0.403					
2/7/2017							0.285	
2/8/2017	0.966							
2/9/2017					0.566			
2/10/2017			0.483					
4/5/2017							0.261	
4/6/2017	0.933		0.449					
4/7/2017					0.526			
6/14/2017							0.24	
6/15/2017	0.942		0.368		0.488			
8/8/2017			0.422					
8/10/2017	0.921				0.537		0.251	
10/3/2017							0.225	
10/4/2017	0.991							
10/5/2017			0.47		0.42			
12/12/2017	0.961							
5/23/2018	0.91		0.57		0.682		0.27	
7/11/2018			0.533					
8/16/2018			0.513					
11/30/2018	0.914		0.698		0.812		0.305	
1/14/2019			0.539		0.859		0.288	
3/11/2019			0.47		0.591			
5/23/2019	0.885		0.401		0.669		0.228	
11/7/2019	0.898		0.458		0.807		0.282	
5/19/2020	0.791		0.324		0.688		0.209	
11/12/2020	0.845		0.456		0.805		0.235	
5/18/2021	0.839		0.345		0.746		0.237	
11/18/2021	0.781		0.348		0.81		0.245	
5/9/2022		0.787		0.25		0.73		0.225

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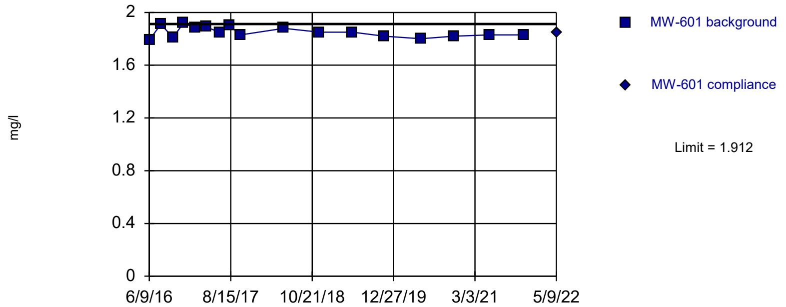
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.851, Std. Dev.=0.0396, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9478, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 9/9/2022 8:24 AM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

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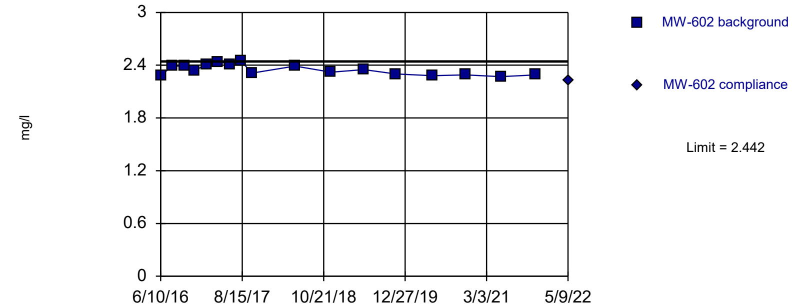
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2.348, Std. Dev.=0.06047, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9102, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 9/9/2022 8:24 AM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

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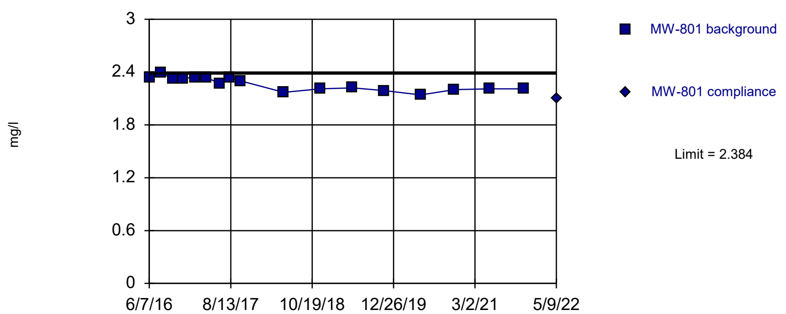
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2.266, Std. Dev.=0.07592, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9104, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 9/9/2022 8:24 AM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

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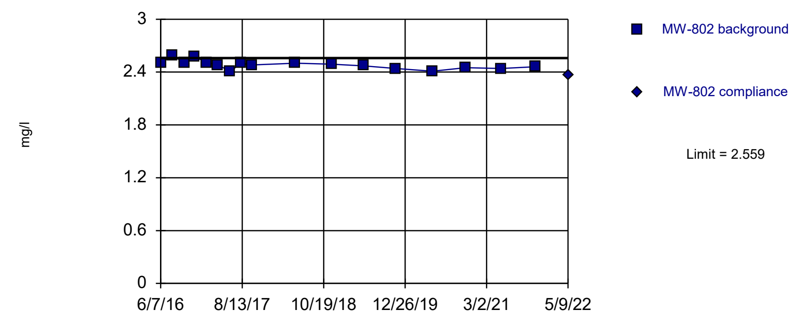
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2.483, Std. Dev.=0.04845, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.942, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 9/9/2022 8:24 AM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: BORON   Analysis Run 9/9/2022 8:53 AM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-601	MW-601	MW-602	MW-602	MW-801	MW-801	MW-802	MW-802
6/7/2016					2.34		2.51	
6/9/2016	1.79							
6/10/2016			2.28					
8/9/2016	1.91		2.39		2.39			
8/10/2016							2.59	
10/11/2016					2.32		2.5	
10/13/2016	1.81		2.39					
12/6/2016					2.33		2.57	
12/7/2016	1.92							
12/9/2016			2.34					
2/7/2017					2.34		2.51	
2/8/2017	1.88		2.41					
4/4/2017							2.48	
4/6/2017	1.89				2.34			
4/7/2017			2.44					
6/13/2017							2.41	
6/14/2017					2.27			
6/15/2017	1.85		2.41					
8/7/2017							2.5	
8/9/2017	1.9				2.34			
8/10/2017			2.45					
10/4/2017					2.3		2.48	
10/5/2017			2.31					
10/6/2017	1.83							
5/23/2018	1.88		2.39		2.17		2.5	
11/30/2018	1.85		2.32		2.21		2.49	
5/23/2019	1.85		2.35		2.22		2.47	
11/7/2019	1.82		2.3		2.19		2.44	
5/19/2020	1.8		2.28		2.14		2.41	
11/12/2020	1.82		2.29		2.2		2.45	
5/18/2021	1.83		2.27		2.21		2.44	
11/18/2021	1.83		2.29		2.21		2.46	
5/9/2022		1.85		2.22		2.1		2.36

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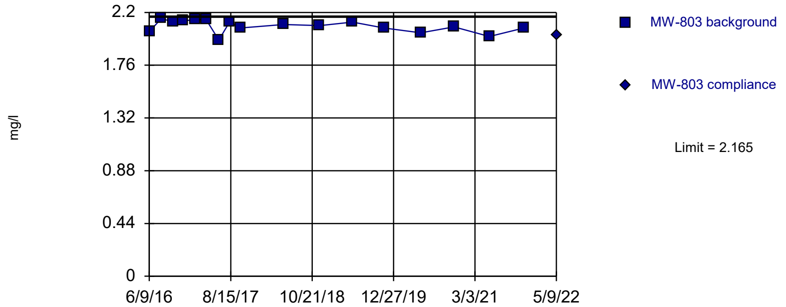
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2.085, Std. Dev.=0.05149, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9296, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 9/9/2022 8:24 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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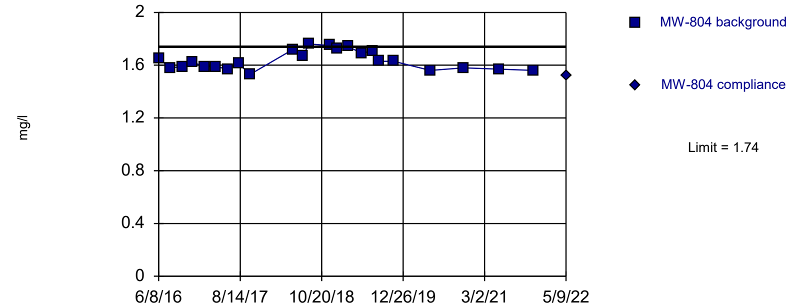
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.636, Std. Dev.=0.07069, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9167, critical = 0.881. Kappa = 1.47 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 9/9/2022 8:25 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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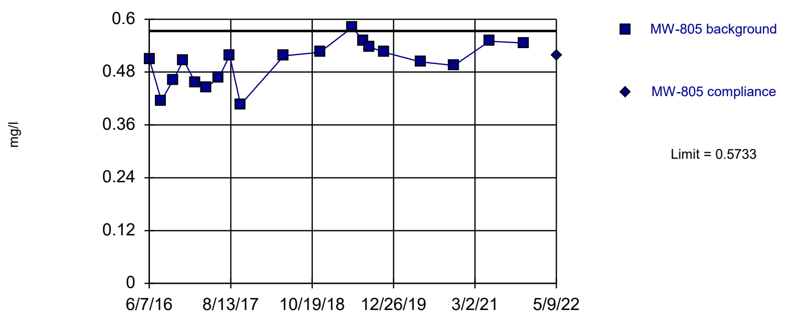
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.5008, Std. Dev.=0.04763, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.955, critical = 0.863. Kappa = 1.522 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 9/9/2022 8:25 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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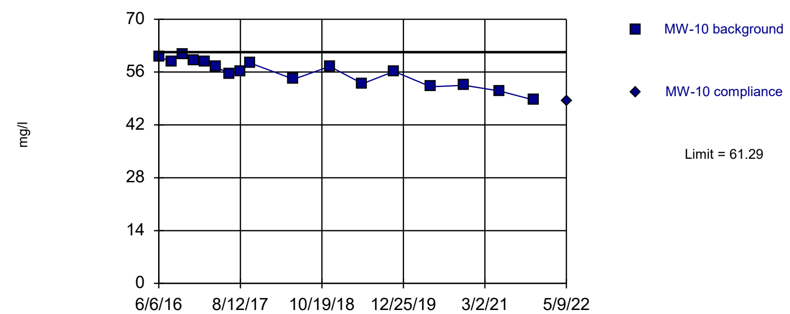
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=55.86, Std. Dev.=3.477, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9489, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 9/9/2022 8:25 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: BORON, CALCIUM   Analysis Run 9/9/2022 8:53 AM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-803	MW-803	MW-804	MW-804	MW-805	MW-805	MW-10	MW-10
6/6/2016							60.1	
6/7/2016					0.51			
6/8/2016			1.65					
6/9/2016	2.04							
8/10/2016			1.58		0.415			
8/11/2016							58.7	
8/12/2016	2.15							
10/11/2016			1.59		0.462			
10/12/2016							60.7	
10/13/2016	2.12							
12/6/2016	2.13				0.507			
12/7/2016			1.62					
12/9/2016							59	
2/6/2017					0.456			
2/7/2017			1.59					
2/8/2017	2.14						58.8	
4/4/2017			1.59		0.444			
4/6/2017							57.4	
4/7/2017	2.14							
6/13/2017	1.97		1.57		0.468			
6/15/2017							55.5	
8/8/2017			1.61		0.518			
8/9/2017	2.12							
8/10/2017							56.1	
10/4/2017	2.07						58.4	
10/5/2017			1.53		0.406			
5/23/2018	2.1		1.72		0.517		54.1	
7/11/2018			1.67					
8/16/2018			1.76					
11/30/2018	2.09		1.75		0.525		57.5	
1/14/2019			1.73					
3/11/2019			1.74					
5/23/2019	2.12		1.69		0.582		52.9	
7/17/2019			1.71		0.55			
8/22/2019			1.63		0.537			
11/7/2019	2.07		1.63		0.525		56.2	
5/19/2020	2.03		1.56		0.503		52.1	
11/12/2020	2.08		1.58		0.495		52.5	
5/18/2021	2		1.57		0.55		51	
11/18/2021	2.07		1.56		0.546		48.6	
5/9/2022		2.01		1.52		0.519		48.3

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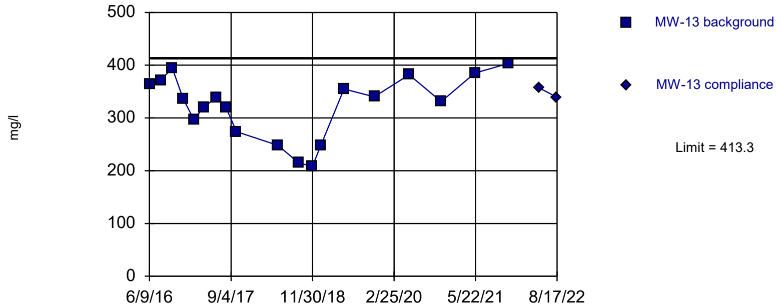
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=322.5, Std. Dev.=59.62, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9291, critical = 0.863. Kappa = 1.522 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 9/9/2022 8:25 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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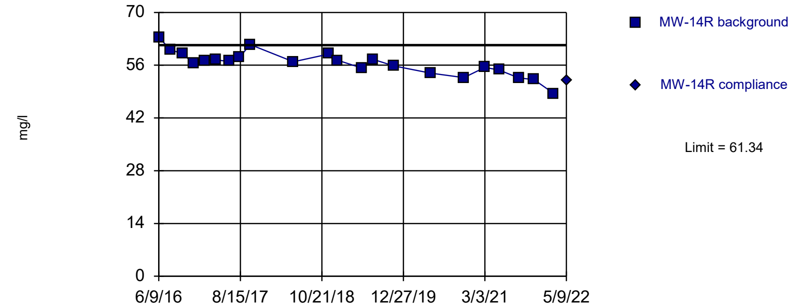
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=56.45, Std. Dev.=3.305, n=22. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9805, critical = 0.878. Kappa = 1.48 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 9/9/2022 8:25 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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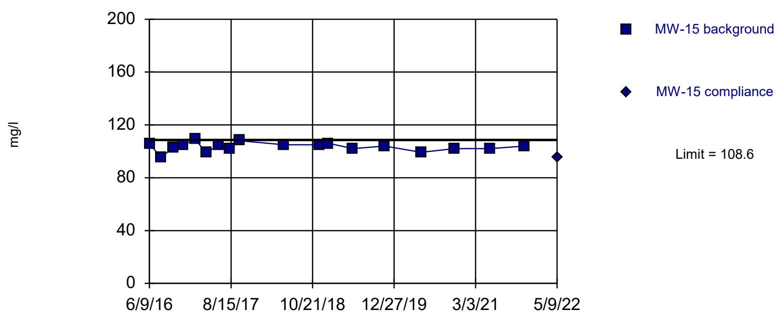
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=103.4, Std. Dev.=3.337, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9499, critical = 0.858. Kappa = 1.541 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 9/9/2022 8:25 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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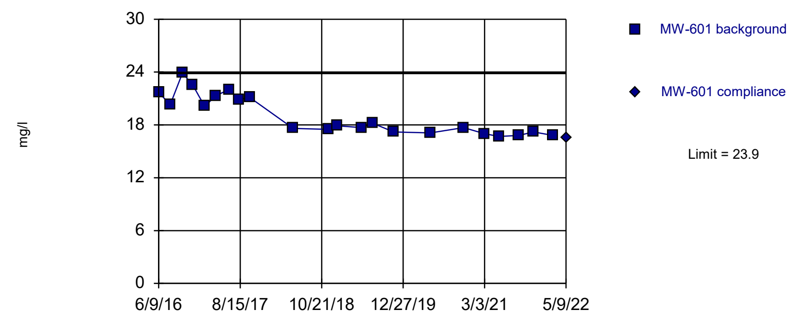
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 22 background values. Well-constituent pair annual alpha = 0.0009186. Individual comparison alpha = 0.0004594 (1 of 3).

Constituent: CALCIUM Analysis Run 9/9/2022 8:25 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: CALCIUM   Analysis Run 9/9/2022 8:53 AM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-13	MW-13	MW-14R	MW-14R	MW-15	MW-15	MW-601	MW-601
6/9/2016	363		63.4		106		21.7	
8/9/2016					95.2		20.3	
8/11/2016	371		60					
10/12/2016					103			
10/13/2016	395		59.1				23.9	
12/7/2016					105		22.5	
12/9/2016			56.4					
12/13/2016	336							
2/7/2017					109			
2/8/2017							20.1	
2/9/2017			57.3					
2/10/2017	297							
4/5/2017					98.9			
4/6/2017	320						21.3	
4/7/2017			57.4					
6/14/2017					105			
6/15/2017	339		57				22	
8/8/2017	319							
8/9/2017							20.9	
8/10/2017			58		102			
10/3/2017					108			
10/5/2017	274		61.5					
10/6/2017							21.1	
5/23/2018	248		56.9		105		17.6	
9/17/2018	214							
11/30/2018	209		59		105		17.5	
1/14/2019	247		57.3		106		17.9	
5/23/2019	355		55.2		102		17.7	
7/17/2019			57.6				18.2	
11/7/2019	340		55.8		104		17.2	
5/19/2020	382		53.9		99.3		17.1	
11/12/2020	331		52.7		102		17.7	
3/3/2021			55.4				17	
5/18/2021	385		54.7		102		16.7	
8/30/2021			52.6				16.8	
11/18/2021	403		52.2		104		17.2	
3/3/2022			48.5				16.8	
5/9/2022		357		52		95.6		16.6
8/17/2022		339 Extra Sample						

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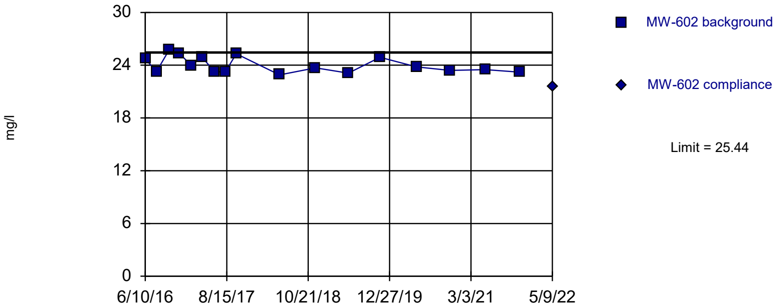
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=24.01, Std. Dev.=0.9151, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8811, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 9/9/2022 8:25 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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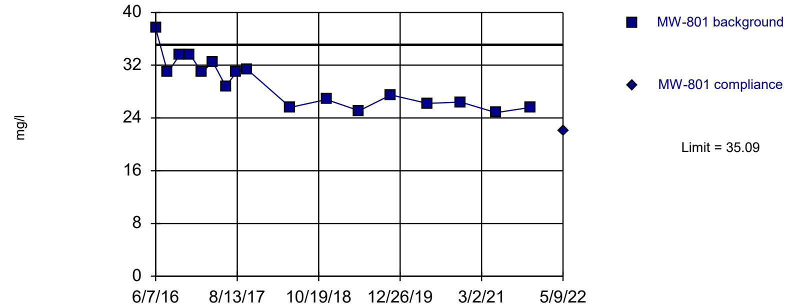
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=29.3, Std. Dev.=3.711, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9189, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 9/9/2022 8:25 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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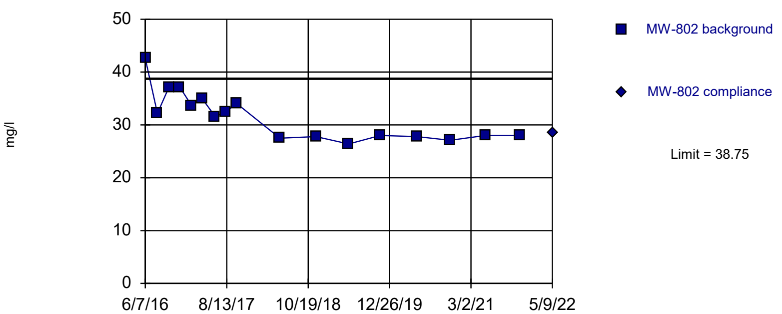
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=31.56, Std. Dev.=4.601, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8846, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 9/9/2022 8:25 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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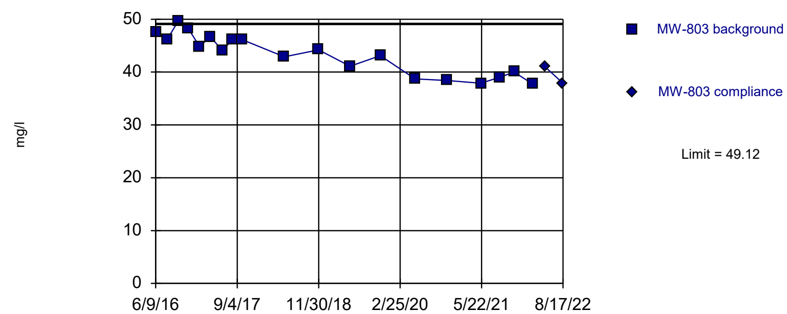
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=43.29, Std. Dev.=3.829, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9348, critical = 0.863. Kappa = 1.522 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 9/9/2022 8:25 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: CALCIUM   Analysis Run 9/9/2022 8:53 AM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-602	MW-602	MW-801	MW-801	MW-802	MW-802	MW-803	MW-803
6/7/2016			37.6		42.6			
6/9/2016							47.6	
6/10/2016	24.7							
8/9/2016	23.3		30.9					
8/10/2016					32.2			
8/12/2016							46.2	
10/11/2016			33.5		37.2			
10/13/2016	25.7						49.7	
12/6/2016			33.6		37.2		48.3	
12/9/2016	25.3							
2/7/2017			30.9		33.7			
2/8/2017	24						44.8	
4/4/2017					35			
4/6/2017			32.5					
4/7/2017	24.9						46.7	
6/13/2017					31.6		44.1	
6/14/2017			28.8					
6/15/2017	23.2							
8/7/2017					32.4			
8/9/2017			30.9				46.1	
8/10/2017	23.3							
10/4/2017			31.4		34.1		46.1	
10/5/2017	25.3							
5/23/2018	22.9		25.6		27.5		42.9	
11/30/2018	23.7		26.8		27.8		44.2	
5/23/2019	23.1		25.1		26.4		41.1	
11/7/2019	24.9		27.5		28		43.1	
5/19/2020	23.8		26.2		27.8		38.7	
11/12/2020	23.4		26.4		27.1		38.4	
5/18/2021	23.5		24.8		28		37.9	
8/30/2021							39	
11/18/2021	23.2		25.6		28		40	
3/3/2022							37.7	
5/9/2022		21.6		22.1		28.4		41
8/17/2022								37.9 Extra Sample

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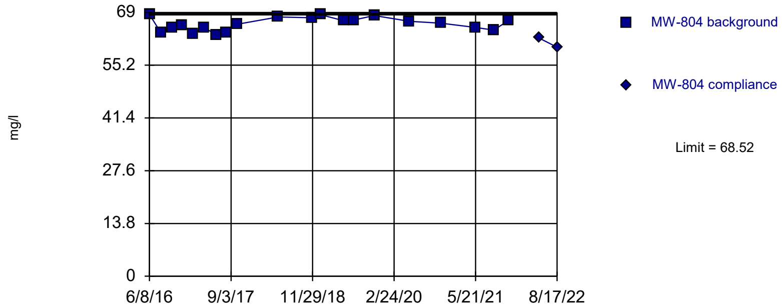
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=65.98, Std. Dev.=1.698, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9475, critical = 0.868. Kappa = 1.502 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 9/9/2022 8:25 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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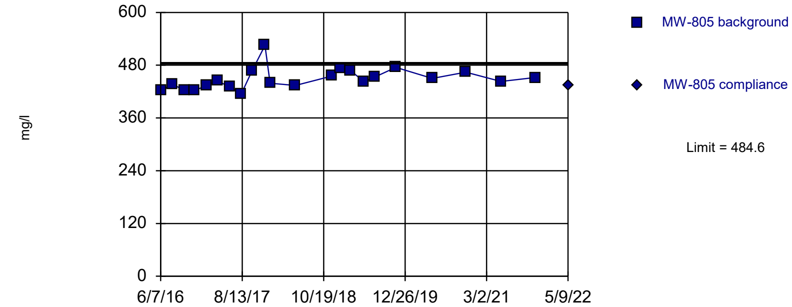
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=448.5, Std. Dev.=24.44, n=22. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9003, critical = 0.878. Kappa = 1.48 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 9/9/2022 8:25 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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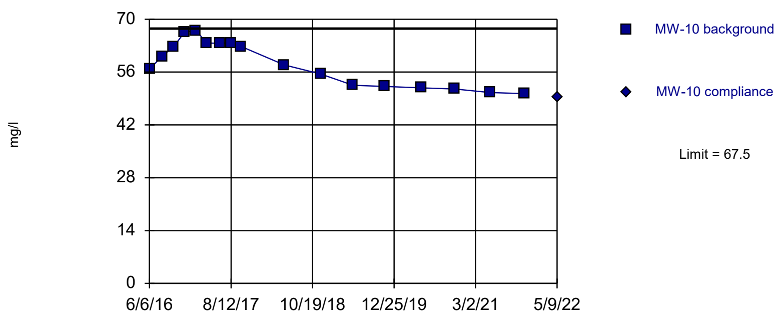
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=58.2, Std. Dev.=5.96, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8948, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 9/9/2022 8:25 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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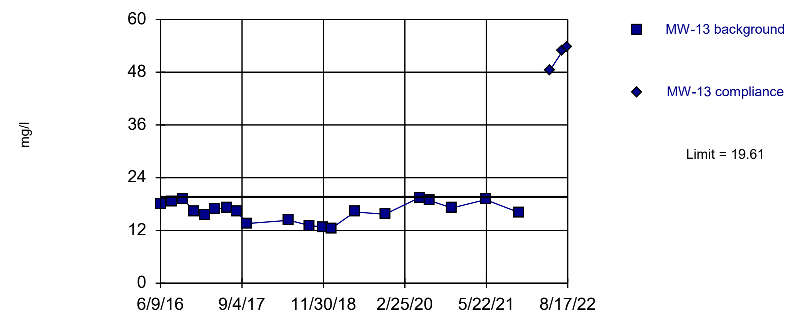
Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=16.33, Std. Dev.=2.185, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9421, critical = 0.868. Kappa = 1.502 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 9/9/2022 8:25 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: CALCIUM, CHLORIDE   Analysis Run 9/9/2022 8:53 AM   View: LF LAQC III

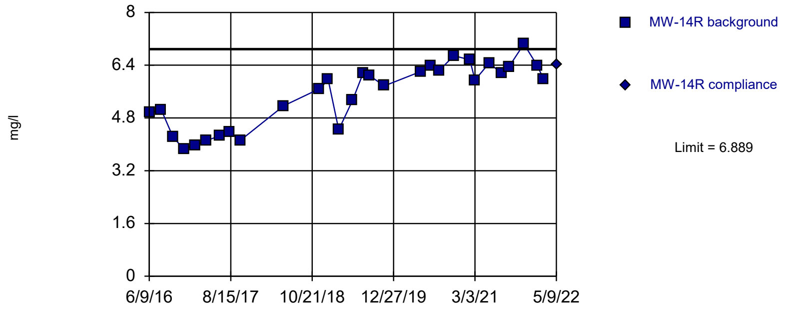
LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-804	MW-804	MW-805	MW-805	MW-10	MW-10	MW-13	MW-13
6/6/2016					56.7			
6/7/2016			422					
6/8/2016	68.5							
6/9/2016							18	
8/10/2016	63.7		437					
8/11/2016					60.2		18.5	
10/11/2016	65.1		422					
10/12/2016					62.7			
10/13/2016							19.2	
12/6/2016			422					
12/7/2016	65.7							
12/9/2016					66.6			
12/13/2016							16.4	
2/6/2017			435					
2/7/2017	63.5							
2/8/2017					67			
2/10/2017							15.6	
4/4/2017	65.1		444					
4/6/2017					63.7		16.8	
6/13/2017	63.2		430					
6/15/2017					63.6		17.2	
8/8/2017	63.8		414				16.2	
8/10/2017					63.8			
10/4/2017					62.8			
10/5/2017	65.9		467				13.6	
12/12/2017			525					
1/9/2018			439					
5/23/2018	67.8		434		57.9		14.3	
9/17/2018							13.1	
11/30/2018	67.6		455		55.5		12.8	
1/14/2019	68.4		473				12.5	
3/11/2019			468					
5/23/2019	66.8		442		52.5		16.2	
7/17/2019	67		453					
11/7/2019	68.2		475		52.2		15.7	
5/19/2020	66.7		450		51.8		19.5	
7/13/2020							18.8	
11/12/2020	66.2		464		51.5		17.1	
5/18/2021	65.1		443		50.6		19	
8/30/2021	64.4							
11/18/2021	66.8		452		50.3		16.1	
5/9/2022		62.3		433		49.2		48.3
7/19/2022								52.8 1st Verification
8/17/2022		59.9 Extra Sample						53.8 2nd Verification

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.514, Std. Dev.=0.9668, n=29. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9001, critical = 0.898. Kappa = 1.422 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 9/9/2022 8:25 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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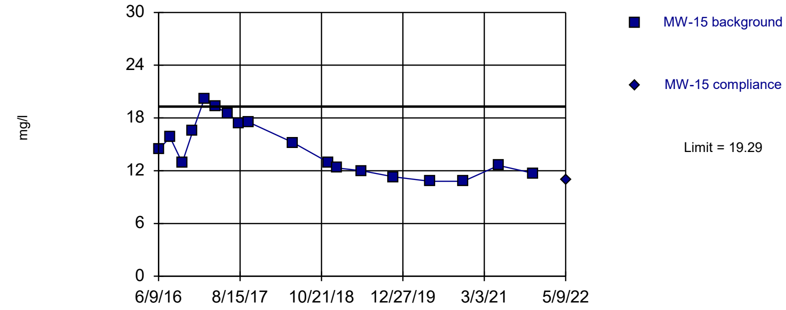
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=14.56, Std. Dev.=3.071, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9188, critical = 0.858. Kappa = 1.541 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 9/9/2022 8:25 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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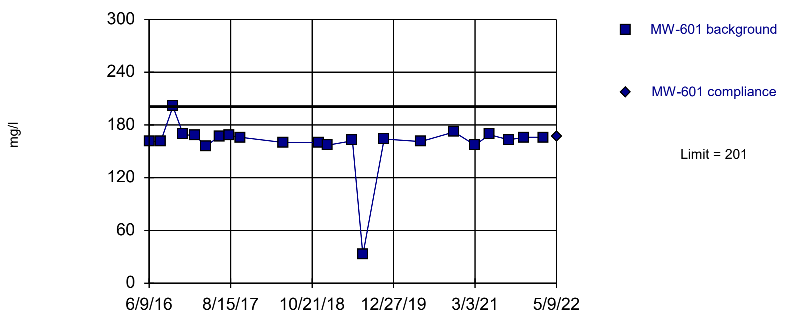
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 22 background values. Well-constituent pair annual alpha = 0.0009186. Individual comparison alpha = 0.0004594 (1 of 3).

Constituent: CHLORIDE Analysis Run 9/9/2022 8:25 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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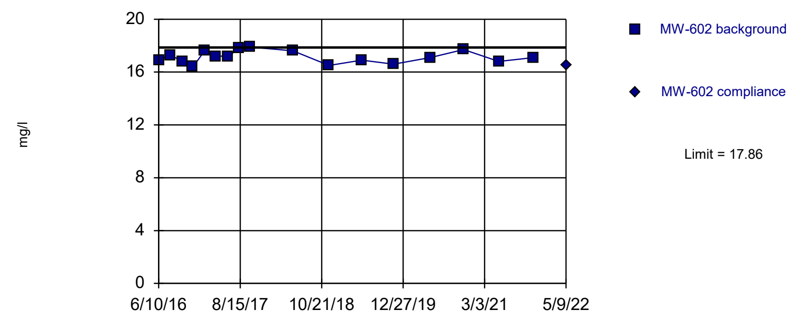
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=17.14, Std. Dev.=0.4597, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.959, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 9/9/2022 8:25 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: CHLORIDE   Analysis Run 9/9/2022 8:53 AM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-14R	MW-14R	MW-15	MW-15	MW-601	MW-601	MW-602	MW-602
6/9/2016	4.95		14.4		161			
6/10/2016							16.9	
8/9/2016			15.8		161		17.3	
8/11/2016	5.05							
10/12/2016			12.9					
10/13/2016	4.22				201		16.8	
12/7/2016			16.5		169			
12/9/2016	3.86						16.4	
2/7/2017			20.2					
2/8/2017					168		17.6	
2/9/2017	3.98							
4/5/2017			19.3					
4/6/2017					156			
4/7/2017	4.11						17.2	
6/14/2017			18.5					
6/15/2017	4.25				167		17.2	
8/9/2017					168			
8/10/2017	4.38		17.4				17.8	
10/3/2017			17.5					
10/5/2017	4.12						17.9	
10/6/2017					166			
5/23/2018	5.17		15.2		160		17.6	
11/30/2018	5.69		12.9		160		16.5	
1/14/2019	5.96		12.3		157			
3/11/2019	4.44							
5/23/2019	5.33		12		162		16.9	
7/17/2019	6.14				32.3			
8/23/2019	6.08							
11/7/2019	5.77		11.3		164		16.6	
5/19/2020	6.21		10.8		161		17.1	
7/13/2020	6.38							
8/27/2020	6.25							
11/12/2020	6.69		10.8		172		17.7	
2/4/2021	6.56							
3/3/2021	5.95				157			
5/18/2021	6.47		12.6		169		16.8	
7/21/2021	6.15							
8/30/2021	6.35				163			
11/18/2021	7.04		11.7		166		17.1	
1/27/2022	6.39							
3/3/2022	5.97				166			
5/9/2022		6.43		10.9		167		16.5

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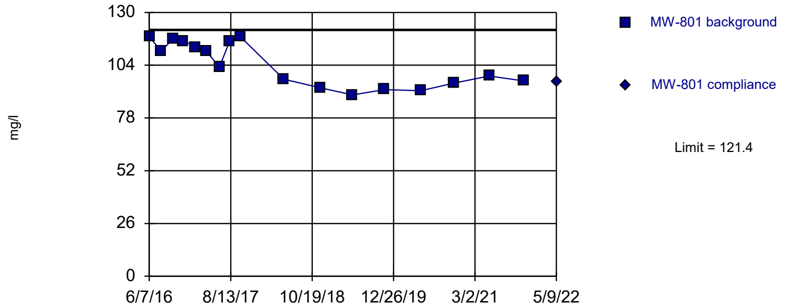
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=104.5, Std. Dev.=10.84, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8663, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 9/9/2022 8:25 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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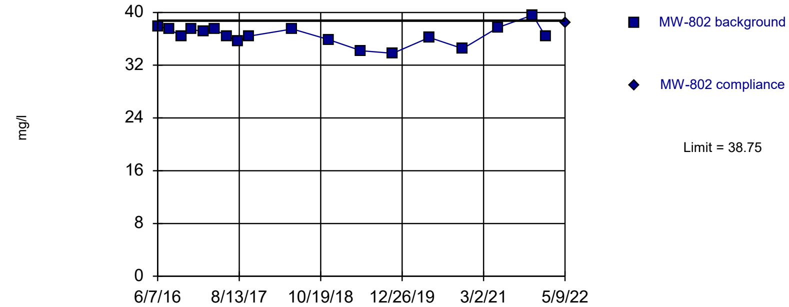
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=36.54, Std. Dev.=1.433, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9535, critical = 0.858. Kappa = 1.541 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 9/9/2022 8:25 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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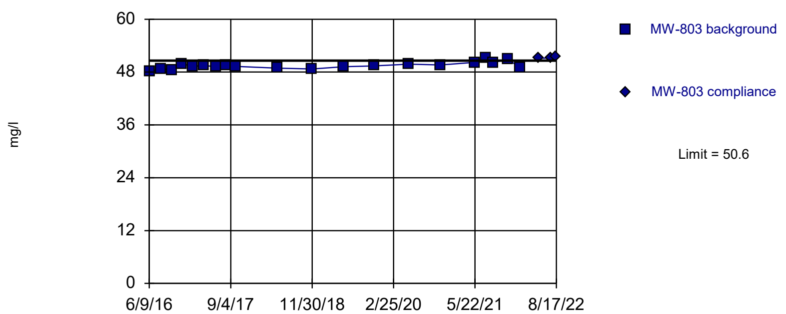
Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=49.45, Std. Dev.=0.7626, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9605, critical = 0.868. Kappa = 1.502 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 9/9/2022 8:25 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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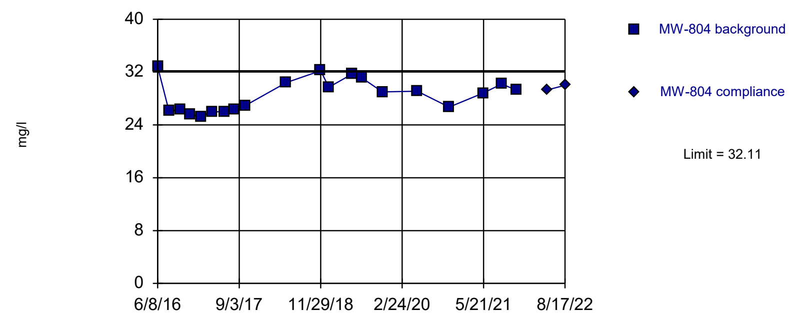
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=28.47, Std. Dev.=2.422, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9151, critical = 0.868. Kappa = 1.502 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 9/9/2022 8:25 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: CHLORIDE Analysis Run 9/9/2022 8:53 AM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-801	MW-801	MW-802	MW-802	MW-803	MW-803	MW-804	MW-804
6/7/2016	118		37.9					
6/8/2016							32.8	
6/9/2016					48.1			
8/9/2016	111							
8/10/2016			37.5				26.1	
8/12/2016					48.8			
10/11/2016	117		36.3				26.3	
10/13/2016					48.4			
12/6/2016	116		37.4		49.9			
12/7/2016							25.5	
2/7/2017	113		37.1				25.3	
2/8/2017					49.3			
4/4/2017			37.4				26	
4/6/2017	111							
4/7/2017					49.5			
6/13/2017			36.4		49.2		26	
6/14/2017	103							
8/7/2017			35.6					
8/8/2017							26.3	
8/9/2017	116				49.5			
10/4/2017	118		36.4		49.3			
10/5/2017							26.9	
5/23/2018	97.1		37.5		48.9		30.4	
11/30/2018	92.9		35.9		48.7		32.2	
1/14/2019							29.7	
5/23/2019	89.4		34.2		49.2		31.7	
7/17/2019							31.1	
11/7/2019	92		33.8		49.4		29	
5/19/2020	91.4		36.2		49.8		29.1	
11/12/2020	95.2		34.5		49.6		26.7	
5/18/2021	98.7		37.7		50.2		28.8	
7/21/2021					51.1			
8/30/2021					50.1		30.2	
11/18/2021	96.2		39.6		51		29.3	
1/27/2022			36.3		49			
5/9/2022		95.7		38.5		51.1		29.3
7/15/2022						51.2 1st Verification		
8/17/2022						51.5 2nd Verification		30 Extra Sample

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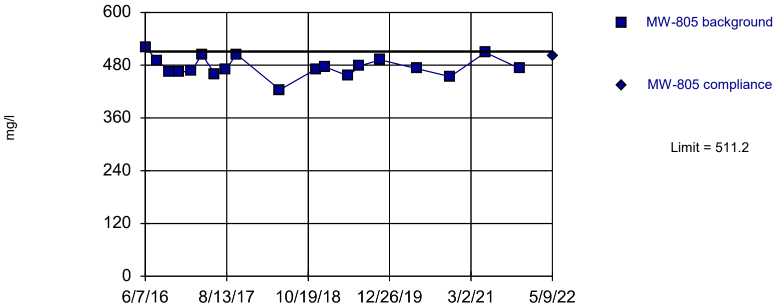
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=476.3, Std. Dev.=22.94, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9582, critical = 0.863. Kappa = 1.522 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 9/9/2022 8:25 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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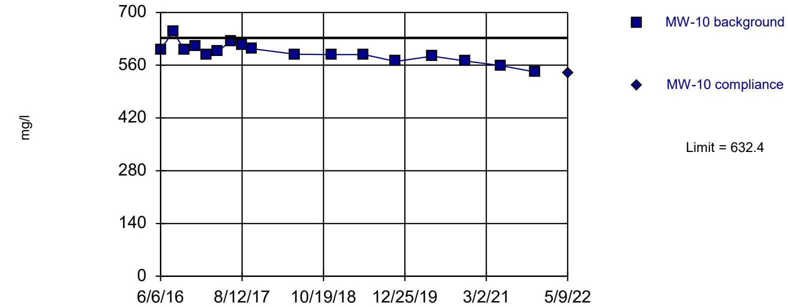
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=592.9, Std. Dev.=25.25, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9822, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: DISSOLVED SOLIDS Analysis Run 9/9/2022 8:25 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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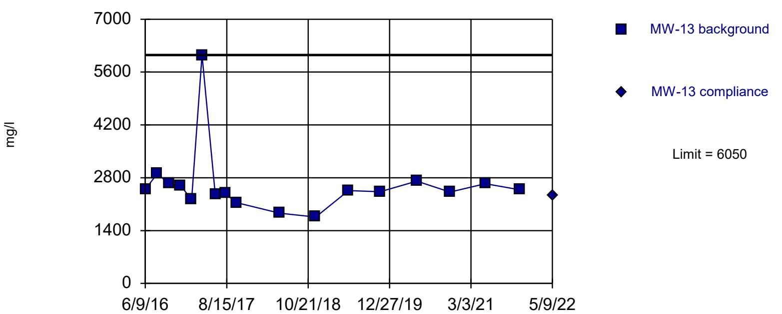
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 17 background values. Well-constituent pair annual alpha = 0.00182. Individual comparison alpha = 0.0009102 (1 of 3).

Constituent: DISSOLVED SOLIDS Analysis Run 9/9/2022 8:25 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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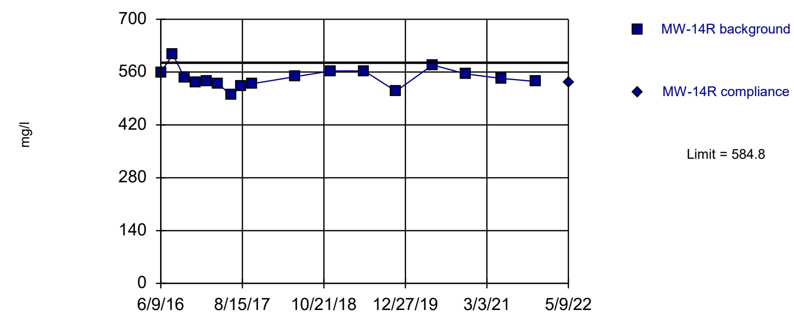
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=544.4, Std. Dev.=25.91, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9706, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: DISSOLVED SOLIDS Analysis Run 9/9/2022 8:25 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: CHLORIDE, DISSOLVED SOLIDS   Analysis Run 9/9/2022 8:53 AM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-805	MW-805	MW-10	MW-10	MW-13	MW-13	MW-14R	MW-14R
6/6/2016			601					
6/7/2016	520							
6/9/2016					2490		559	
8/10/2016	491							
8/11/2016			649		2910		607	
10/11/2016	466							
10/12/2016			600					
10/13/2016					2640		545	
12/6/2016	464							
12/9/2016			612				533	
12/13/2016					2590			
2/6/2017	467							
2/8/2017			587					
2/9/2017							536	
2/10/2017					2220			
4/4/2017	504							
4/6/2017			596		6050			
4/7/2017							530	
6/13/2017	459							
6/15/2017			625		2350		499	
8/8/2017	470				2380			
8/10/2017			615				521	
10/4/2017			604					
10/5/2017	505				2140		529	
5/23/2018	424		589		1860		548	
11/30/2018	471		588		1760		563	
1/14/2019	477							
5/23/2019	455		588		2460		563	
7/17/2019	478							
11/7/2019	492		570		2430		509	
5/19/2020	472		584		2710		579	
11/12/2020	454		571		2420		555	
5/18/2021	509		559		2640		543	
11/18/2021	472		542		2480		535	
5/9/2022		501		540		2330		532

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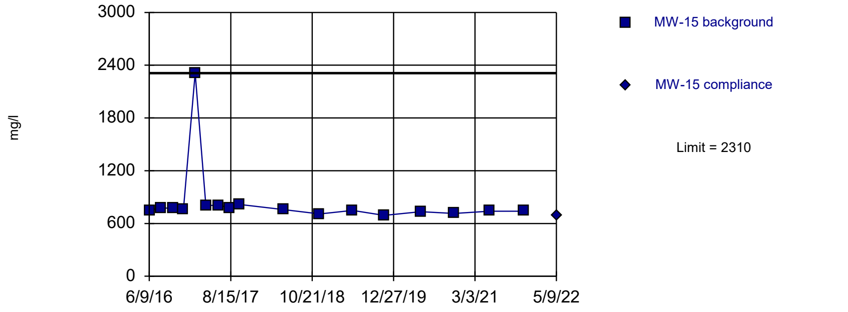
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 17 background values. Well-constituent pair annual alpha = 0.00182. Individual comparison alpha = 0.0009102 (1 of 3).

Constituent: DISSOLVED SOLIDS Analysis Run 9/9/2022 8:25 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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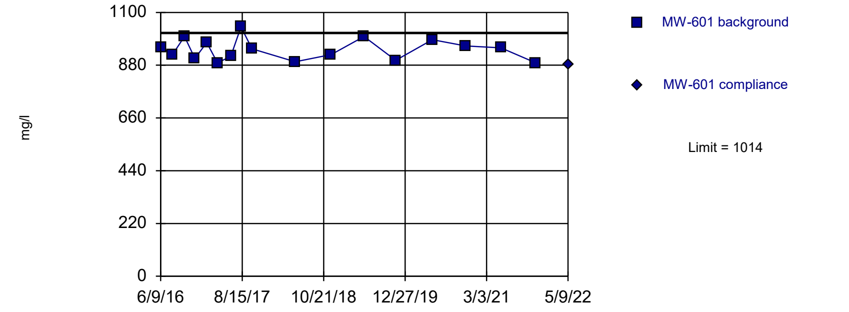
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=944.7, Std. Dev.=44.62, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.939, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: DISSOLVED SOLIDS Analysis Run 9/9/2022 8:25 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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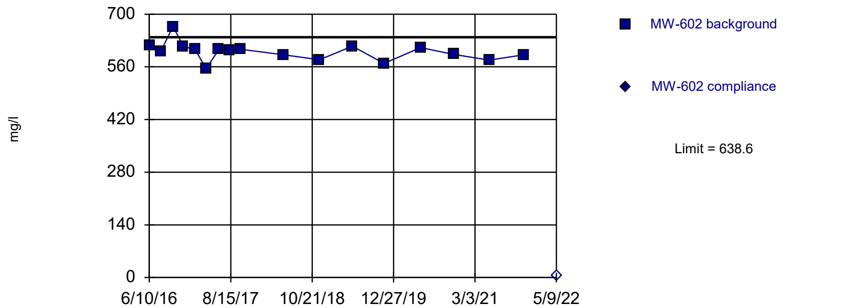
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=600.4, Std. Dev.=24.48, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9179, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: DISSOLVED SOLIDS Analysis Run 9/9/2022 8:25 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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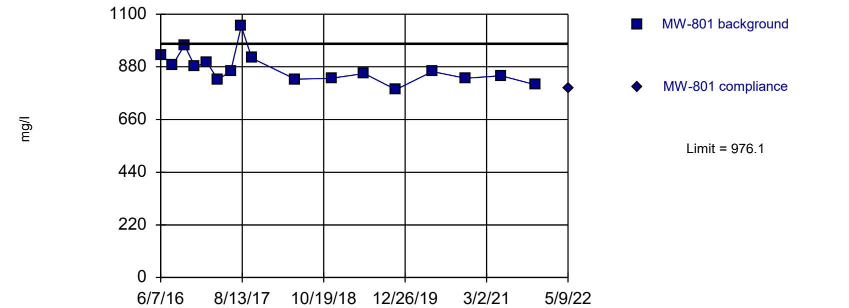
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=874.1, Std. Dev.=65.39, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9076, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: DISSOLVED SOLIDS Analysis Run 9/9/2022 8:25 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: DISSOLVED SOLIDS   Analysis Run 9/9/2022 8:53 AM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-15	MW-15	MW-601	MW-601	MW-602	MW-602	MW-801	MW-801
6/7/2016							930	
6/9/2016	751		956					
6/10/2016					618			
8/9/2016	777		922		600		888	
10/11/2016							970	
10/12/2016	772							
10/13/2016			1000		667			
12/6/2016							880	
12/7/2016	767		908					
12/9/2016					614			
2/7/2017	2310						900	
2/8/2017			974		606			
4/5/2017	803							
4/6/2017			890				826	
4/7/2017					555			
6/14/2017	808						862	
6/15/2017			916		607			
8/9/2017			1040				1050	
8/10/2017	775				604			
10/3/2017	815							
10/4/2017							916	
10/5/2017					607			
10/6/2017			948					
5/23/2018	757		894		592		828	
11/30/2018	709		924		579		832	
5/23/2019	748		1000		615		852	
11/7/2019	692		900		569		785	
5/19/2020	734		986		611		860	
11/12/2020	713		960		593		832	
5/18/2021	740		952		578		843	
11/18/2021	740		890		592		805	
5/9/2022		688		882		<10		788

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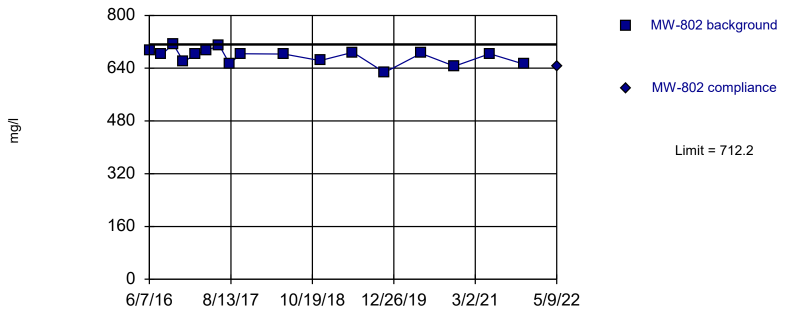
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=676.4, Std. Dev.=22.98, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9449, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: DISSOLVED SOLIDS Analysis Run 9/9/2022 8:25 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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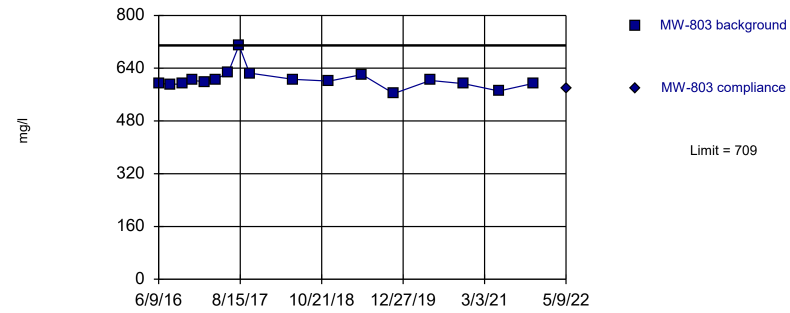
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 17 background values. Well-constituent pair annual alpha = 0.00182. Individual comparison alpha = 0.0009102 (1 of 3).

Constituent: DISSOLVED SOLIDS Analysis Run 9/9/2022 8:25 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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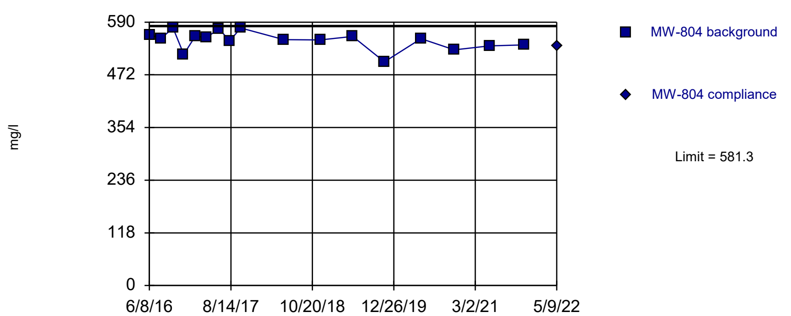
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=549.5, Std. Dev.=20.34, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.933, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: DISSOLVED SOLIDS Analysis Run 9/9/2022 8:26 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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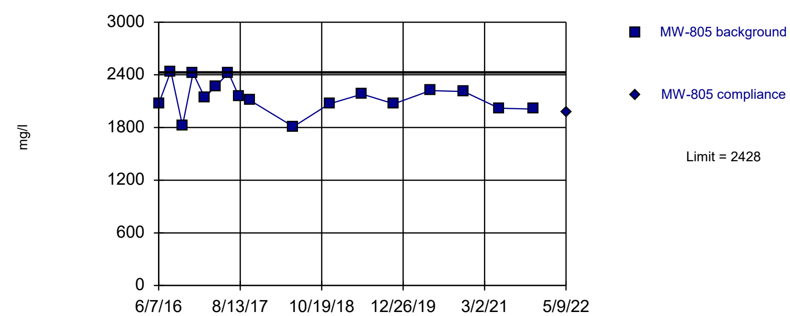
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2143, Std. Dev.=182.8, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9453, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: DISSOLVED SOLIDS Analysis Run 9/9/2022 8:26 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: DISSOLVED SOLIDS   Analysis Run 9/9/2022 8:53 AM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-802	MW-802	MW-803	MW-803	MW-804	MW-804	MW-805	MW-805
6/7/2016	695						2070	
6/8/2016					562			
6/9/2016			594					
8/10/2016	681				554		2440	
8/12/2016			591					
10/11/2016	713				577		1820	
10/13/2016			592					
12/6/2016	659		603				2420	
12/7/2016					518			
2/6/2017							2140	
2/7/2017	683				559			
2/8/2017			599					
4/4/2017	693				555		2270	
4/7/2017			605					
6/13/2017	709		627		575		2420	
8/7/2017	653							
8/8/2017					548		2150	
8/9/2017			709					
10/4/2017	684		625					
10/5/2017					577		2110	
5/23/2018	683		606		551		1810	
11/30/2018	663		601		550		2070	
5/23/2019	688		621		558		2180	
11/7/2019	627		563		501		2070	
5/19/2020	685		603		553		2220	
11/12/2020	646		593		528		2210	
5/18/2021	684		571		537		2020	
11/18/2021	652		594		539		2010	
5/9/2022		646		580		536		1980

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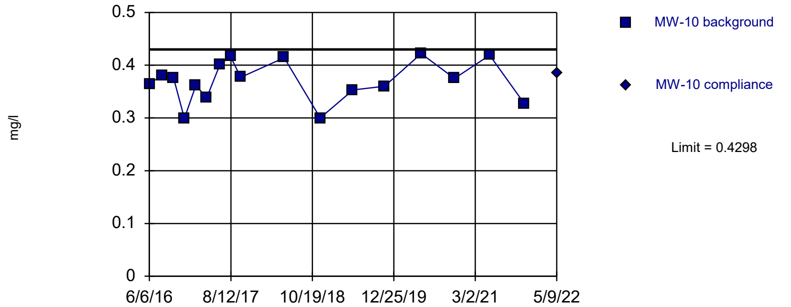
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.3697, Std. Dev.=0.0385, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9368, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 9/9/2022 8:26 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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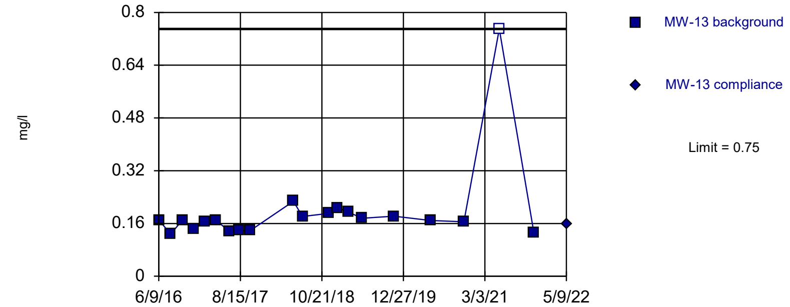
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 20 background values. 5% NDs. Well-constituent pair annual alpha = 0.001125. Individual comparison alpha = 0.0005627 (1 of 3).

Constituent: FLUORIDE Analysis Run 9/9/2022 8:26 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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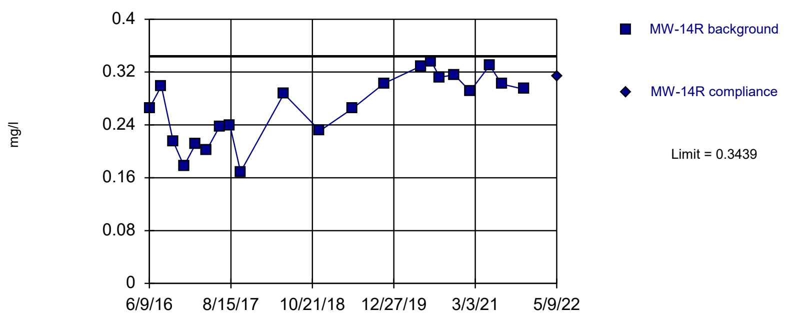
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.2671, Std. Dev.=0.05146, n=21. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9327, critical = 0.873. Kappa = 1.491 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 9/9/2022 8:26 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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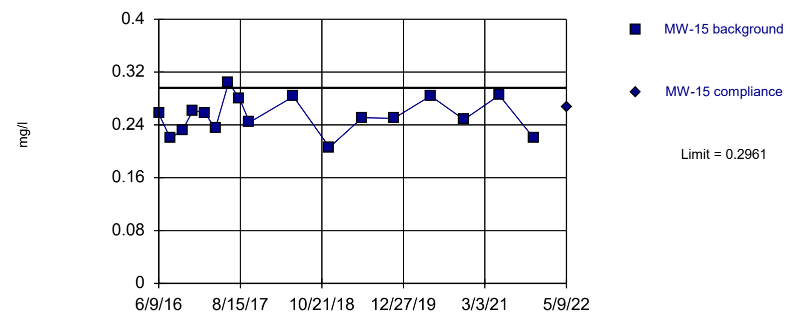
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.2541, Std. Dev.=0.02691, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.973, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 9/9/2022 8:26 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: FLUORIDE   Analysis Run 9/9/2022 8:53 AM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-10	MW-10	MW-13	MW-13	MW-14R	MW-14R	MW-15	MW-15
6/6/2016	0.365							
6/9/2016			0.17		0.265		0.257	
8/9/2016							0.22	
8/11/2016	0.38		0.128		0.299			
10/12/2016	0.376						0.232	
10/13/2016			0.171		0.215			
12/7/2016							0.262	
12/9/2016	0.299				0.178			
12/13/2016			0.142					
2/7/2017							0.258	
2/8/2017	0.362							
2/9/2017					0.211			
2/10/2017			0.167					
4/5/2017							0.235	
4/6/2017	0.338		0.171					
4/7/2017					0.201			
6/14/2017							0.304	
6/15/2017	0.401		0.137		0.237			
8/8/2017			0.139					
8/10/2017	0.417				0.239		0.28	
10/3/2017							0.244	
10/4/2017	0.377							
10/5/2017			0.138		0.169			
5/23/2018	0.414		0.227		0.287		0.283	
7/11/2018			0.181					
11/30/2018	0.3		0.191		0.231		0.206	
1/14/2019			0.208					
3/11/2019			0.194					
5/23/2019	0.353		0.176		0.265		0.251	
11/7/2019	0.36		0.182		0.303		0.25	
5/19/2020	0.422		0.169		0.329		0.284	
7/13/2020					0.336			
8/27/2020					0.312			
11/12/2020	0.375		0.165		0.316		0.248	
2/4/2021					0.291			
5/18/2021	0.419		<1.5		0.33		0.285	
7/21/2021					0.302			
11/18/2021	0.327		0.132		0.294		0.22	
5/9/2022		0.386		0.16		0.313		0.267

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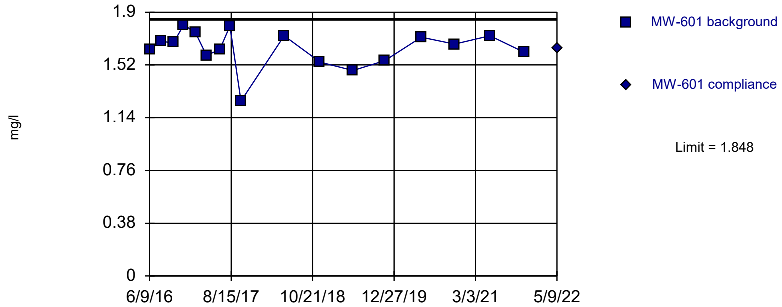
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.639, Std. Dev.=0.1337, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8983, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 9/9/2022 8:26 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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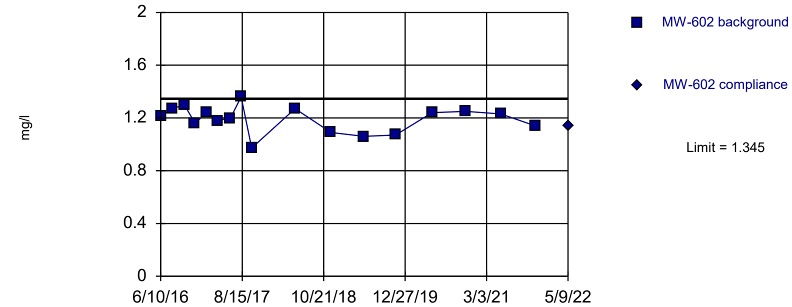
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.191, Std. Dev.=0.099, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9648, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 9/9/2022 8:26 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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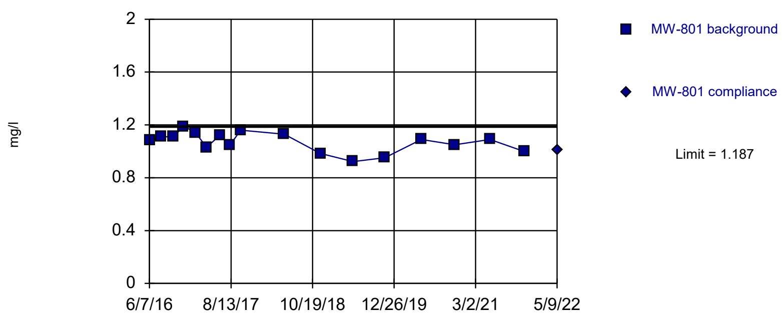
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.071, Std. Dev.=0.07449, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.965, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 9/9/2022 8:26 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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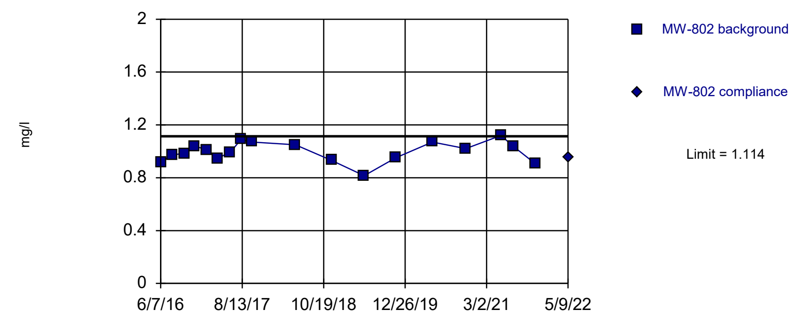
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.9963, Std. Dev.=0.07611, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9747, critical = 0.858. Kappa = 1.541 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 9/9/2022 8:26 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: FLUORIDE   Analysis Run 9/9/2022 8:53 AM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-601	MW-601	MW-602	MW-602	MW-801	MW-801	MW-802	MW-802
6/7/2016					1.08		0.92	
6/9/2016	1.63							
6/10/2016			1.21					
8/9/2016	1.69		1.27		1.11			
8/10/2016							0.972	
10/11/2016					1.11		0.986	
10/13/2016	1.68		1.3					
12/6/2016					1.19		1.04	
12/7/2016	1.81							
12/9/2016			1.16					
2/7/2017					1.14		1.01	
2/8/2017	1.75		1.24					
4/4/2017							0.947	
4/6/2017	1.59				1.03			
4/7/2017			1.18					
6/13/2017							0.995	
6/14/2017					1.12			
6/15/2017	1.63		1.2					
8/7/2017							1.09	
8/9/2017	1.8				1.05			
8/10/2017			1.36					
10/4/2017					1.16		1.07	
10/5/2017			0.972					
10/6/2017	1.26							
5/23/2018	1.73		1.27		1.13		1.05	
11/30/2018	1.54		1.09		0.984		0.932	
5/23/2019	1.48		1.06		0.922		0.816	
11/7/2019	1.55		1.07		0.951		0.952	
5/19/2020	1.72		1.24		1.09		1.07	
11/12/2020	1.67		1.25		1.05		1.02	
5/18/2021	1.73		1.23		1.09		1.12	
7/21/2021							1.04	
11/18/2021	1.61		1.14		0.997		0.904	
5/9/2022		1.64		1.14		1.01		0.949

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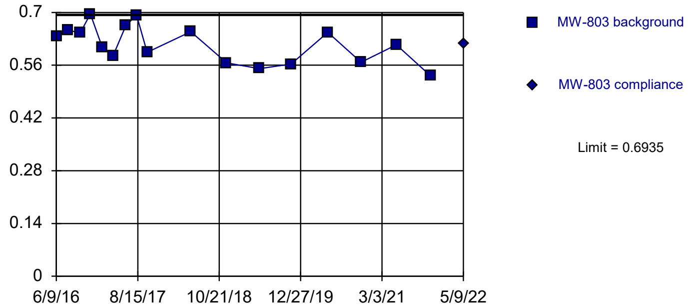
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.6155, Std. Dev.=0.04995, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9575, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 9/9/2022 8:26 AM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

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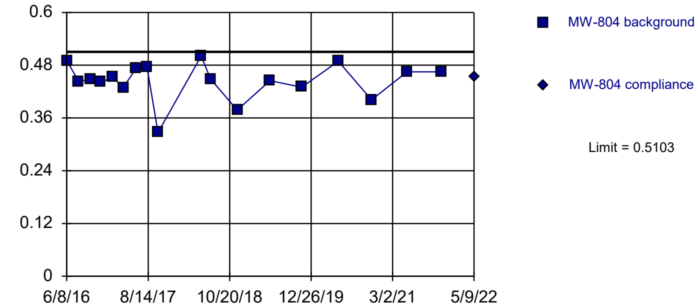
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.4447, Std. Dev.=0.04251, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8955, critical = 0.858. Kappa = 1.541 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 9/9/2022 8:26 AM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

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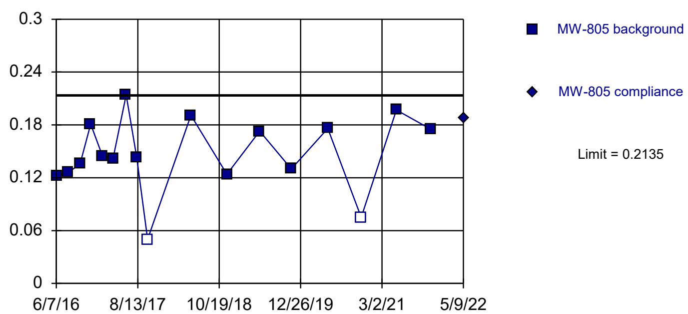
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1471, Std. Dev.=0.04259, n=17, 11.76% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9456, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 9/9/2022 8:26 AM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

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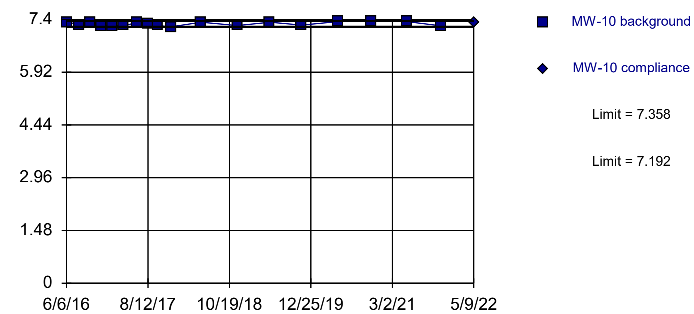
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.275, Std. Dev.=0.05382, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8671, critical = 0.858. Kappa = 1.541 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 9/9/2022 8:26 AM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: FLUORIDE, pH   Analysis Run 9/9/2022 8:53 AM   View: LF LAQC III

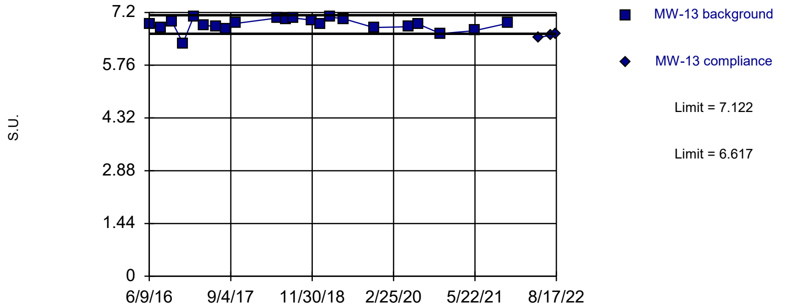
LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-803	MW-803	MW-804	MW-804	MW-805	MW-805	MW-10	MW-10
6/6/2016							7.33	
6/7/2016					0.122			
6/8/2016			0.491					
6/9/2016	0.636							
8/10/2016			0.443		0.126			
8/11/2016							7.26	
8/12/2016	0.653							
10/11/2016			0.448		0.136			
10/12/2016							7.33	
10/13/2016	0.645							
12/6/2016	0.696				0.181			
12/7/2016			0.441					
12/9/2016							7.22	
2/6/2017					0.145			
2/7/2017			0.453					
2/8/2017	0.607						7.21	
4/4/2017			0.429		0.142			
4/6/2017							7.23	
4/7/2017	0.586							
6/13/2017	0.665		0.474		0.214			
6/15/2017							7.31	
8/8/2017			0.476		0.143			
8/9/2017	0.693							
8/10/2017							7.29	
10/4/2017	0.594						7.23	
10/5/2017			0.327		<0.1			
12/12/2017							7.19	
5/23/2018	0.649		0.501		0.191		7.32	
7/11/2018			0.449					
11/30/2018	0.566		0.378		0.124		7.23	
5/23/2019	0.551		0.445		0.173		7.32	
11/7/2019	0.563		0.43		0.13		7.24	
5/19/2020	0.647		0.489		0.176		7.34	
11/12/2020	0.568		0.401		<0.15		7.34	
5/18/2021	0.614		0.465		0.197		7.34	
11/18/2021	0.531		0.465		0.175		7.22	
5/9/2022		0.617		0.453		0.187		7.32

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.87, Std. Dev.=0.1706, n=22. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9044, critical = 0.878. Kappa = 1.48 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 9/9/2022 8:26 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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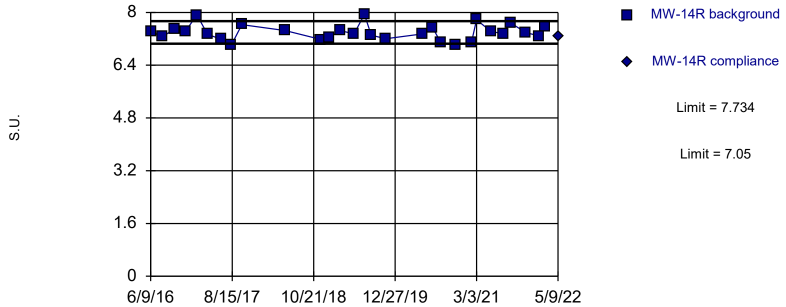
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.392, Std. Dev.=0.2405, n=29. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9552, critical = 0.898. Kappa = 1.422 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 9/9/2022 8:26 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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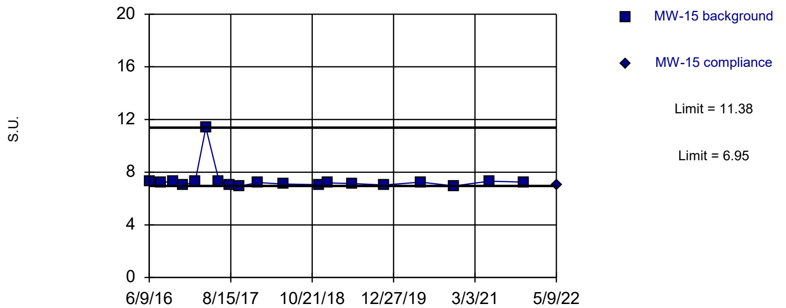
Within Limits

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 19 background values. Well-constituent pair annual alpha = 0.002713. Individual comparison alpha = 0.001357 (1 of 3).

Constituent: pH Analysis Run 9/9/2022 8:26 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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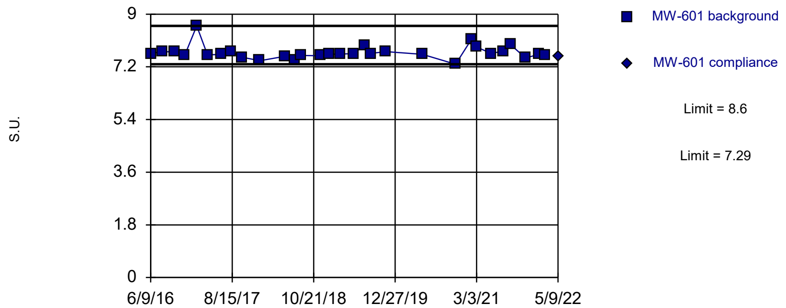
Within Limits

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 30 background values. Well-constituent pair annual alpha = 0.0007322. Individual comparison alpha = 0.0003661 (1 of 3).

Constituent: pH Analysis Run 9/9/2022 8:26 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: pH   Analysis Run 9/9/2022 8:53 AM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-13	MW-13	MW-14R	MW-14R	MW-15	MW-15	MW-601	MW-601
6/9/2016	6.88		7.42		7.31		7.66	
8/9/2016					7.23		7.72	
8/11/2016	6.78		7.26					
10/12/2016					7.28			
10/13/2016	6.95		7.51				7.71	
12/7/2016					7.02		7.61	
12/9/2016			7.42					
12/13/2016	6.36							
2/7/2017					7.28			
2/8/2017							8.6	
2/9/2017			7.92					
2/10/2017	7.08							
4/5/2017					11.38			
4/6/2017	6.86						7.61	
4/7/2017			7.34					
6/14/2017					7.34			
6/15/2017	6.8		7.19				7.62	
8/8/2017	6.74							
8/9/2017							7.72	
8/10/2017			7.01		7.02			
10/3/2017					6.95			
10/5/2017	6.9		7.63					
10/6/2017							7.53	
1/9/2018					7.21		7.41	
5/23/2018	7.05		7.45		7.1		7.56	
7/11/2018	7.02						7.43	
8/16/2018	7.05						7.59	
11/30/2018	6.99		7.18		7.05		7.58	
1/14/2019	6.87		7.25		7.18		7.63	
3/11/2019	7.07		7.45				7.64	
5/23/2019	7.03		7.35		7.14		7.65	
7/17/2019			7.94				7.95	
8/23/2019			7.31				7.66	
11/7/2019	6.79		7.2		7.03		7.72	
5/19/2020	6.81		7.35		7.25		7.63	
7/13/2020	6.88		7.54					
8/27/2020			7.07					
11/12/2020	6.62		7.01		6.95		7.29	
2/4/2021			7.09				8.14	
3/3/2021			7.78				7.88	
5/18/2021	6.7		7.42		7.32		7.66	
7/21/2021			7.36				7.73	
8/30/2021			7.69				7.96	
11/18/2021	6.9		7.39		7.25		7.5	
1/27/2022			7.29				7.63	
3/3/2022			7.56				7.6	
5/9/2022		6.52		7.28		7.06		7.57
7/15/2022		6.57 1st Verification						
8/17/2022		6.62 2nd Verification						

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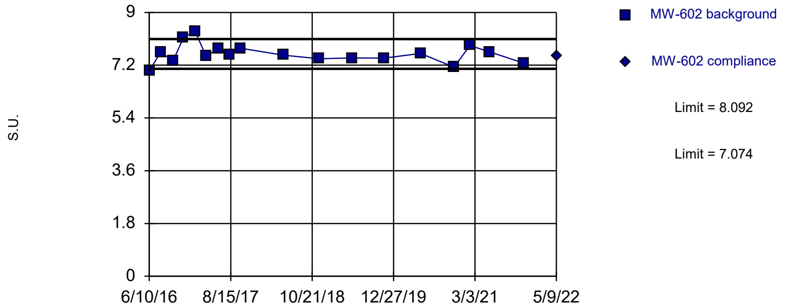
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.583, Std. Dev.=0.3302, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9633, critical = 0.858. Kappa = 1.541 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 9/9/2022 8:26 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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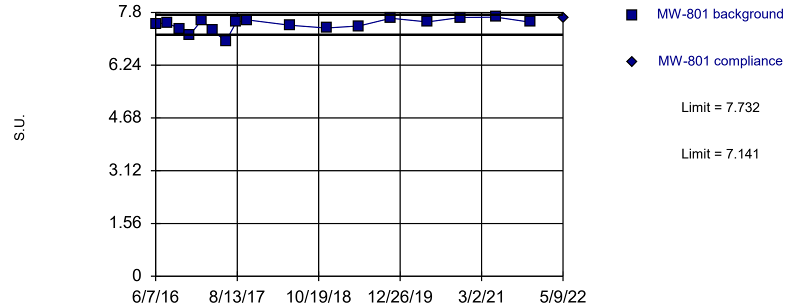
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.436, Std. Dev.=0.1896, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9092, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 9/9/2022 8:26 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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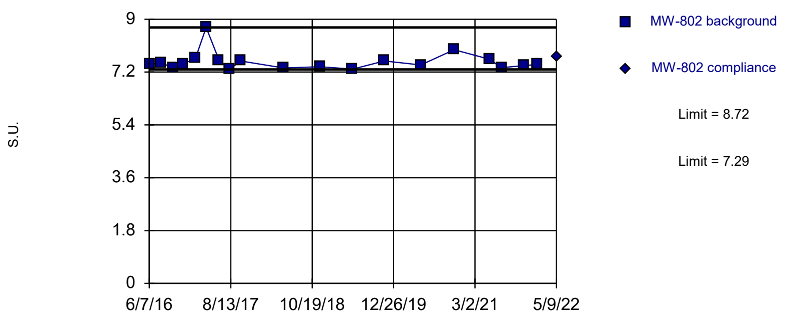
Within Limits

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 19 background values. Well-constituent pair annual alpha = 0.002713. Individual comparison alpha = 0.001357 (1 of 3).

Constituent: pH Analysis Run 9/9/2022 8:26 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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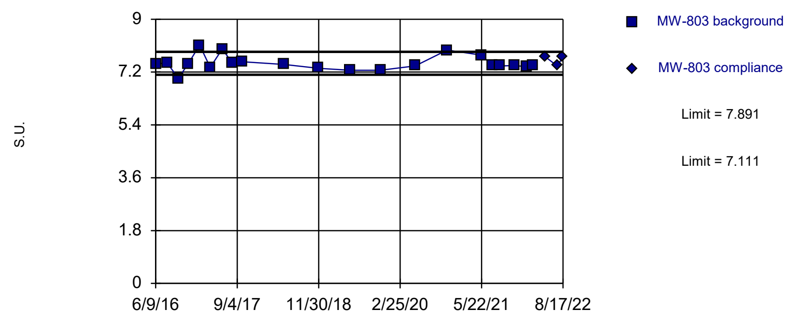
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.501, Std. Dev.=0.2615, n=21. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8827, critical = 0.873. Kappa = 1.491 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 9/9/2022 8:26 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: pH   Analysis Run 9/9/2022 8:53 AM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-602	MW-602	MW-801	MW-801	MW-802	MW-802	MW-803	MW-803
6/7/2016			7.47		7.46			
6/9/2016							7.48	
6/10/2016	7.01							
8/9/2016	7.64		7.48					
8/10/2016					7.52			
8/12/2016							7.51	
10/11/2016			7.32		7.34			
10/13/2016	7.34						6.99	
12/6/2016			7.14		7.48		7.48	
12/9/2016	8.15							
2/7/2017			7.58		7.67			
2/8/2017	8.36						8.12	
4/5/2017					8.72			
4/6/2017			7.26					
4/7/2017	7.51						7.36	
6/13/2017					7.6		7.98	
6/14/2017			6.95					
6/15/2017	7.77							
8/7/2017					7.29			
8/8/2017							7.52	
8/9/2017			7.51					
8/10/2017	7.56							
10/4/2017			7.58		7.58		7.55	
10/5/2017	7.78							
5/23/2018	7.54		7.42		7.34		7.46	
11/30/2018	7.42		7.34		7.38		7.33	
5/23/2019	7.45		7.4		7.3		7.26	
11/7/2019	7.44		7.63		7.58		7.26	
5/19/2020	7.6		7.52		7.44		7.41	
11/12/2020	7.13		7.65		7.96		7.95	
2/4/2021	7.87							
5/18/2021	7.66		7.66		7.64		7.78	
7/21/2021					7.35		7.44	
8/30/2021							7.41	
11/18/2021	7.27		7.51		7.42		7.42	
1/27/2022					7.46		7.39	
3/3/2022							7.43	
5/9/2022		7.5		7.64		7.71		7.73
7/15/2022								7.41 Extra Sample
8/17/2022								7.71 Extra Sample

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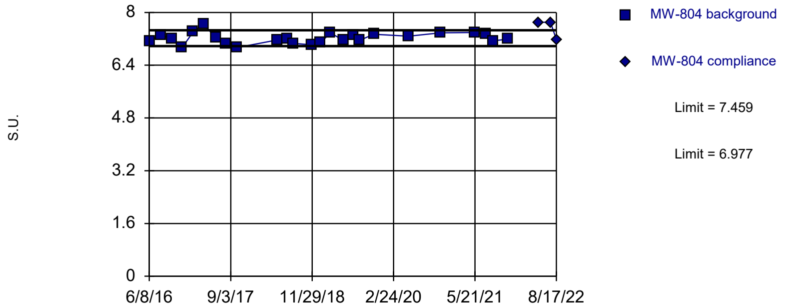
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.218, Std. Dev.=0.1662, n=25. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9671, critical = 0.888. Kappa = 1.448 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 9/9/2022 8:26 AM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

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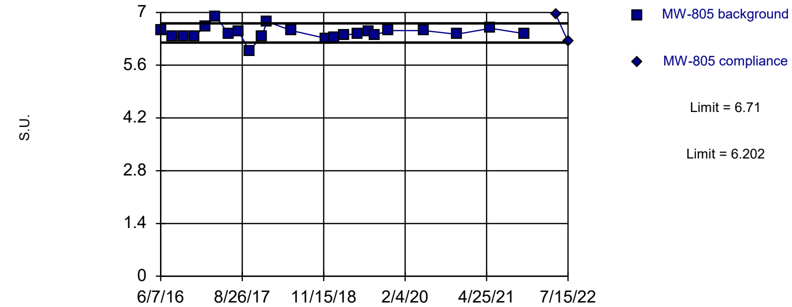
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.456, Std. Dev.=0.1728, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9122, critical = 0.881. Kappa = 1.47 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 9/9/2022 8:26 AM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

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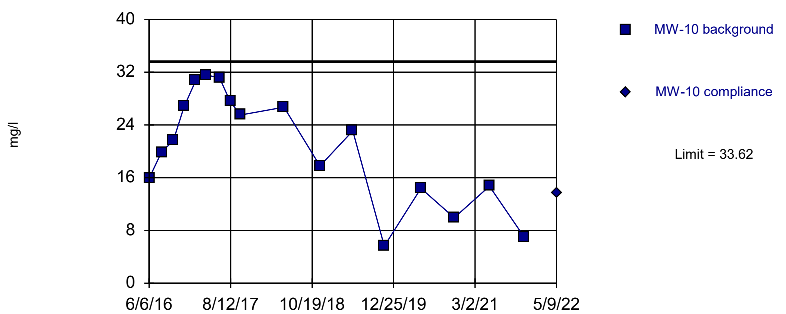
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=20.59, Std. Dev.=8.347, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9412, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: SULFATE Analysis Run 9/9/2022 8:26 AM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

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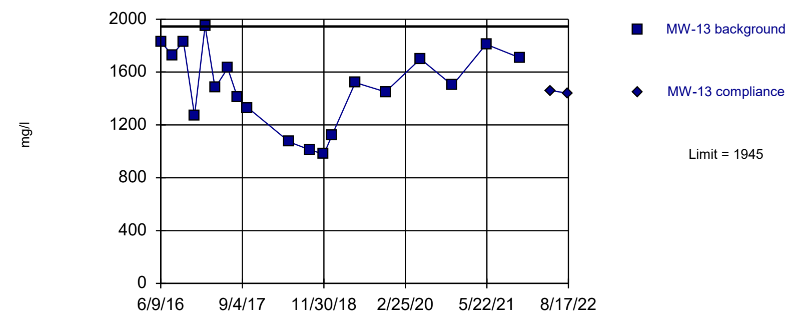
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1491, Std. Dev.=298.5, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9465, critical = 0.863. Kappa = 1.522 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: SULFATE Analysis Run 9/9/2022 8:26 AM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: pH, SULFATE Analysis Run 9/9/2022 8:53 AM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-804	MW-804	MW-805	MW-805	MW-10	MW-10	MW-13	MW-13
6/6/2016					15.9			
6/7/2016			6.52					
6/8/2016	7.13							
6/9/2016							1830	
8/10/2016	7.32		6.35					
8/11/2016					19.9		1730	
10/11/2016	7.2		6.36					
10/12/2016					21.6			
10/13/2016							1830	
12/6/2016			6.36					
12/7/2016	6.93							
12/9/2016					26.8			
12/13/2016							1270	
2/6/2017			6.62					
2/7/2017	7.41							
2/8/2017					30.7			
2/10/2017							1950	
4/5/2017	7.65		6.9					
4/6/2017					31.6		1480	
6/13/2017	7.22		6.43					
6/15/2017					31.1		1630	
8/8/2017	7.06		6.49				1410	
8/10/2017					27.6			
10/4/2017					25.5			
10/5/2017	6.93		5.99				1330	
12/12/2017			6.35					
1/9/2018			6.76					
5/23/2018	7.17		6.52		26.7		1070	
7/11/2018	7.21							
8/16/2018	7.06							
9/17/2018							1010	
11/30/2018	7.02		6.31		17.8		978	
1/14/2019	7.07		6.32				1120	
3/11/2019	7.38		6.4					
5/23/2019	7.15		6.44		23.1		1520	
7/17/2019	7.31		6.48					
8/22/2019	7.16		6.4					
11/7/2019	7.34		6.52		5.64		1450	
5/19/2020	7.28		6.52		14.4		1700	
11/12/2020	7.38		6.42		9.92		1500	
5/18/2021	7.39		6.58		14.7		1810	
7/21/2021	7.35							
8/30/2021	7.14							
11/18/2021	7.19		6.44		7.03		1710	
5/9/2022		7.7		6.94		13.6		1460
7/15/2022		7.24 1st Verification		6.23 1st Verification				
8/17/2022		7.18 Extra Sample						1440 Extra Sample

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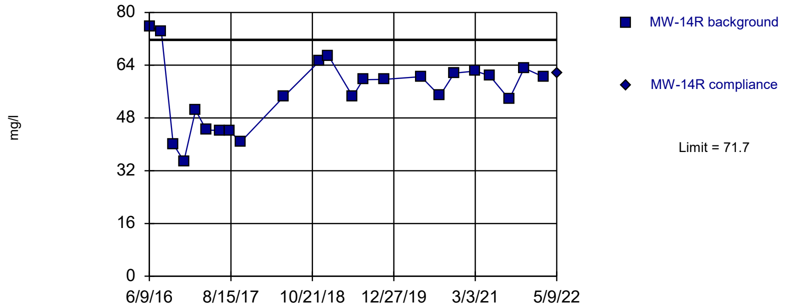
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=55.92, Std. Dev.=10.73, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9616, critical = 0.881. Kappa = 1.47 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: SULFATE Analysis Run 9/9/2022 8:26 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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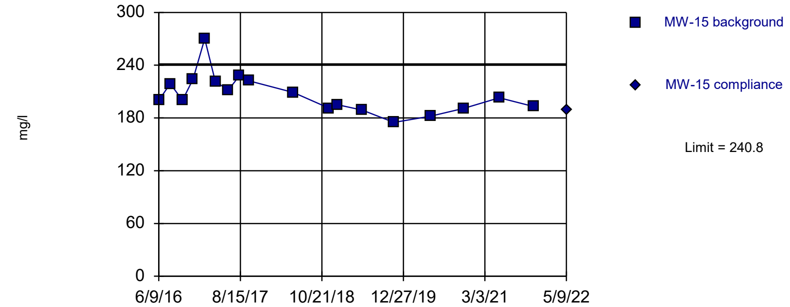
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=206.9, Std. Dev.=22.01, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9067, critical = 0.858. Kappa = 1.541 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: SULFATE Analysis Run 9/9/2022 8:26 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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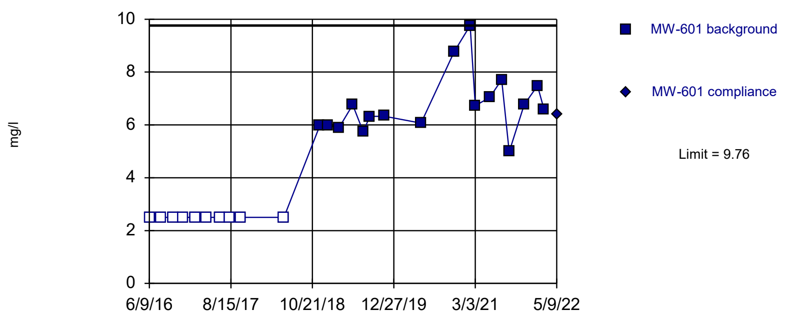
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 27 background values. 37.04% NDs. Well-constituent pair annual alpha = 0.0005119. Individual comparison alpha = 0.000256 (1 of 3).

Constituent: SULFATE Analysis Run 9/9/2022 8:26 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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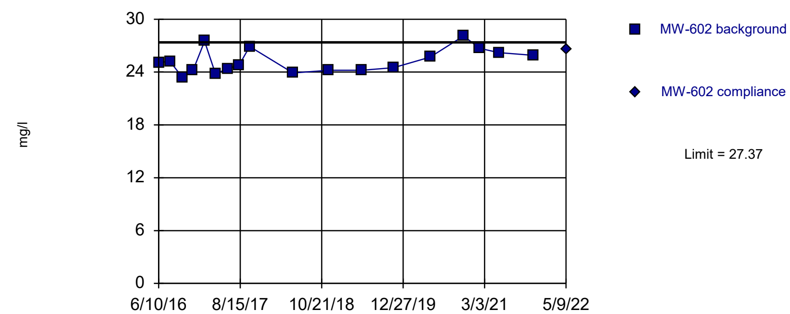
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=25.26, Std. Dev.=1.366, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9342, critical = 0.858. Kappa = 1.541 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: SULFATE Analysis Run 9/9/2022 8:26 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: SULFATE Analysis Run 9/9/2022 8:53 AM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-14R	MW-14R	MW-15	MW-15	MW-601	MW-601	MW-602	MW-602
6/9/2016	75.8		200		<5			
6/10/2016							25.1	
8/9/2016			219		<5		25.2	
8/11/2016	74.2							
10/12/2016			200					
10/13/2016	40.1				<5		23.4	
12/7/2016			224		<5			
12/9/2016	34.9						24.2	
2/7/2017			270					
2/8/2017					<5		27.5	
2/9/2017	50.4							
4/5/2017			221					
4/6/2017					<5			
4/7/2017	44.3						23.8	
6/14/2017			212					
6/15/2017	44.2				<5		24.4	
8/9/2017					<5			
8/10/2017	44		228				24.8	
10/3/2017			222					
10/5/2017	40.7						26.9	
10/6/2017					<5			
5/23/2018	54.5		209		<5		23.9	
11/30/2018	65.4		191		5.98		24.2	
1/14/2019	66.9		195		5.97			
3/11/2019					5.89			
5/23/2019	54.5		189		6.76		24.2	
7/17/2019	59.6				5.75			
8/23/2019					6.32			
11/7/2019	59.7		175		6.33		24.5	
5/19/2020	60.5		182		6.07		25.7	
8/27/2020	54.7							
11/12/2020	61.6		191		8.78		28.1	
2/4/2021					9.76		26.7	
3/3/2021	62.2				6.73			
5/18/2021	60.8		203		7.04		26.2	
7/21/2021					7.71			
8/30/2021	53.7				4.98			
11/18/2021	63.1		193		6.77		25.9	
1/27/2022					7.48			
3/3/2022	60.4				6.58			
5/9/2022		61.7		189		6.41		26.6

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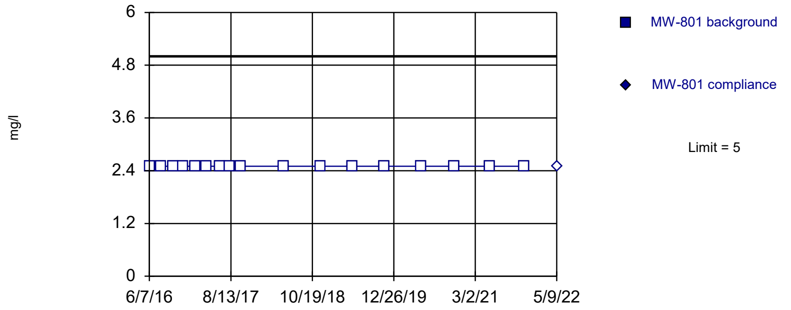
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 17) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.00182. Individual comparison alpha = 0.0009102 (1 of 3).

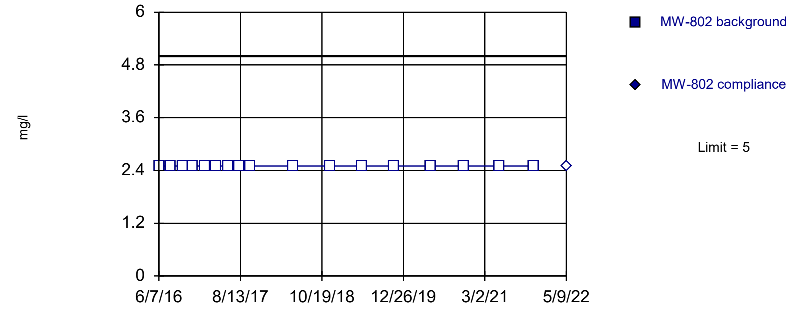
Constituent: SULFATE Analysis Run 9/9/2022 8:27 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Sanitas™ v.9.6.35 Sanitas software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 17) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.00182. Individual comparison alpha = 0.0009102 (1 of 3).

Constituent: SULFATE Analysis Run 9/9/2022 8:27 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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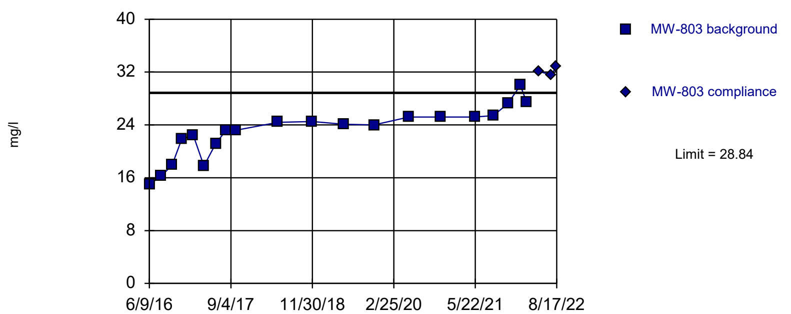
Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=23.07, Std. Dev.=3.844, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9364, critical = 0.868. Kappa = 1.502 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: SULFATE Analysis Run 9/9/2022 8:27 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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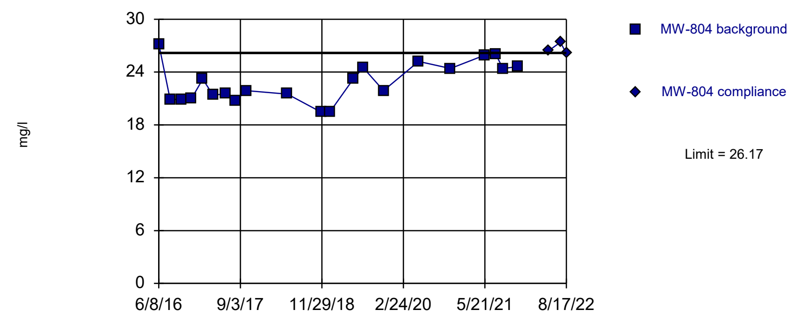
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=22.82, Std. Dev.=2.245, n=21. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.945, critical = 0.873. Kappa = 1.491 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: SULFATE Analysis Run 9/9/2022 8:27 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: SULFATE   Analysis Run 9/9/2022 8:53 AM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-801	MW-801	MW-802	MW-802	MW-803	MW-803	MW-804	MW-804
6/7/2016	<5		<5					
6/8/2016							27.2	
6/9/2016					15			
8/9/2016	<5							
8/10/2016			<5				20.9	
8/12/2016					16.2			
10/11/2016	<5		<5				20.9	
10/13/2016					17.9			
12/6/2016	<5		<5		21.9			
12/7/2016							21	
2/7/2017	<5		<5				23.2	
2/8/2017					22.4			
4/4/2017			<5				21.4	
4/6/2017	<5							
4/7/2017					17.8			
6/13/2017			<5		21.2		21.5	
6/14/2017	<5							
8/7/2017			<5					
8/8/2017							20.7	
8/9/2017	<5				23.2			
10/4/2017	<5		<5		23.2			
10/5/2017							21.9	
5/23/2018	<5		<5		24.4		21.5	
11/30/2018	<5		<5		24.5		19.4	
1/14/2019							19.5	
5/23/2019	<5		<5		24.1		23.2	
7/17/2019							24.5	
11/7/2019	<5		<5		24		21.9	
5/19/2020	<5		<5		25.2		25.2	
11/12/2020	<5		<5		25.2		24.4	
5/18/2021	<5		<5		25.2		25.9	
7/21/2021							26	
8/30/2021					25.4		24.4	
11/18/2021	<5		<5		27.2		24.6	
1/27/2022					30			
3/3/2022					27.4			
5/9/2022		<5		<5		32.1		26.4
7/15/2022						31.6 1st Verification		27.4 1st Verification
8/17/2022						32.8 2nd Verification		26.1 2nd Verification

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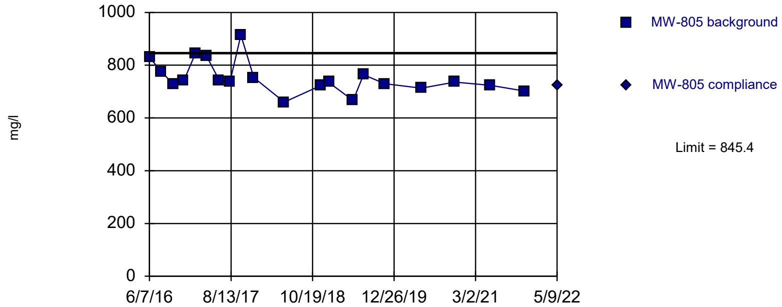
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=752.7, Std. Dev.=61.76, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8968, critical = 0.868. Kappa = 1.502 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: SULFATE Analysis Run 9/9/2022 8:27 AM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: SULFATE   Analysis Run 9/9/2022 8:53 AM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-805	MW-805
6/7/2016	829	
8/10/2016	776	
10/11/2016	726	
12/6/2016	742	
2/6/2017	846	
4/4/2017	836	
6/13/2017	742	
8/8/2017	737	
10/5/2017	914	
12/12/2017	753	
5/23/2018	660	
11/30/2018	722	
1/14/2019	735	
5/23/2019	666	
7/17/2019	764	
11/7/2019	730	
5/19/2020	713	
11/12/2020	736	
5/18/2021	724	
11/18/2021	702	
5/9/2022		721

Prediction Limit

LaCygne   Client: SCS Engineers   Data: LaC GW Data   Printed 9/9/2022, 8:53 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
BORON (mg/l)	MW-10	1.002	n/a	5/9/2022	0.787	No	18	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-13	0.5808	n/a	5/9/2022	0.25	No	21	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-14R	0.8542	n/a	5/9/2022	0.73	No	19	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-15	0.2947	n/a	5/9/2022	0.225	No	18	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-601	1.912	n/a	5/9/2022	1.85	No	17	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-602	2.442	n/a	5/9/2022	2.22	No	17	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-801	2.384	n/a	5/9/2022	2.1	No	17	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-802	2.559	n/a	5/9/2022	2.36	No	17	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-803	2.165	n/a	5/9/2022	2.01	No	17	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-804	1.74	n/a	5/9/2022	1.52	No	23	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-805	0.5733	n/a	5/9/2022	0.519	No	19	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-10	61.29	n/a	5/9/2022	48.3	No	17	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-13	413.3	n/a	8/17/2022	339	No	19	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-14R	61.34	n/a	5/9/2022	52	No	22	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-15	108.6	n/a	5/9/2022	95.6	No	18	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-601	23.9	n/a	5/9/2022	16.6	No	22	0	n/a	0.000...	NP Intra (normality) ...
CALCIUM (mg/l)	MW-602	25.44	n/a	5/9/2022	21.6	No	17	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-801	35.09	n/a	5/9/2022	22.1	No	17	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-802	38.75	n/a	5/9/2022	28.4	No	17	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-803	49.12	n/a	8/17/2022	37.9	No	19	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-804	68.52	n/a	8/17/2022	59.9	No	20	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-805	484.6	n/a	5/9/2022	433	No	22	0	No	0.001075	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-10	67.5	n/a	5/9/2022	49.2	No	17	0	No	0.001075	Param Intra 1 of 3
CHLORIDE (mg/l)	**MW-13**	**19.61**	**n/a**	**8/17/2022**	**53.8**	**Yes**	**20**	**0**	**No**	**0.001075**	**Param Intra 1 of 3**
CHLORIDE (mg/l)	MW-14R	6.889	n/a	5/9/2022	6.43	No	29	0	No	0.001075	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-15	19.29	n/a	5/9/2022	10.9	No	18	0	No	0.001075	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-601	201	n/a	5/9/2022	167	No	22	0	n/a	0.000...	NP Intra (normality) ...
CHLORIDE (mg/l)	MW-602	17.86	n/a	5/9/2022	16.5	No	17	0	No	0.001075	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-801	121.4	n/a	5/9/2022	95.7	No	17	0	No	0.001075	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-802	38.75	n/a	5/9/2022	38.5	No	18	0	No	0.001075	Param Intra 1 of 3
CHLORIDE (mg/l)	**MW-803**	**50.6**	**n/a**	**8/17/2022**	**51.5**	**Yes**	**20**	**0**	**No**	**0.001075**	**Param Intra 1 of 3**
CHLORIDE (mg/l)	MW-804	32.11	n/a	8/17/2022	30	No	20	0	No	0.001075	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-805	511.2	n/a	5/9/2022	501	No	19	0	No	0.001075	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-10	632.4	n/a	5/9/2022	540	No	17	0	No	0.001075	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-13	6050	n/a	5/9/2022	2330	No	17	0	n/a	0.000...	NP Intra (normality) ...
DISSOLVED SOLIDS (mg/l)	MW-14R	584.8	n/a	5/9/2022	532	No	17	0	No	0.001075	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-15	2310	n/a	5/9/2022	688	No	17	0	n/a	0.000...	NP Intra (normality) ...
DISSOLVED SOLIDS (mg/l)	MW-601	1014	n/a	5/9/2022	882	No	17	0	No	0.001075	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-602	638.6	n/a	5/9/2022	5ND	No	17	0	No	0.001075	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-801	976.1	n/a	5/9/2022	788	No	17	0	No	0.001075	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-802	712.2	n/a	5/9/2022	646	No	17	0	No	0.001075	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-803	709	n/a	5/9/2022	580	No	17	0	n/a	0.000...	NP Intra (normality) ...
DISSOLVED SOLIDS (mg/l)	MW-804	581.3	n/a	5/9/2022	536	No	17	0	No	0.001075	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-805	2428	n/a	5/9/2022	1980	No	17	0	No	0.001075	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-10	0.4298	n/a	5/9/2022	0.386	No	17	0	No	0.001075	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-13	0.75	n/a	5/9/2022	0.16	No	20	5	n/a	0.000...	NP Intra (normality) ...
FLUORIDE (mg/l)	MW-14R	0.3439	n/a	5/9/2022	0.313	No	21	0	No	0.001075	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-15	0.2961	n/a	5/9/2022	0.267	No	17	0	No	0.001075	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-601	1.848	n/a	5/9/2022	1.64	No	17	0	No	0.001075	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-602	1.345	n/a	5/9/2022	1.14	No	17	0	No	0.001075	Param Intra 1 of 3

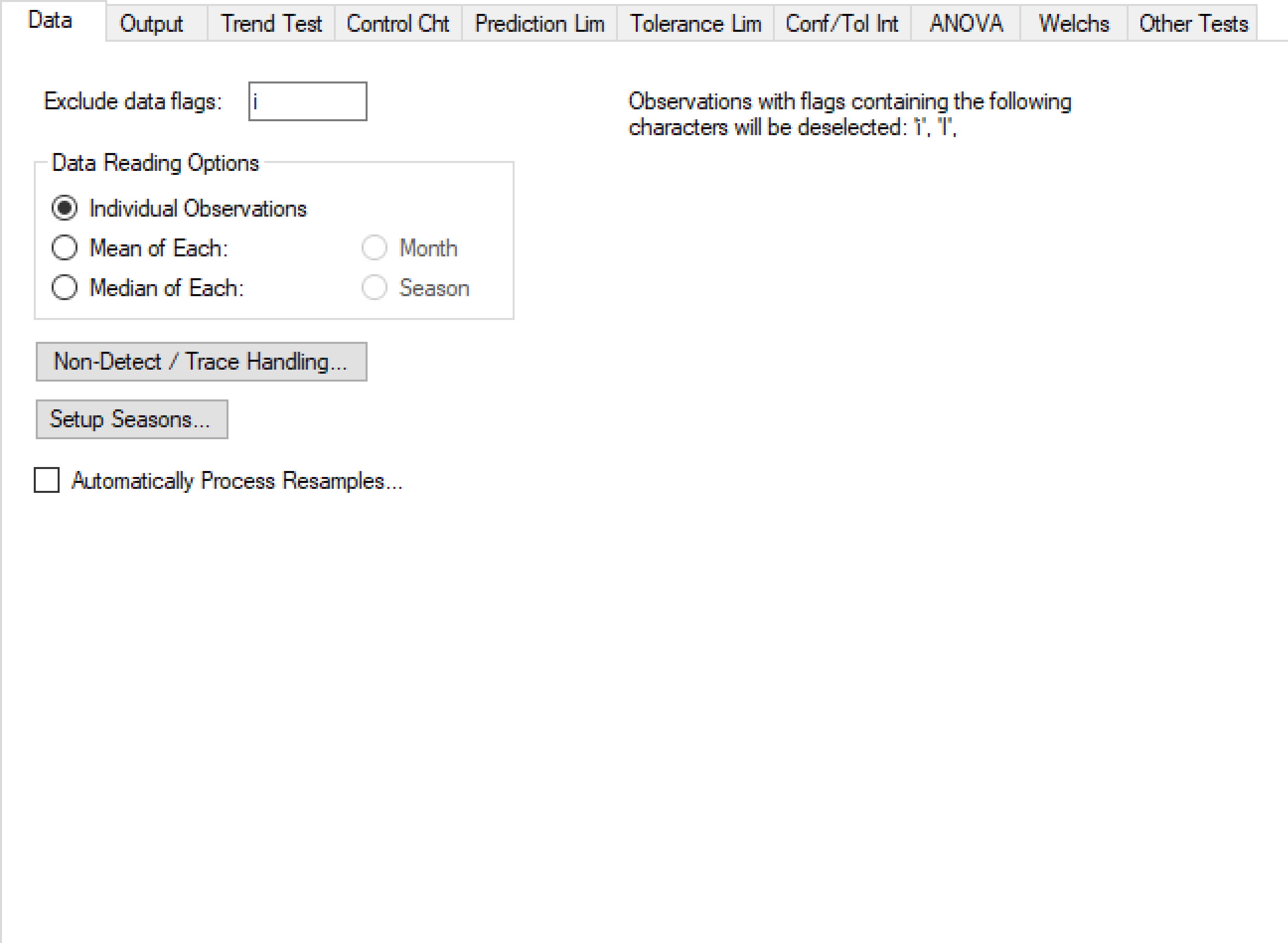
Prediction Limit

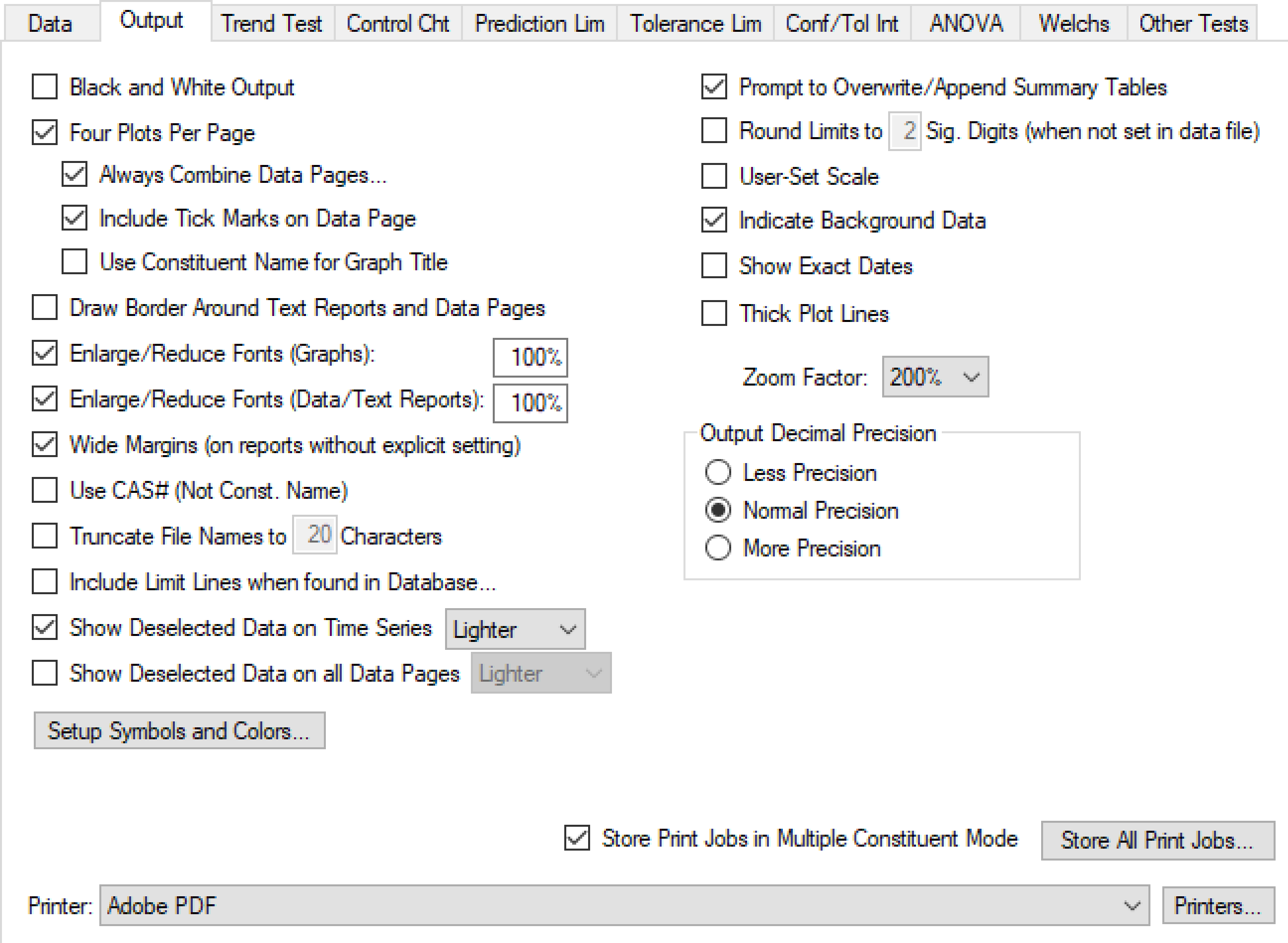
LaCygne Client: SCS Engineers Data: LaC GW Data Printed 9/9/2022, 8:53 AM

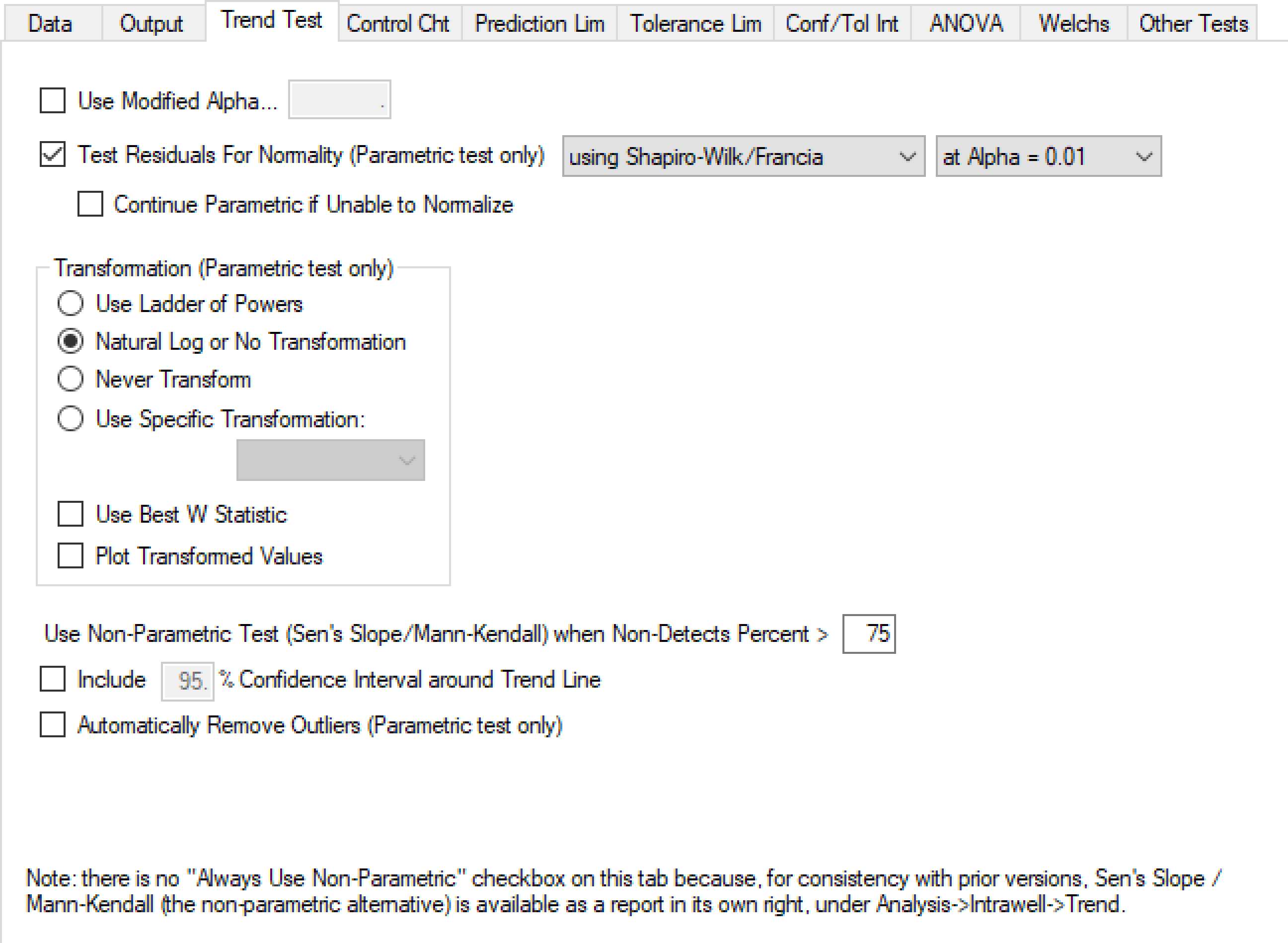
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
FLUORIDE (mg/l)	MW-801	1.187	n/a	5/9/2022	1.01	No	17	0	No	0.001075	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-802	1.114	n/a	5/9/2022	0.949	No	18	0	No	0.001075	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-803	0.6935	n/a	5/9/2022	0.617	No	17	0	No	0.001075	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-804	0.5103	n/a	5/9/2022	0.453	No	18	0	No	0.001075	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-805	0.2135	n/a	5/9/2022	0.187	No	17	11.76	No	0.001075	Param Intra 1 of 3
pH (S.U.)	MW-10	7.358	7.192	5/9/2022	7.32	No	18	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-13	7.122	6.617	8/17/2022	6.62	No	22	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-14R	7.734	7.05	5/9/2022	7.28	No	29	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-15	11.38	6.95	5/9/2022	7.06	No	19	0	n/a	0.001357	NP Intra (normality) ...
pH (S.U.)	MW-601	8.6	7.29	5/9/2022	7.57	No	30	0	n/a	0.000...	NP Intra (normality) ...
pH (S.U.)	MW-602	8.092	7.074	5/9/2022	7.5	No	18	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-801	7.732	7.141	5/9/2022	7.64	No	17	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-802	8.72	7.29	5/9/2022	7.71	No	19	0	n/a	0.001357	NP Intra (normality) ...
pH (S.U.)	MW-803	7.891	7.111	8/17/2022	7.71	No	21	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-804	7.459	6.977	8/17/2022	7.18	No	25	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-805	6.71	6.202	7/15/2022	6.23	No	23	0	No	0.000...	Param Intra 1 of 3
SULFATE (mg/l)	MW-10	33.62	n/a	5/9/2022	13.6	No	17	0	No	0.001075	Param Intra 1 of 3
SULFATE (mg/l)	MW-13	1945	n/a	8/17/2022	1440	No	19	0	No	0.001075	Param Intra 1 of 3
SULFATE (mg/l)	MW-14R	71.7	n/a	5/9/2022	61.7	No	23	0	No	0.001075	Param Intra 1 of 3
SULFATE (mg/l)	MW-15	240.8	n/a	5/9/2022	189	No	18	0	No	0.001075	Param Intra 1 of 3
SULFATE (mg/l)	MW-601	9.76	n/a	5/9/2022	6.41	No	27	37.04	n/a	0.000256	NP Intra (normality) ...
SULFATE (mg/l)	MW-602	27.37	n/a	5/9/2022	26.6	No	18	0	No	0.001075	Param Intra 1 of 3
SULFATE (mg/l)	MW-801	5	n/a	5/9/2022	2.5ND	No	17	100	n/a	0.000...	NP Intra (NDs) 1 of 3
SULFATE (mg/l)	MW-802	5	n/a	5/9/2022	2.5ND	No	17	100	n/a	0.000...	NP Intra (NDs) 1 of 3
SULFATE (mg/l)	**MW-803**	**28.84**	**n/a**	**8/17/2022**	**32.8**	**Yes**	**20**	**0**	**No**	**0.001075**	**Param Intra 1 of 3**
SULFATE (mg/l)	MW-804	26.17	n/a	8/17/2022	26.1	No	21	0	No	0.001075	Param Intra 1 of 3
SULFATE (mg/l)	MW-805	845.4	n/a	5/9/2022	721	No	20	0	No	0.001075	Param Intra 1 of 3

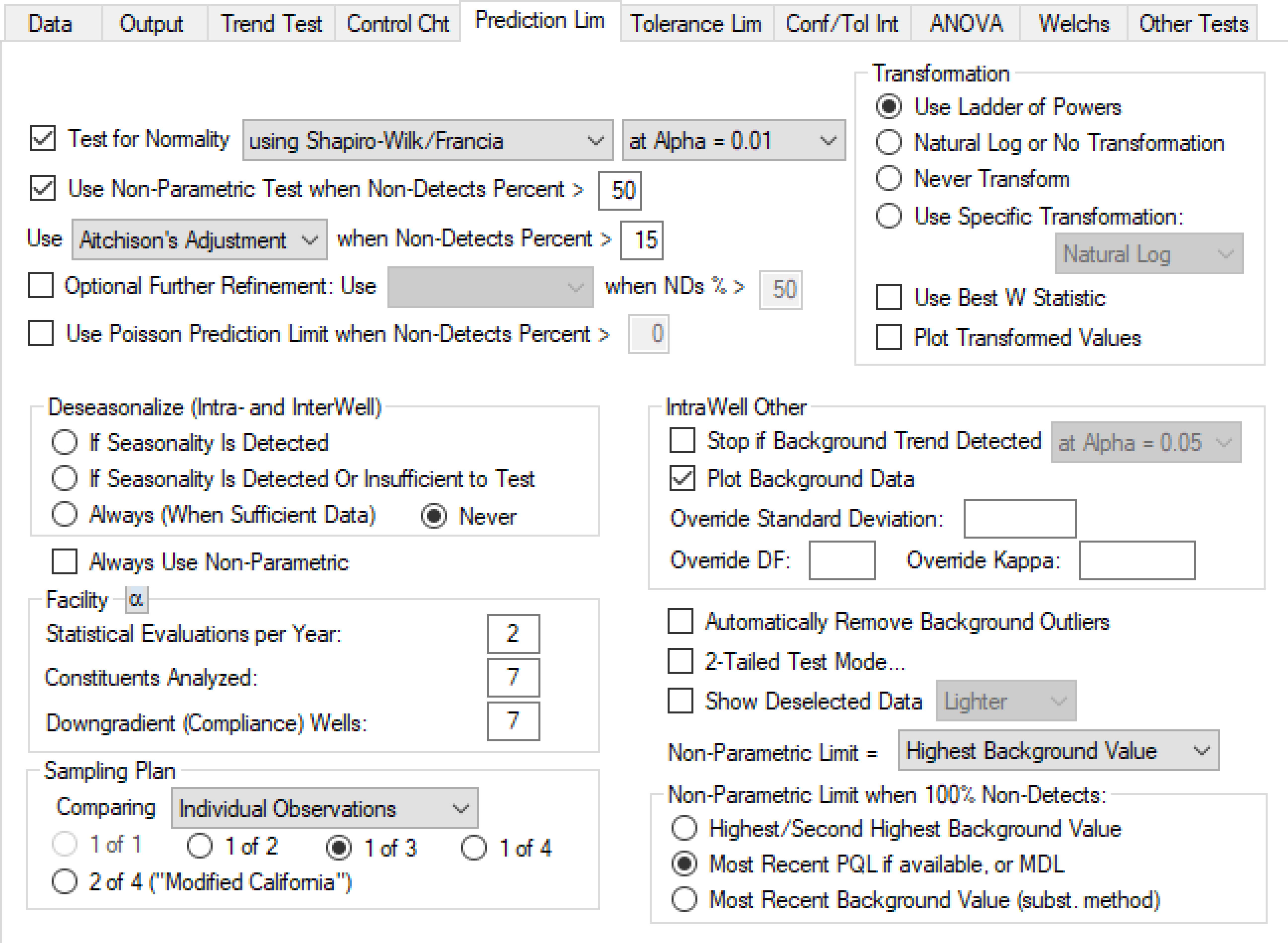
ATTACHMENT 2

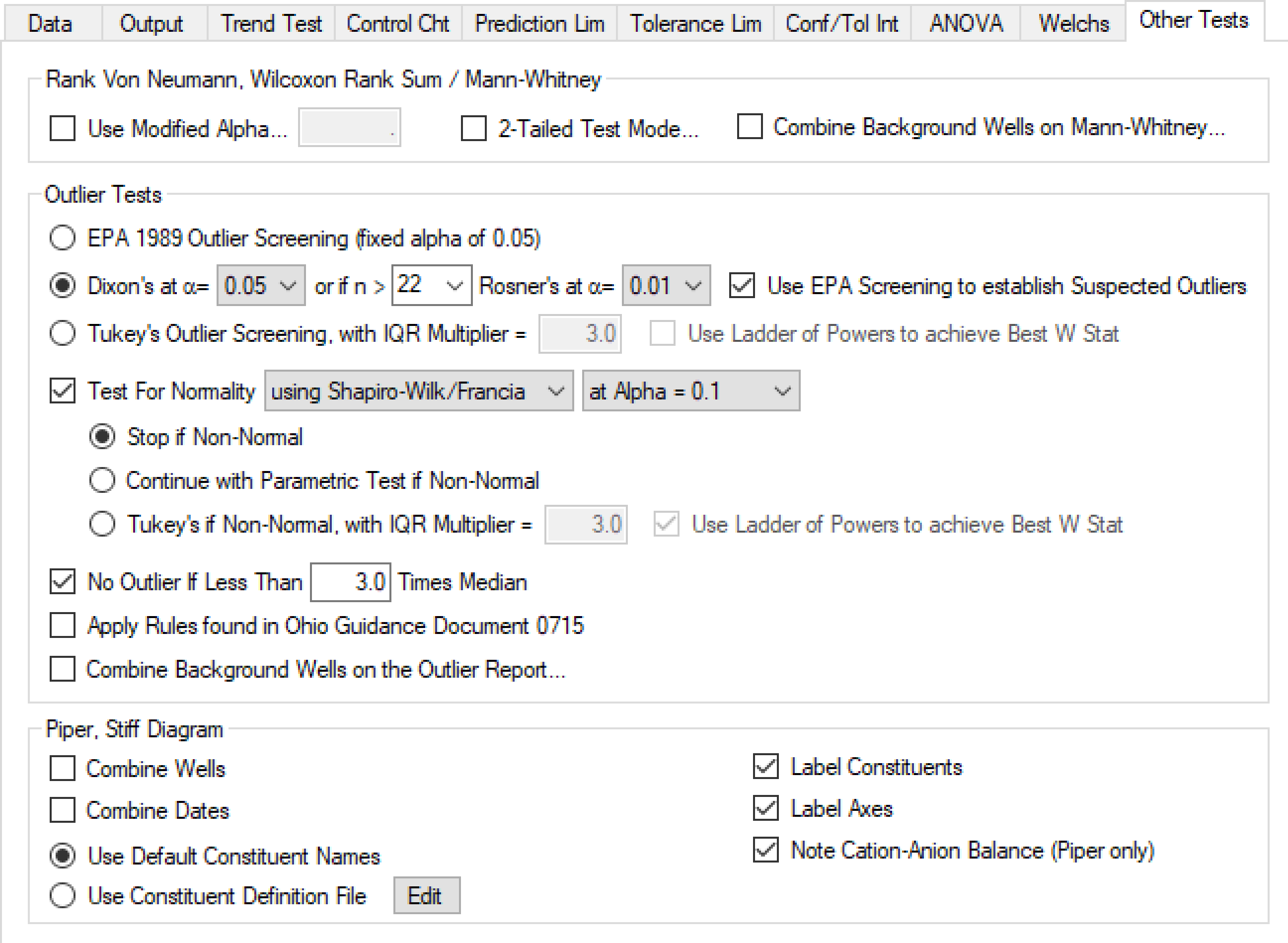
Sanitas™ Configuration Settings


Data
Output
Trend Test
Control Cht
Prediction Lim
Tolerance Lim
Conf/Tol Int
ANOVA
Welchs
Other Tests
Exclude data flags:
i
Observations with flags containing the following characters will be deselected: 'i', 'I',
Data Reading Options
Individual Observations
Mean of Each:
Median of Each:
Month
Season
Non-Detect / Trace Handling...
Setup Seasons...
Automatically Process Resamples...


Data
Output
Trend Test
Control Cht
Prediction Lim
Tolerance Lim
Conf/Tol Int
ANOVA
Welchs
Other Tests
Black and White Output
Four Plots Per Page
Always Combine Data Pages...
Include Tick Marks on Data Page
Use Constituent Name for Graph Title
Draw Border Around Text Reports and Data Pages
Enlarge/Reduce Fonts (Graphs):
100%
Enlarge/Reduce Fonts (Data/Text Reports):
100%
Wide Margins (on reports without explicit setting)
Use CAS# (Not Const. Name)
Truncate File Names to 20 Characters
Include Limit Lines when found in Database...
Show Deselected Data on Time Series
Lighter
Show Deselected Data on all Data Pages
Lighter
Setup Symbols and Colors...
Prompt to Overwrite/Append Summary Tables
Round Limits to 2 Sig. Digits (when not set in data file)
User-Set Scale
Indicate Background Data
Show Exact Dates
Thick Plot Lines
Zoom Factor:
200%
Output Decimal Precision
Less Precision
Normal Precision
More Precision
Store Print Jobs in Multiple Constituent Mode
Store All Print Jobs...
Printer:
Adobe PDF
Printers...


Data
Output
Trend Test
Control Cht
Prediction Lim
Tolerance Lim
Conf/Tol Int
ANOVA
Welchs
Other Tests
Use Modified Alpha...
Test Residuals For Normality (Parametric test only)
using Shapiro-Wilk/Francia
at Alpha = 0.01
Continue Parametric if Unable to Normalize
Transformation (Parametric test only)
Use Ladder of Powers
Natural Log or No Transformation
Never Transform
Use Specific Transformation:
Use Best W Statistic
Plot Transformed Values
Use Non-Parametric Test (Sen's Slope/Mann-Kendall) when Non-Detects Percent >
75
Include
95.
% Confidence Interval around Trend Line
Automatically Remove Outliers (Parametric test only)
Note: there is no "Always Use Non-Parametric" checkbox on this tab because, for consistency with prior versions, Sen's Slope / Mann-Kendall (the non-parametric alternative) is available as a report in its own right, under Analysis->Intrawell->Trend.


Data
Output
Trend Test
Control Cht
Prediction Lim
Tolerance Lim
Conf/Tol Int
ANOVA
Welchs
Other Tests
Test for Normality
using Shapiro-Wilk/Francia
at Alpha = 0.01
Use Non-Parametric Test when Non-Detects Percent >
50
Use
Aitchison's Adjustment
when Non-Detects Percent >
15
Optional Further Refinement: Use
when NDs % >
50
Use Poisson Prediction Limit when Non-Detects Percent >
0
Transformation
Use Ladder of Powers
Natural Log or No Transformation
Never Transform
Use Specific Transformation:
Natural Log
Use Best W Statistic
Plot Transformed Values
Deseasonalize (Intra- and InterWell)
If Seasonality Is Detected
If Seasonality Is Detected Or Insufficient to Test
Always (When Sufficient Data)
Never
Always Use Non-Parametric
Facility
α
Statistical Evaluations per Year:
2
Constituents Analyzed:
7
Downgradient (Compliance) Wells:
7
Sampling Plan
Comparing
Individual Observations
1 of 1
1 of 2
1 of 3
1 of 4
2 of 4 ("Modified California")
IntraWell Other
Stop if Background Trend Detected
at Alpha = 0.05
Plot Background Data
Override Standard Deviation:
Override DF:
Override Kappa:
Automatically Remove Background Outliers
2-Tailed Test Mode...
Show Deselected Data
Lighter
Non-Parametric Limit =
Highest Background Value
Non-Parametric Limit when 100% Non-Detects:
Highest/Second Highest Background Value
Most Recent PQL if available, or MDL
Most Recent Background Value (subst. method)


Data
Output
Trend Test
Control Cht
Prediction Lim
Tolerance Lim
Conf/Tol Int
ANOVA
Welchs
Other Tests
Rank Von Neumann, Wilcoxon Rank Sum / Mann-Whitney
Use Modified Alpha...
2-Tailed Test Mode...
Combine Background Wells on Mann-Whitney...
Outlier Tests
EPA 1989 Outlier Screening (fixed alpha of 0.05)
Dixon's at α= 0.05 or if n > 22 Rosner's at α= 0.01
Use EPA Screening to establish Suspected Outliers
Tukey's Outlier Screening, with IQR Multiplier = 3.0
Use Ladder of Powers to achieve Best W Stat
Test For Normality using Shapiro-Wilk/Francia at Alpha = 0.1
Stop if Non-Normal
Continue with Parametric Test if Non-Normal
Tukey's if Non-Normal, with IQR Multiplier = 3.0
Use Ladder of Powers to achieve Best W Stat
No Outlier If Less Than 3.0 Times Median
Apply Rules found in Ohio Guidance Document 0715
Combine Background Wells on the Outlier Report...
Piper, Stiff Diagram
Combine Wells
Combine Dates
Use Default Constituent Names
Use Constituent Definition File
Edit
Label Constituents
Label Axes
Note Cation-Anion Balance (Piper only)