

# COAL COMBUSTION RESIDUALS (CCR) GROUNDWATER MONITORING AND CORRECTIVE ACTION ANNUAL REPORT

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JANUARY 30, 2022



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## **1.0 INTRODUCTION**

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### **1.1 SITE DESCRIPTION AND REGULATORY APPLICABILITY**

The Choctaw Generation Limited Partnership, LLLP (Choctaw Generation) is located near the City of Ackerman in Choctaw County, Mississippi. Choctaw Generation is in north central Mississippi on a 170-acre site. Choctaw Generation is bounded on the south by Pensacola Road, and is about ½ mile west of US Highway 9. Figure 1 shows the location of the site. Choctaw Generation operates a single unit electrical generation facility designed to generate electricity for dispatch to the Tennessee Valley Authority (TVA) electrical system. The primary boiler fuel is lignite coal. As a result of combusting lignite coal, ash is created and must be disposed or re-purposed. Choctaw Generation owns and operates an existing Ash Management Unit (AMU) for the placement and disposal of ash. The AMU (or CCR unit) is located in the northeastern portion of the property and consists of three (3) cells, as shown in Figure 2. The CCR unit encompasses approximately 64 acres of the Choctaw Generation site.

The site is currently regulated by the Mississippi Department of Environmental Quality (MDEQ) Solid Waste Regulations and Solid Waste Permit No. SW0100040462. The site is now also required to comply with the Groundwater Monitoring and Corrective Action requirements of 40 CFR Part 257, Subpart D – Standards for the Disposal of Coal Combustion Residuals (CCR) in Landfills and Surface Impoundments. As an existing CCR landfill, the site was required to be in compliance with the following groundwater monitoring requirements by October 17, 2017:

- ☐ Install a groundwater monitoring system as required by §257.91;
- ☐ Develop a groundwater sampling and analysis program to include selection of the statistical procedures to be used for evaluating groundwater monitoring data as required by §257.93;
- ☐ Initiate the detection monitoring program to include obtaining a minimum of eight (8) independent samples for each background and downgradient well as required by §257.94(b); and
- ☐ Evaluate groundwater monitoring data for statistically significant increases over background levels for the constituents listed in Appendix III of Subpart D as required by §257.94.

The Choctaw Generation groundwater monitoring system was completed in accordance with the groundwater monitoring performance standards of §257.91 by June 2016. The initial Choctaw Generation CCR unit groundwater monitoring system consisted of three (3) background or upgradient wells and eight (8) downgradient wells. A Groundwater Monitoring Plan was developed in August 2016 in accordance with the groundwater sampling and analysis program requirements of §257.93. The Groundwater Monitoring Plan was updated in January 2019 to address an additional well installed at the site. The current Groundwater Monitoring Plan is available in the Choctaw Generation Operating Record and CCR Web Site. Sampling of the groundwater wells is conducted in accordance with the most current version of the

Groundwater Monitoring Plan. Eight (8) independent samples were collected and analyzed prior to October 17, 2017, initiating the groundwater monitoring program at the site.

Over time, wells have been replaced, added, and removed due to compromised well integrity as well as change in monitoring requirements. These changes are discussed further in Section 3.0. The current Choctaw Generation CCR unit groundwater monitoring system consists of three (3) background or upgradient wells and seven (7) downgradient wells which ensure complete coverage of the CCR unit. A facility diagram showing the monitoring well locations is included as Figure 2.

## **1.2 ANNUAL REPORT REQUIREMENTS**

Choctaw Generation is required to prepare an annual groundwater monitoring and corrective action report (the Annual Report) no later than January 31, 2018, and annually thereafter, and place the report in the Operating Record. The Annual Report is also made available on the CCR Web Site within 30 days of filing the report in the Operating Record. The Annual Report must be maintained in the Operating Record and on the CCR Web Site for at least five (5) years.

Per §257.90(e), 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. At a minimum, the Annual Report must contain the following information, to the extent available:

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



- ❑ 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:
- 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 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;
  - If it was determined that there was a statistically significant increase over background for one or more constituents listed in appendix III to the part pursuant to §257.94(e);
    - Identify those constituents listed in appendix III to this part and the names of the monitoring wells associated with such an increase; and
    - Provide the date when the assessment monitoring program was initiated for the CCR unit.
  - 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:
    - Identify those constituents listed in appendix IV to this part and the names of the monitoring wells associated with such an increase;
    - Provide the date when the assessment of corrective measures was initiated for the CCR unit;
    - Provide the date when the public meeting was held for the assessment of corrective measures for the CCR unit; and
    - Provide the date when the assessment of corrective measures was completed for the CCR unit.
  - Whether a remedy was selected pursuant to §257.97 during the current annual reporting period, and if so, the date of the remedy selection; and
  - Whether remedial activities were initiated or are ongoing pursuant to §257.98 during the current annual reporting period.

To comply with the requirements above, a map of the CCR unit and all upgradient and downgradient monitoring wells that are part of the current groundwater monitoring system are shown on Figure 2. Section 2 contains an overview and discussion of the status and any transition between monitoring programs (i.e., detection monitoring versus assessment monitoring) and the reason such monitoring program is in place. A discussion of the current monitoring well system and any monitoring wells installed or decommissioned is provided in Section 3.0. A summary of the monitoring data obtained during the annual reporting period is provided in Section 4.0. Section 5.0 presents additional information required by §§257.90 through 257.98 to be included in the Annual Report and which is not already addressed in the prior sections. Finally, Section 6.0 summarized actions completed during the reporting year and projects key activities planned for the following reporting year.

### 1.3 PROFESSIONAL ENGINEER CERTIFICATION

The undersigned Registered Professional Engineer is familiar with the requirements of 40 CFR Part 257, Subpart D and certifies that the Groundwater Monitoring and Corrective Action Annual Report was prepared under his/her direct supervision, in accordance with the requirements of 40 CFR 257.90 through 257.98. The undersigned Registered Professional Engineer certifies under penalty of the law that all information and statements provided in this report (including attachments), based on information and belief formed after reasonable inquiry, are true, accurate, and complete.



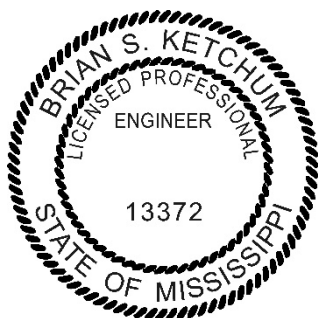
1/30/2022

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Brian S. Ketchum, PE  
Registration Number: 13372  
State of Mississippi

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Date Signed



(Seal)

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## **2.0 OVERVIEW: DETECTION AND ASSESSMENT MONITORING**

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Choctaw Generation began the reporting year and is currently subject to the Assessment Monitoring Program requirements of §257.95, and groundwater monitoring as required by this program is discussed in Section 4.0. A description of both the Detection Monitoring Program and Assessment Monitoring Program is provided below and includes a history of the monitoring as well any changes that occurred during the previous calendar year.

### **2.1 DETECTION MONITORING PROGRAM**

For existing CCR landfills, including the Choctaw Generation AMU, a minimum of eight (8) independent samples from each background and downgradient well must be collected and analyzed for the constituents listed in Appendix III and Appendix IV of 40 CFR 257, Subpart D by no later than October 17, 2017. These constituents are listed in Tables 3-1 and 3-2. After the eight (8) initial sampling events are completed to develop background data, the detection monitoring must be performed on a semiannual basis during the active life of the CCR unit and the post-closure period unless assessment monitoring is triggered.

In accordance with the requirements of the Detection Monitoring Program in §257.94(b), one (1) sample from each background (or upgradient) and downgradient well was analyzed for the seven (7) parameters in Appendix III on February 6-7, 2018. An evaluation of these results indicated statistically significant increases (SSI) above the prediction limits established during background monitoring for the following parameters in the associated wells: chloride (MW-9, MW-12, and MW-16), fluoride (MW-9 and OW-2), sulfate (CCR-3, MW-9, MW-12, MW-16, and OW-2), and TDS (CCR-3, MW-9, and MW-16). Therefore, the requirements of the Assessment Monitoring Program were triggered.

### **2.2 ASSESSMENT MONITORING PROGRAM**

Due to SSI exceedances determined during the initial detection monitoring event of February 6-7, 2018, Choctaw Generation triggered the Assessment Monitoring Program under §257.95. Choctaw Generation conducted the initial annual assessment monitoring event on May 15-16, 2018 for all Appendix IV constituents. Choctaw Generation then conducted the first semiannual assessment monitoring event on September 10-11, 2018 and the subsequent semiannual assessment monitoring event on March 19-20, 2019 for all Appendix III constituents and the ten (10) Appendix IV constituents previously detected during the annual Appendix IV monitoring event. The annual monitoring for all Appendix IV constituents was conducted again on May 29-30, 2019. Based on the sampling results, twelve (12) Appendix IV constituents were detected, adding selenium and molybdenum to the Appendix IV constituents to be monitored during semiannual assessment monitoring events. The next two (2) semiannual assessment monitoring events were conducted on September 10-11, 2019 and March 25-26, 2020. These events included sampling for all Appendix III constituents and those Appendix IV constituents detected during the 2019 annual monitoring



event. The next annual monitoring for all Appendix IV constituents was conducted on May 18, 2020, in which no new Appendix IV constituents were detected requiring no new constituents to be sampled in subsequent semiannual assessment monitoring events. The next two (2) semiannual assessment monitoring events were conducted on September 28, 2020 and March 15-16, 2021. These events included sampling for all Appendix III constituents and those Appendix IV constituents detected during the 2020 annual monitoring event. The next annual monitoring for all Appendix IV constituents was conducted on May 26, 2021, in which no new Appendix IV constituents were detected requiring no new constituents to be sampled in subsequent semiannual assessment monitoring events. Although the 2021 annual monitoring event is required to include Appendix IV constituents only, the laboratory analyzed the samples for boron and calcium (Appendix III) in addition to all Appendix IV constituents. Therefore, these results are included as part of this annual report, and the detected Appendix IV constituents used for subsequent semiannual events in addition to all Appendix III constituents. All current Appendix IV constituents that are sampled during the semiannual assessment monitoring events are listed in Section 4.3. The second semiannual assessment monitoring event for 2021 was conducted on September 8, 2021 and included sampling for all Appendix III constituents and those Appendix IV constituents detected during the 2021 annual monitoring event.

If the concentrations of all constituents listed in Appendix III and Appendix IV are shown to be at or below background concentrations for two consecutive monitoring events, Choctaw Generation may return to detection monitoring. If the concentration of any Appendix III or IV constituent is verified to be above the background values, but all concentrations are below the GWPS, Choctaw Generation must continue assessment monitoring. If one or more Appendix IV constituents are detected at a statistically significant level (SSL) above the GWPS in any monitoring event, Choctaw Generation must implement correction actions. GWPS for all constituents detected during the initial and subsequent assessment monitoring events were established per the procedures in §257.95(h). The Appendix III and Appendix IV results from the sampling conducted during the reporting period, the background concentrations (or “prediction limits”) established under §257.94(b), and the GWPS established under §257.95(d)(2) are included as Appendix D of the Annual Report.

Due to a verified statistically significant increase (SSI) of Appendix IV constituents above the GWPS (lithium in monitoring wells CCR-3 and MW-9 and cobalt in monitoring wells MW-9, MW-12, and MW-15), Choctaw Generation initiated an assessment of corrective measures on January 30, 2019. The Assessment of Corrective Measures (ACM) Report was completed on June 29, 2019, after a 60-day extension.

After review of the monitoring analytical data from the 2019 period, trends in groundwater concentration led to the prospect that the detection of lithium, cobalt, beryllium (not verified), and molybdenum (not verified) at a SSL above the GWPS could have been from an alternate source rather than a potential release of the

CCR unit or associated AMU basin. As discussed in Section 5.2, An Alternate Source Demonstration (ASD) was then successfully completed on December 17, 2019, providing an evidential conclusion that cobalt and lithium detected at SSLs were indeed a result of an alternate source. Due to the successful ASD, Choctaw Generation immediately ceased and discontinued corrective measure activities and continued assessment monitoring. Beryllium was then detected at a SSL above the GWPS in MW-9 during the 2020 annual assessment monitoring event and verified in the second semiannual assessment monitoring event on September 28, 2020. After research and review of analytical data, the ASD was then revised on August 20, 2020 to successfully address beryllium. Therefore, Choctaw Generation has continued in assessment monitoring.

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## **3.0 GROUNDWATER MONITORING SYSTEM**

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### **3.1 CURRENT GROUNDWATER MONITORING SYSTEM**

The owner or operator of a CCR unit must install a groundwater monitoring system that consists of a sufficient number of wells, installed at appropriate locations and depths, to yield groundwater samples from the uppermost aquifer. The system should accurately represent the quality of background groundwater that has not been affected by leakage from a CCR unit (i.e., upgradient wells). In addition, the system should accurately represent the quality of groundwater passing the waste boundary of the CCR unit (i.e., downgradient wells). The downgradient wells should be installed at the waste boundary to ensure detection of groundwater contamination in the uppermost aquifer. The number, spacing, and depths of groundwater monitoring wells within the system were determined based upon site-specific technical information that included an assessment of items such as:

- ☐ Aquifer thickness and groundwater flow direction; and
- ☐ Saturated and unsaturated geologic units and fill materials overlying the uppermost aquifer, materials comprising the uppermost aquifer, and materials comprising the confining unit defining the lower boundary of the uppermost aquifer, including, but not limited to, thicknesses, stratigraphy, lithology, hydraulic conductivities, porosities and effective porosities.

The groundwater monitoring system must include a minimum number of monitoring wells necessary to meet the performance standards and information specified above. The direction of groundwater flow through the CCR unit is to the north-northwest, which has been consistently determined through ongoing solid waste permit groundwater monitoring events. The locations for the monitoring wells were based upon the known direction of groundwater movement. The monitoring wells screen the uppermost laterally continuous aquifer below the base of ash fill. The base of ash fill is at an approximate elevation of 480 feet mean sea level (msl). The zone is screened and monitored at an approximate elevation of 470 feet msl, but varies across the site and through the unit.

The system must contain a minimum of at least one (1) upgradient and three (3) downgradient monitoring wells. The initial Choctaw Generation CCR unit groundwater monitoring system consisted of three (3) background or upgradient wells and eight (8) downgradient wells to ensure complete coverage of the CCR unit, which consists of three (3) ash disposal cells covering approximately 64 acres. An additional downgradient well was added in August 2018 (CCR-5) and three more downgradient wells were installed in May 2019 (i.e., CCR-6, CCR-7, and CCR-8). Additionally, one downgradient well (MW-16) was replaced in May 2019 by MW-17 due to subsidence of the surface soils, which compromised the well integrity. In 2020, MW-15 and MW-17 were removed due to compromised well integrity and the wells located on the mine (i.e., CCR-6, CCR-7, and CCR-8) were removed from the current groundwater system as they are no longer needed for delineation in response to corrective measure requirements. As a result, the current



CCR unit groundwater monitoring system consists of three (3) background or upgradient wells and seven (7) downgradient wells. A map showing the monitoring well locations is included as Figure 2, and a summary of the current wells is included as Table 2-1 below. Monitoring wells were installed according to the guidelines established in the 1994 USEPA Region IV RCRA Subtitle D Training Manual (SDTM, 1994), or other generally accepted guidelines, and are believed to meet the requirements of 40 CFR Part 257, Subpart D. For more detailed procedures related to the installation of the current groundwater monitoring system, refer to the CCR Groundwater Monitoring Plan available in the facility Operating Record and CCR Web Site.

**Table 2-1: Groundwater Monitoring Wells**

Well No.	Background or Down-gradient	Elevation* (ft)	Well Depth (ft)	Well Dia. (inches)
CCR-2	Downgradient	542.50	84.50	4
CCR-3	Downgradient	504.78	53.00	4
CCR-4	Downgradient	505.68	53.00	4
CCR-5	Downgradient	470.46	34.55	4
MW-7	Background (Upgradient)	571.76	56.92	4
MW-9	Downgradient	480.04	21.74	4
MW-12	Downgradient	474.19	19.09	4
MW-13	Background (Upgradient)	584.48	106.00	4
MW-14	Background (Upgradient)	593.84	60.97	4
OW-2	Downgradient	489.40	27.05	4

\*Elevations were re-surveyed on November 14, 2019. Updated elevations will be used to determine groundwater elevation in subsequent monitoring events.

Sections 3.2 and 3.3 discuss changes to the groundwater monitoring system that took place during the reporting period.

### **3.2 MONITORING WELL INSTALLATION**

There were no new wells installed during the 2021 period. For any future well installations, MDEQ will be notified of the groundwater installation project using a State Well Report along with a Soil Boring Log and a Monitoring Well Schematic for each of the groundwater monitoring wells installed.

### **3.3 MONITORING WELL DECOMMISSIONING**

Monitoring wells must be maintained and appropriately cased in a manner that maintains the integrity of the monitoring well borehole throughout the life of the monitoring program. As noted in Section 3.1, the integrity of downgradient wells MW-15 and MW-17 were compromised during the 2020 period. The

monitoring well plug and abandonment project for these wells was then conducted on August 26, 2021 in accordance with the Mississippi water well plugging guidelines, and the well abandonment/decommissioning forms were submitted to MDEQ on August 30, 2021.

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## 4.0 GROUNDWATER MONITORING DATA

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### 4.1 SAMPLING REQUIREMENTS

The monitoring well samples collected for laboratory analysis along with the duplicate samples and field blanks were submitted to Micro-Methods Laboratories in Ocean Springs, Mississippi. Sampling was conducted in accordance with the CCR Groundwater Monitoring Plan. The samples were analyzed for constituents listed in Appendix III and/or Appendix IV of 40 CFR 257, Subpart D (depending on the type of monitoring event) as listed in Tables 4-1 and 4-2 below. Metals were analyzed as total recoverable metals from unfiltered samples.

**Table 4-1: Appendix III Constituents**

<b>40 CFR 257, Subpart D, Appendix III – Constituents for Background and Subsequent Detection and Assessment Monitoring</b>					
Parameter	Analytical Method	Container		Preservative	Holding Time
Boron	200.7	P	500mL	NA	6 months
Calcium	200.7	P	500mL	NA	6 months
Chloride	4500-Cl-B	P	1000mL	NA	28 days
Fluoride	4500-F-D	P	1000mL	NA	28 days
pH	Measured and monitored in the field.				
Sulfate	4110B	P	1000mL	NA	28 days
TDS	2540C	P	1000mL	NA	7 days

**Table 4-2: Appendix IV Constituents**

<b>40 CFR 257, Subpart D, Appendix IV – Constituents for Background and Assessment Monitoring</b>					
Parameter	Analytical Method	Container		Preservative	Holding Time
Antimony	200.8	P	500mL	NA	6 months
Arsenic	200.8	P	500mL	NA	6 months
Barium	200.8	P	500mL	NA	6 months
Beryllium	200.8	P	500mL	NA	6 months
Cadmium	200.8	P	500mL	NA	6 months
Chromium	200.8	P	500mL	NA	6 months
Cobalt	200.8	P	500mL	NA	6 months
Fluoride	4500-F-C	P	1000mL	NA	28 days
Lead	200.8	P	500mL	NA	6 months
Lithium	200.7	P	500mL	NA	6 months
Mercury	245.1	P	500mL	NA	28 days
Molybdenum	200.8	P	500mL	NA	6 months
Selenium	200.8	P	500mL	NA	6 months



<b>40 CFR 257, Subpart D, Appendix IV – Constituents for Background and Assessment Monitoring</b>					
Parameter	Analytical Method	Container		Preservative	Holding Time
Thallium	200.8	P	500mL	NA	6 months
Radium 226/228	901.1	P	1000mL	NA	NA

T = Teflon, P = Plastic, G = Glass, NA = Not Applicable

## 4.2 GROUNDWATER ELEVATION AND FLOW

Groundwater elevation is measured in each monitoring well immediately prior to purging each time groundwater is sampled. Table 4-3 provides a summary of the groundwater elevation recorded for each well during each of the monitoring events. A potentiometric surface map was developed for each monitoring event based on the measured static water levels and the top-of-case (TOC) elevations. Also, the rate of groundwater flow is determined for each event and the direction of flow is summarized in the table and provided on the potentiometric surface maps included in Appendix A. Groundwater flow velocity ( $v$ ) is estimated using the hydraulic conductivity ( $K$ ) of the groundwater zone, the effective porosity ( $\eta_e$ ), and the hydraulic gradient ( $dh/dl$ ). The groundwater flow velocity in feet/year is estimated using the following

equation: 
$$v = \frac{K}{\eta_e} \left( \frac{dh}{dl} \right).$$

Conductivity and porosity are dependent on the soil type in the saturated zone. Based on boring logs, the soils in the screened saturated zone are predominantly silt, clay, and silty-clay units. These Clayey Wilcox sediments were investigated and found to have hydraulic conductivities generally less than  $1.0 \times 10^{-6}$  cm/sec, and in many cases  $1.0 \times 10^{-8}$  cm/sec or less, as noted in the Special/Industrial Waste Permit Application prepared by Malcolm Pirnie (March 1998). As a conservative measure of groundwater flow the highest permeability measured at site of  $2.0 \times 10^{-5}$  cm/sec has been used. An effective porosity of 0.44 was used based on a mix of silty clay and clay of varying plasticity found in the saturated zone. Previously, the hydraulic gradient was determined for each monitoring event using the difference in groundwater elevations at upgradient monitoring well, MW-14, and downgradient monitoring well, MW-15, which are approximately 3,025 feet apart. Since the integrity of the downgradient well, MW-15, was compromised, the hydraulic gradient is now determined for each monitoring event using an average of the difference in groundwater elevations at upgradient well, MW-14, and downgradient monitoring well, CCR-2, which are approximately 1,800 feet apart, and of the difference in groundwater elevations at upgradient well, MW-13, and downgradient monitoring well, CCR-4, which are approximately 1,860 feet apart.

As noted in Table 4-3 and from the potentiometric surface maps (provided in Appendix A), groundwater in the vicinity of the CCR unit flows north-northwest. Also, as noted during the background sampling period, groundwater elevation changed very little in each monitoring well sampled during the 2021 reporting period, indicating that seasonal variability does not significantly impact groundwater at the site. Groundwater flow

is relatively slow due to the low hydraulic conductivity of the soils and was calculated to be 1.5 feet per year based on the 2021 data. This is consistent with the flows calculated for previous monitoring events, as shown in Table 4-3.

### **4.3 GROUNDWATER SAMPLING RESULTS**

The analytical results from the collected samples, the chain-of-custody, and the laboratory quality assurance and quality control (QA/QC) information are provided in Appendix B. In addition to the groundwater samples taken from each of the monitoring wells, a duplicate sample and field blank were collected and analyzed for the required constituents. Temperature, pH, conductivity, turbidity, purge volume, and elapsed purge time were monitored while purging each well. The field data collected while purging and sampling each well using the low stress purging and sampling methodology is included in Appendix C. The data includes monitored field parameters (pH, temperature, turbidity, conductivity), water levels, well depth, drawdown, purge rate, purge volume, and purge time.

The summary of results for sampling conducted during the reporting year is available in Appendix D. For those constituents not detected during a given monitoring event, the value is indicated as “less than” (or <) the minimum reporting level (MRL). Results from the upgradient wells were used to establish the background groundwater quality for each constituent, which is the interwell prediction limit determined using the approved statistical procedures. Because statistically significant increases (SSI) of constituents were verified during the initial detection monitoring event in 2018, GWPS were established per the requirements of §257.95(d)(2) for Appendix IV constituents and are compared to current and future sampling results.

A semiannual assessment monitoring event was conducted on March 15-16, 2021. During this event, all Appendix III constituents and those Appendix IV constituents detected during monitoring conducted May 18, 2020, were analyzed. The following Appendix IV constituents exceeded the GWPS at the well locations noted below for this monitoring event:

- Beryllium: MW-9
- Cobalt: CCR-3, CCR-5, MW-9, and MW-12
- Lithium: CCR-3, CCR-5, and MW-9

The annual monitoring for all Appendix IV constituents, required by §257.95(b), was conducted May 26, 2021. As mentioned in Section 2.2, although the annual monitoring event is required to include Appendix IV constituents only, the laboratory analyzed the samples for boron and calcium (Appendix III) in addition to all Appendix IV constituents. Therefore, these results are included as part of this annual report, and the detected Appendix IV constituents used for subsequent semiannual events in addition to all Appendix III constituents. Based on these results, the following Appendix IV constituents will be monitored during the next two semiannual assessment monitoring events:

- Antimony
- Arsenic
- Barium
- Beryllium
- Cadmium
- Chromium
- Cobalt
- Fluoride
- Lead
- Lithium
- Molybdenum
- Selenium
- Radium 226 and 228 combined

Additionally, the results from this annual event were compared to the GWPS. The following Appendix IV constituents exceeded the GWPS at the well locations noted below for this monitoring event:

- Beryllium: MW-9
- Cobalt: CCR-3, CCR-5, MW-9, and MW-12
- Lithium: CCR-3 and MW-9

The next semiannual assessment monitoring event was conducted on September 8, 2021. The following Appendix IV constituents exceeded the GWPS at the well locations noted below for this monitoring event:

- Cobalt: CCR-5, MW-9, and MW-12
- Lithium: CCR-3, CCR-5, and MW-9

Although antimony, cadmium, chromium, lead, and molybdenum were not detected in the 2021 annual monitoring event, these Appendix IV constituents will still be monitored during the semiannual events since they were detected in previous assessment monitoring events. Antimony, cadmium, chromium, mercury, molybdenum, and thallium were not detected in any of the monitoring events during the 2021 period. Arsenic was detected in CCR-5 in the first two events. The detected concentrations were an order of magnitude below the GWPS, and the location of the well, the property boundary, suggests that arsenic is not a result of site operations. Barium is naturally occurring and has been detected in all monitoring wells, both upgradient and downgradient. However, the results have generally been at least an order of magnitude lower than the GWPS and have shown decreasing trends in most wells. Fluoride was detected in one of the three upgradient wells, MW-7, as well as three (3) of the downgradient wells, CCR-3, MW-9, and OW-2. Therefore, there may be sources of naturally occurring fluoride in the area. Concentrations of fluoride in both upgradient and downgradient wells are approximately an order of magnitude below the



GWPS, with trends varying across the wells. Lead was detected in one (1) monitoring well, MW-9, and the concentration was an order of magnitude below the GWPS. Selenium was detected during one (1) monitoring event in two (2) downgradient wells, CCR-5 and MW-9. The concentrations were an order of magnitude below the GWPS and were below the detection limit during the 2021 semiannual monitoring events.

Cobalt exceeded the GWPS during the 2021 assessment monitoring events in four (4) downgradient wells, including CCR-3, CCR-5, MW-9, and MW-12. Cobalt has been prevalent in these wells, including the background sampling. Lithium exceeded the GWPS three (3) wells, CCR-3, CCR-5, and MW-9, during the both 2021 semiannual assessment monitoring events, and in two (2) wells, CCR-3 and MW-9, during the annual assessment monitoring event in May. The concentrations of lithium in CCR-3 declined over the 2021 period while the concentration in MW-9 is trending down compared to historical concentrations. Lithium concentrations in CCR-5 appear to be relatively stable and detected concentrations are only slightly above the GWPS. Lithium was also detected in OW-2 during the last assessment monitoring event, but the detection level was below both the prediction limit and the GWPS for this constituent. Beryllium exceeded the GWPS, which is only 5 ppb, in MW-9 in the first two (2) assessment monitoring events of 2021. The beryllium concentration in MW-9 dropped below the GWPS for the second semiannual monitoring event and has not been verified or detected in any other well during any monitoring event.

**Table 4-3: Groundwater Elevation (feet) and Flow Rate (feet/yr)**

Date	CCR-2	CCR-3	CCR-4	CCR-5	CCR-6	CCR-7	CCR-8	MW-7	MW-9	MW-12	MW-13	MW-14	MW-15	MW-16	MW-17	OW-2	Flow Rate	Flow Direction
<b>Background Monitoring</b>																		
7/26-27/16	488.60	473.59	478.46					538.60	471.49	466.92	499.10	564.91	477.50	480.26		476.80	1.4	NNW
8/22-23/16	488.63	473.33	478.41					538.03	471.74	466.97	498.85	563.94	477.19	480.49		476.50	1.3	NNW
9/12-13/16	488.22	472.96	478.36					538.02	470.97	466.09	498.82	563.12	476.74	480.15		476.20	1.3	NNW
10/17-18/16	488.05	472.69	478.61					537.93	471.17	465.56	498.48	560.56	476.19	479.24		476.00	1.3	NNW
11/9-10/16	487.69	472.41	478.16					537.52	471.32	465.45	497.83	559.08	475.78	479.10		475.50	1.3	NNW
11/28-29/16	487.55	472.38	478.17					536.13	471.47	465.97	497.60	560.51	476.16	479.61		475.64	1.3	NNW
2/8-9/17	488.17	474.06	478.95					537.95	473.34	471.27	498.21	563.49	478.87	481.70		477.60	1.3	NNW
3/29-30/17	488.36	474.82	478.81					537.74	472.44	470.17	498.58	565.88	478.83	486.60		477.40	1.4	NNW
<b>Detection Monitoring</b>																		
2/6-7/18	489.83	475.11	478.84					537.58	473.60	471.47	499.40	562.15	478.92	481.87		477.49	1.3	NNW
<b>Assessment Monitoring</b>																		
5/15-16/18	489.73	476.19	478.98					538.66	472.82	468.07	501.08	566.41	478.93	481.36		478.19	1.4	NNW
9/10-11/18	488.34	473.95	478.28	460.73				537.84	472.98	468.60	499.16	562.19	477.16	480.72		476.59	1.3	NNW
3/19-20/19 <sup>(1)</sup>	491.92	479.69	481.38	463.41				538.06	482.28	470.24	521.24	565.69	480.70	NS		478.80	1.3	NNW
5/29-30/19 <sup>(1)</sup>	491.62	478.76	480.84	462.75	459.91	487.14	462.79	538.47	471.56	466.67	521.42	565.63	480.20	NS	478.65	478.98	1.3	NNW
9/10-11/19 <sup>(1)</sup>	491.28	479.91	480.43	462.02	458.71	487.01	462.04	538.35	470.61	466.33	521.15	565.16	478.83	NS	477.73	477.57	1.3	NNW
3/25-26/20 <sup>(2)</sup>	493.83	479.8	481.27	463.93	NS	NS	NS	541.78	472.53	470.5	525.6	565.94	NS	NS	479.84	479.48	1.5	NNW
5/18/20 <sup>(2)</sup>	491.75	477.25	480.78	463.05	NS	NS	NS	538.71	471.23	468.88	526.48	565.59	NS	NS	480.64	479.36	1.5	NNW
9/28/20 <sup>(2)</sup>	493.95	478	480.41	463.57	NS	NS	NS	537.85	471.24	468.51	525.58	565.01	NS	NS	NS	478.59	1.5	NNW
3/15-16/21 <sup>(2)</sup>	494.5	479.93	480.78	463.1	NS	NS	NS	537.61	471.54	469.19	525.68	565.52	NS	NS	NS	479.05	1.5	NNW
5/26/21 <sup>(2)</sup>	494.45	479.28	479.9	462.75	NS	NS	NS	537.56	471.32	467.29	526.34	565.12	NS	NS	NS	478.94	1.5	NNW
9/8/201 <sup>(2)</sup>	494.35	479.58	480.83	464.45	NS	NS	NS	536.84	472.46	468.89	525.55	565.33	NS	NS	NS	478.9	1.5	NNW

(1) TOC elevations were resurveyed on November 14, 2019 and groundwater elevations were revised using the correct TOC elevations.

(2) Flow rate calculated using an average hydraulic gradient between MW-14 and CCR-2 as well as MW-13 and CCR-4.

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## 5.0 ADDITIONAL INFORMATION

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### 5.1 ALTERNATIVE MONITORING FREQUENCY

Based on the availability of groundwater, an alternative monitoring frequency may be proposed under both the detection monitoring program and the assessment monitoring program per §§257.94(d) and 257.95(c), respectively. In lieu of semiannual sampling, sampling may be conducted less frequently but no less than annually. Choctaw Generation must obtain a certification from a qualified professional engineer stating that the demonstration for an alternative groundwater sampling and analysis frequency meets the requirements of §§257.94(d) or 257.95(c). Choctaw Generation must include the demonstration providing the basis for the alternative monitoring frequency and the certification by a qualified professional engineer in the Annual Report. *With this Annual Report, Choctaw Generation is not making an alternative monitoring frequency demonstration.*

### 5.2 DEMONSTRATION OF INVALID STATISTICALLY SIGNIFICANT INCREASE

Within 90 days of finding that any of the Appendix III or IV constituents have been detected at a statistically significant level, Choctaw Generation may 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. Such demonstration is allowed by both the detection monitoring program and assessment monitoring program per §257.94(e)(2) and §257.95(g)(3), respectively. 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, Choctaw Generation must continue monitoring in accordance with the detection or assessment monitoring program, as applicable. Choctaw Generation must also include the demonstration in the Annual Report, as well as the certification by a qualified professional engineer. *With this Annual Report, Choctaw Generation is not demonstrating that any additional constituents were detected at a SSL above the GWPS as a result from an alternate source.* A history of the ASD is provided below.

Sampling to evaluate the composition of the natural soil at the site was conducted on October 29, 2019, which included drilling soil borings in three (3) locations at the Choctaw Generation site. The samples were collected at a variety of depths ranging from four (4) to twenty (20) feet to capture the natural, differing geologies in the soil and material near and within the monitored aquifer. Based on review of the analytical results, the initial ASD was developed and certified on December 17, 2019, demonstrating that elevated lithium and cobalt concentrations above each GWPS were a result of natural variation in the groundwater quality as a result of the aquifer material rather than a potential release from the CCR unit. Beryllium was then detected above the GWPS in March 2020 and then verified in the following event in May of 2020. In response, the ASD was revised and certified on August 20, 2020, demonstrating that the elevated beryllium

concentration detected above the GWPS was a result of natural variation in the groundwater quality as a result of the aquifer material rather than a potential release from the CCR unit. The initial and revised ASD were submitted with each respective annual report and can be found in the Choctaw Generation Operating Record and on the CCR Website.

It should be noted, the molybdenum exceedance was never confirmed or verified upon resampling events; therefore, molybdenum is not believed to have exceeded the GWPS. As a result of the successful revised ASD, Choctaw Generation has continued in assessment monitoring.

### **5.3 TIME EXTENSION FOR CORRECTIVE MEASURES ASSESSMENT**

An assessment of corrective measures must be completed within 90 days of finding any Appendix IV constituent has been detected at a statistically significant level exceeding the GWPS. A demonstration of need for up to an additional 60 days to complete this assessment may be made as a result of site-specific conditions or circumstances. Certification from a qualified professional engineer attesting that this demonstration is accurate must be provided, and both the demonstration and certification must be included in the Annual Report. *With this Annual Report, Choctaw Generation is not requesting additional time to assess corrective measures, since such assessment was not required during the period covered by the report.*

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## **6.0 CONCLUSION**

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### **6.1 SUMMARY OF KEY ACTIONS COMPLETED**

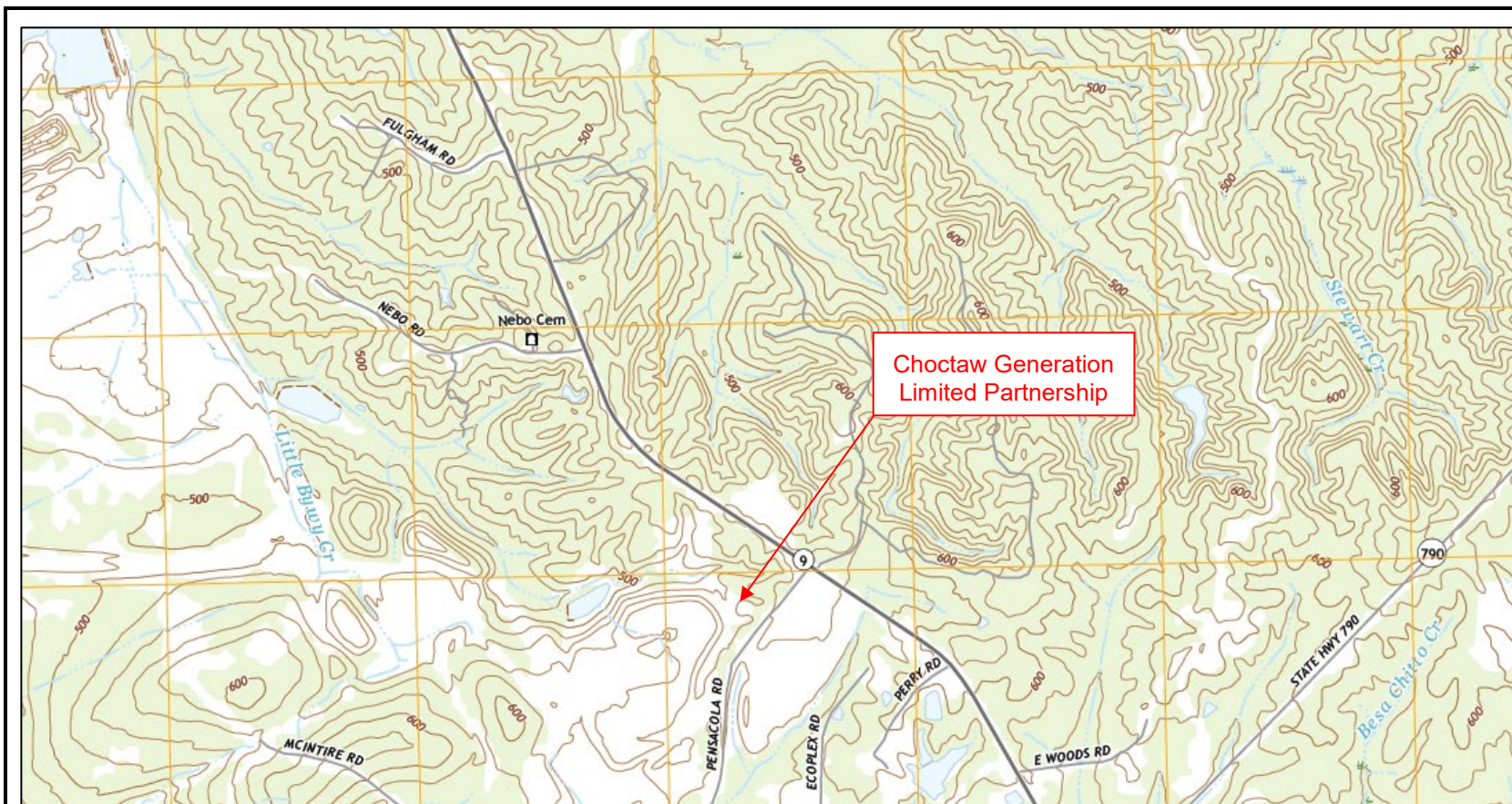
During the reporting period, two semiannual assessment monitoring events were conducted, revealing continued exceedances of the GWPS for cobalt, lithium, and beryllium. These constituent exceedances are detailed in the ASD. There were no new exceedances of the GWPS; therefore, assessment monitoring was continued. Additionally, monitoring wells MW-15 and MW-17 were properly decommissioned as described in Section 3.3.



### **6.2 KEY ACTIVITIES FOR UPCOMING YEAR**

During calendar year 2022, Choctaw Generation anticipates conducting at least two (2) semiannual monitoring events and an annual Appendix IV monitoring event in accordance with the assessment monitoring program as outlined by §257.95(g). If any constituent, other than those addressed by the revised ASD, is detected at a SSL above the GWPS, the ASD will be amended or corrective measures will be initiated to address the constituents of concern.

## **FIGURE 1**

SITE LOCATION MAP



<div></div> <div><u>Legend:</u></div> <div><u>Source:</u> USGS US Topo (12/30/2020)</div>	Drawn By: CBG	Checked By: BSK	<div> ENVIRONMENTAL COMPLIANCE &amp; SAFETY, INC.</div> <div>P.O. Box 356 Sherman, Mississippi 38869 (662) 840-5945</div>
	Date: 1/17/2022	Scale: 1:24,000	
	Project No.:	Drawing No: N/A	
	Choctaw Generation Limited Partnership 2391 Pensacola Road Ackerman, Mississippi		
	Figure 1: Site Location Map		



## **FIGURE 2**

FACILITY DIAGRAM





**ECS**  
ENVIRONMENTAL COMPLIANCE & SAFETY, INC.  
P.O. Box 356  
Sherman, MS 38869  
(662) 840-5945

Choctaw Generation Limited Partnership, L.L.P.  
2391 Pensacola Road  
Ackerman, Mississippi

Facility Diagram

Figure 2

Project No.:

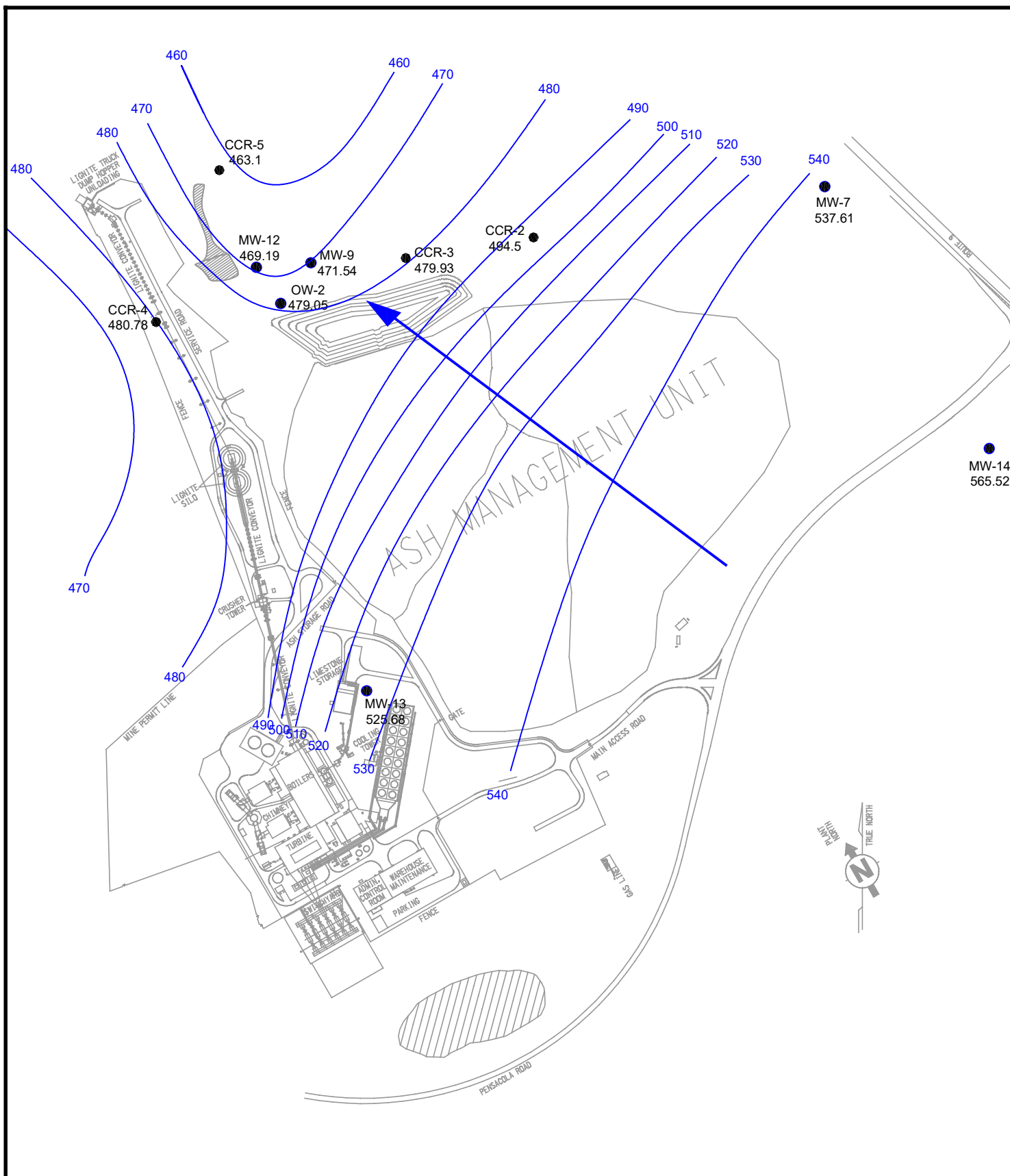
Legend:  
Monitoring Well  MW-14  
E=593.84

Scale: Not Determined  
Drawn By: JTB Revised By: CBG  
Date: 8/27/2018 Date: 1/17/2022



## **APPENDIX A**

### POTENTIOMETRIC SURFACE MAPS



P.O. Box 356  
Sherman, MS 38869  
(662) 840-5945

Choctaw Generation Limited Partnership, L.L.P.  
2391 Pensacola Road  
Ackerman, Mississippi

Potentiometric Surface Map (March 2021 GW Event)

Figure 1

Project No.:

**Legend:**

Monitoring Well Designation  
and Groundwater Elevation (feet)

MW-7  
537.61

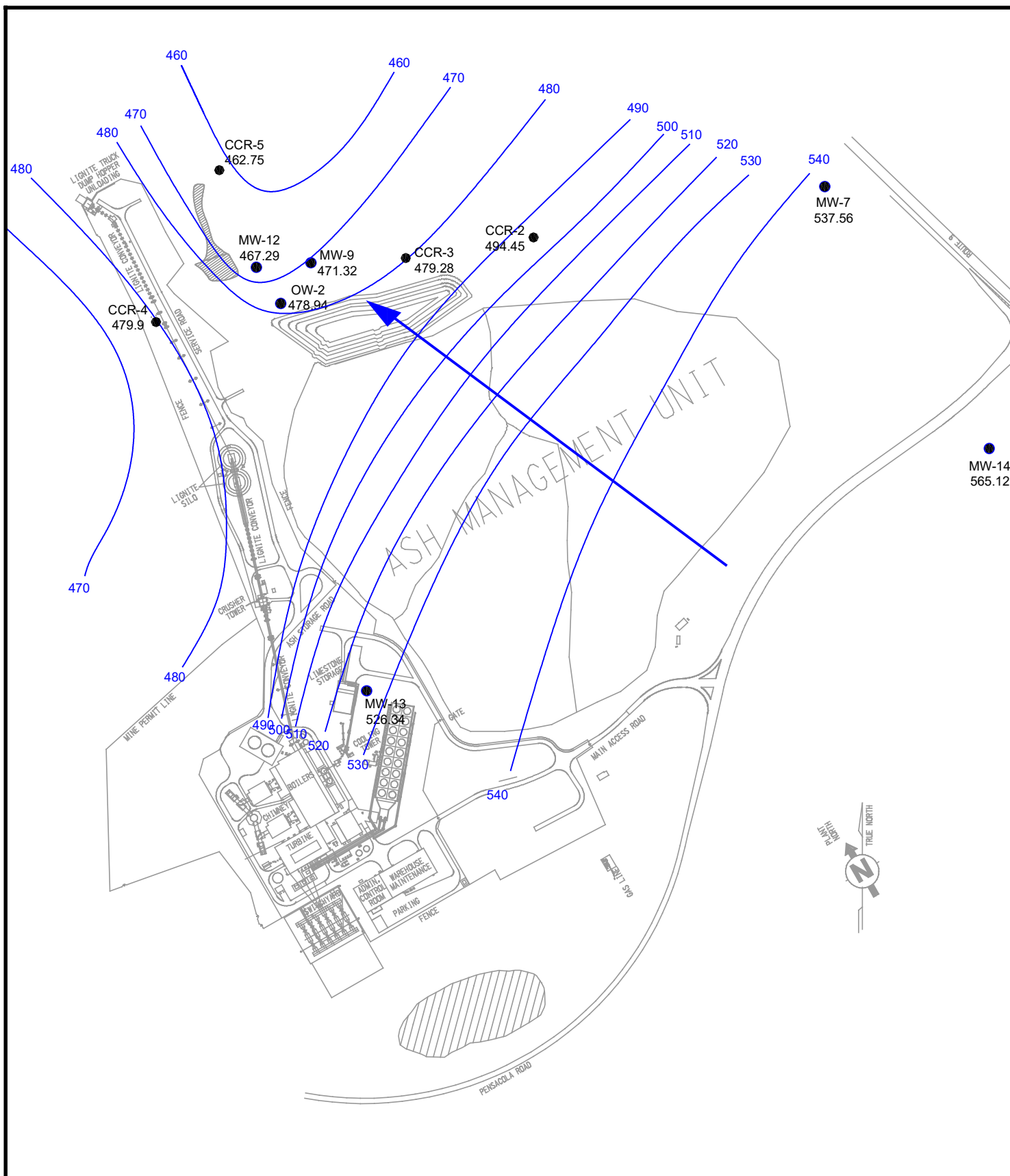
Groundwater Elevation Contours (ft)

500

Scale: NTS

Drawn By: GJL (modified by CBG)

Date: 1/18/2022



P.O. Box 356  
Sherman, MS 38869  
(662) 840-5945

Choctaw Generation Limited Partnership, L.L.P.  
2391 Pensacola Road  
Ackerman, Mississippi

Potentiometric Surface Map (May 2021 GW Event)

Figure 1

Project No.:

**Legend:**

Monitoring Well Designation  
and Groundwater Elevation (feet)

Groundwater Elevation Contours (ft)

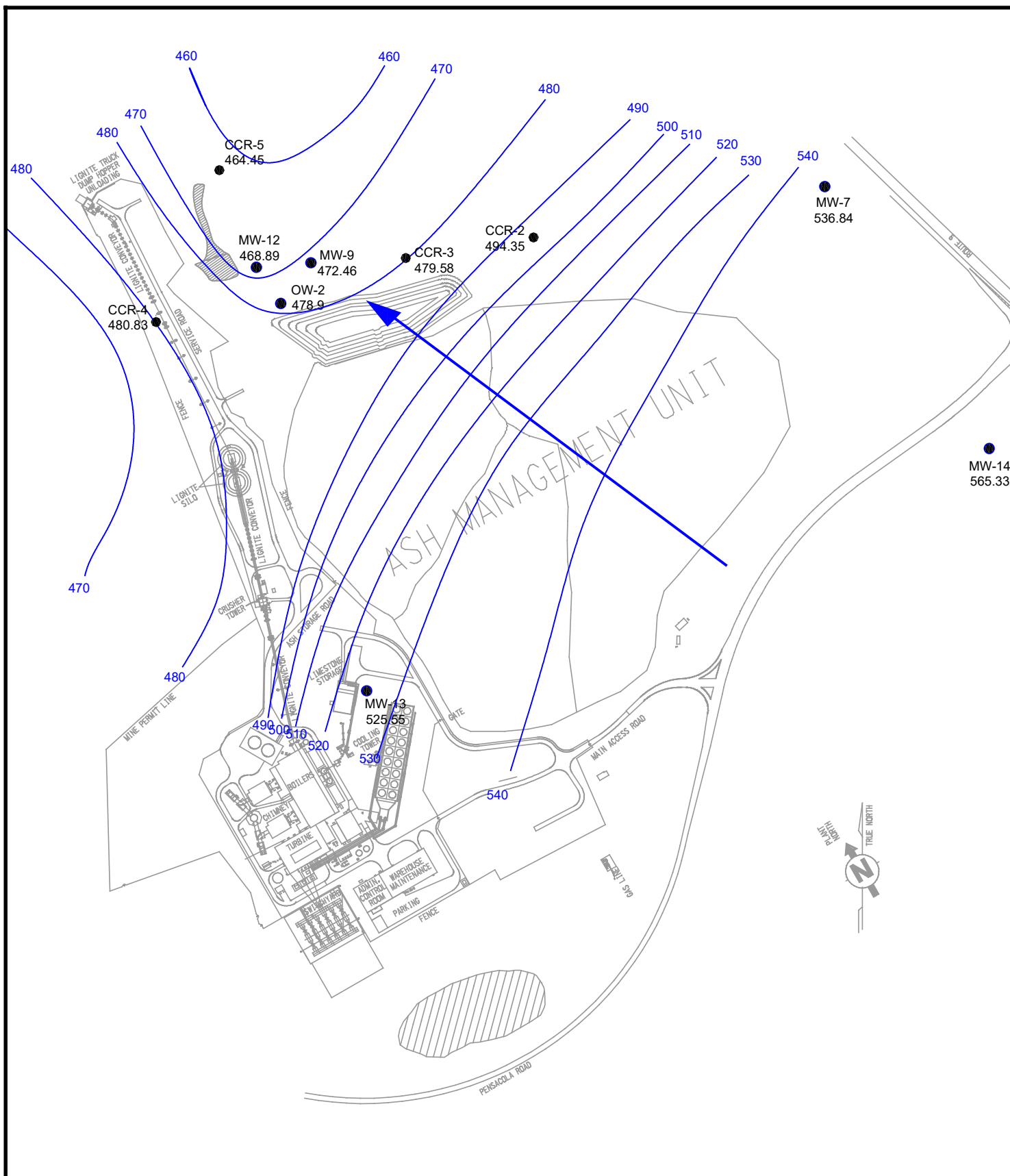
MW-7  
537.56

500

Scale: NTS

Drawn By: GJL (modified by CBG)

Date: 1/18/2022



P.O. Box 356  
Sherman, MS 38869  
(662) 840-5945

Choctaw Generation Limited Partnership, L.L.L.P.  
2391 Pensacola Road  
Ackerman, Mississippi

Potentiometric Surface Map (September 2021 GW Event)

Figure 1

Project No.:

**Legend:**

Monitoring Well Designation  
and Groundwater Elevation (feet)

MW-7  
536.84

Groundwater Elevation Contours (ft)

500

Scale: NTS

Drawn By: GJL (modified by CBG)

Date: 1/18/2022

## **APPENDIX B**

ANALYTICAL RESULTS AND CHAIN-OF-CUSTODY FORMS





**Mailing Address:**  
PO Box 1410  
Ocean Springs, MS  
39566-1410

6500 Sunplex Drive  
Ocean Springs, MS 39564  
228.875.6420 Phone  
228.875.6423 Fax

April 13, 2021

Jim Ward

**Work Order # :** 2103321

Choctaw Generation LP  
2391 Pensacola Rd.  
Ackerman, MS 39735  
*RE: CGLP CCR*

**Purchase Order #:**

Enclosed are Micro-Methods Laboratory, Inc. results of analyses performed on samples received 03/17/2021 10:00. If you have any questions concerning this report, please feel free to contact the office.

Sincerely,

Mitch Spicer

Lab Director  
Micro-Methods Laboratory, Inc.



**DISCLAIMER**

*The results only relate to the items or the sample and/or samples received by the laboratory. This report shall not be reproduced except in full, without the approval of the laboratory. All NELAP certified test methods performed meet the requirements of NELAC 2009 Standards. Any variances and/or deviations specific to this analytical report are referenced in the lab report using qualifiers and detailed explanations found in the case narrative.*

Choctaw Generation LP  
2391 Pensacola Rd.  
Ackerman MS, 39735Project: CGLP CCR  
Project Number: [none]  
Project Manager: Jim WardReported:  
04/13/2021 13:02

## ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date/Time Sampled	Sampled by	Date/Time Received
MW-9	2103321-01	Water	03/15/2021 17:26	Kirk Shelton	03/17/2021 10:00
OW-2	2103321-02	Water	03/15/2021 16:51	Kirk Shelton	03/17/2021 10:00
MW-13	2103321-03	Water	03/16/2021 11:56	Kirk Shelton	03/17/2021 10:00
MW-7	2103321-04	Water	03/16/2021 13:40	Kirk Shelton	03/17/2021 10:00
MW-14	2103321-05	Water	03/16/2021 14:20	Kirk Shelton	03/17/2021 10:00
Field Blank	2103321-06	Water	03/16/2021 13:33	Kirk Shelton	03/17/2021 10:00
Duplicate	2103321-07	Water	03/15/2021 00:00	Kirk Shelton	03/17/2021 10:00
MW-12	2103321-08	Water	03/15/2021 16:20	Kirk Shelton	03/17/2021 10:00
CCR-2	2103321-09	Water	03/15/2021 18:05	Kirk Shelton	03/17/2021 10:00
CCR-3	2103321-10	Water	03/15/2021 18:35	Kirk Shelton	03/17/2021 10:00
CCR-4	2103321-11	Water	03/16/2021 10:43	Kirk Shelton	03/17/2021 10:00
CCR-5	2103321-12	Water	03/16/2021 09:40	Kirk Shelton	03/17/2021 10:00

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR  
 Project Number: [none]  
 Project Manager: Jim Ward

 Reported:  
 04/13/2021 13:02

**Sample Receipt Conditions**

Date/Time Received: 3/17/2021 10:00:00AM

Shipped by: Fed Ex

Received by: Sarah E. Tomek

Submitted by: Kirk Shelton

Date/Time Logged: 3/17/2021 10:33:00AM

Logged by: Sarah E. Tomek

Cooler ID: #1109

Receipt Temperature: 0.6 °C

<i>Cooler Custody Seals Present</i>	No	<i>Received on Ice but Not Frozen</i>	Yes
<i>Containers Intact</i>	Yes	<i>No Ice, Short Trip</i>	No
<i>COC/Labels Agree</i>	Yes	<i>Obvious Contamination</i>	No
<i>Labels Complete</i>	Yes	<i>Rush to meet HT</i>	No
<i>COC Complete</i>	Yes	<i>Received within HT</i>	Yes
<i>Volatile Vial Headspace &gt;6mm</i>	No	<i>Proper Containers for Analysis</i>	Yes
<i>Field Sheet/Instructions Included</i>	No	<i>Correct Preservation</i>	Yes
<i>Samples Rejected/Documented in Log</i>	No	<i>Adequate Sample for Analysis</i>	Yes
<i>Temp Taken From Temp Blank</i>	Yes	<i>Sample Custody Seals Present</i>	Yes
<i>Temp Taken From Sample Container</i>	No	<i>Samples Missing from COC/Cooler</i>	No
<i>Temp Taken From Cooler</i>	No		
<i>COC meets acceptance criteria</i>	Yes		

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR  
 Project Number: [none]  
 Project Manager: Jim Ward

 Reported:  
 04/13/2021 13:02

 Cooler ID: #1119

 Receipt Temperature: 0.4 °C

<i>Cooler Custody Seals Present</i>	No	<i>Received on Ice but Not Frozen</i>	Yes
<i>Containers Intact</i>	Yes	<i>No Ice, Short Trip</i>	No
<i>COC/Labels Agree</i>	Yes	<i>Obvious Contamination</i>	No
<i>Labels Complete</i>	Yes	<i>Rush to meet HT</i>	No
<i>COC Complete</i>	Yes	<i>Received within HT</i>	Yes
<i>Volatile Vial Headspace &gt;6mm</i>	No	<i>Proper Containers for Analysis</i>	Yes
<i>Field Sheet/Instructions Included</i>	No	<i>Correct Preservation</i>	Yes
<i>Samples Rejected/Documented in Log</i>	No	<i>Adequate Sample for Analysis</i>	Yes
<i>Temp Taken From Temp Blank</i>	Yes	<i>Sample Custody Seals Present</i>	Yes
<i>Temp Taken From Sample Container</i>	No	<i>Samples Missing from COC/Cooler</i>	No
<i>Temp Taken From Cooler</i>	No		
<i>COC meets acceptance criteria</i>	Yes		

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR  
 Project Number: [none]  
 Project Manager: Jim Ward

 Reported:  
 04/13/2021 13:02

 Cooler ID: #1122

 Receipt Temperature: 1.3 °C

<i>Cooler Custody Seals Present</i>	No	<i>Received on Ice but Not Frozen</i>	Yes
<i>Containers Intact</i>	Yes	<i>No Ice, Short Trip</i>	No
<i>COC/Labels Agree</i>	Yes	<i>Obvious Contamination</i>	No
<i>Labels Complete</i>	Yes	<i>Rush to meet HT</i>	No
<i>COC Complete</i>	Yes	<i>Received within HT</i>	Yes
<i>Volatile Vial Headspace &gt;6mm</i>	No	<i>Proper Containers for Analysis</i>	Yes
<i>Field Sheet/Instructions Included</i>	No	<i>Correct Preservation</i>	Yes
<i>Samples Rejected/Documented in Log</i>	No	<i>Adequate Sample for Analysis</i>	Yes
<i>Temp Taken From Temp Blank</i>	Yes	<i>Sample Custody Seals Present</i>	Yes
<i>Temp Taken From Sample Container</i>	No	<i>Samples Missing from COC/Cooler</i>	No
<i>Temp Taken From Cooler</i>	No		
<i>COC meets acceptance criteria</i>	Yes		

Choctaw Generation LP  
2391 Pensacola Rd.  
Ackerman MS, 39735Project: CGLP CCR  
Project Number: [none]  
Project Manager: Jim WardReported:  
04/13/2021 13:02**CASE NARRATIVE SUMMARY**

*All reported results are within Micro-Methods Laboratory, Inc. defined laboratory quality control objectives unless detailed in narrative summary or identified as qualifications. NOTE: All results listed on this report are calculated on a wet weight basis (as received by the laboratory) unless otherwise noted in the analysis qualification sections.*

**Summary Comments:**

See attached results from Sub-Contract Laboratory

**Total Metals-EPA 200.7 Rev 4.4****Qualifiers:**

L2 LCS and/or LCSD Recovery below acceptance limit.

**Lithium 610.362 [Axial]**  
1C19035-BSD1**Total Metals-EPA 200.8 Rev 5.4****Qualifiers:**

CC-01 CCV exceeds acceptance limits. Sample results reported from this calibration were below the reporting limits.

**Selenium [NG]**  
2103321-07[Duplicate], 2103321-08[MW-12], 2103321-10[CCR-3], 2103321-11[CCR-4], 2103321-12[CCR-5]

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR  
 Project Number: [none]  
 Project Manager: Jim Ward

 Reported:  
 04/13/2021 13:02

**MW-9**
**2103321-01 (Water)**

Analyte	Result	MRL	Units	Dil	Batch	Analyst	Date Time Prepared	Date Time Analyzed	Method	Qualifiers
---------	--------	-----	-------	-----	-------	---------	--------------------------	--------------------------	--------	------------

**Classical Chemistry Parameters**

Chloride	466	10.0	mg/L	20.0	1C18040	DLW	03/17/2021 14:12	03/17/2021 14:12	SM 4110B 2011	
Sulfate as SO <sub>4</sub>	164	25.0	"	5.0	"	DLW	"	03/18/2021 01:21	"	
Fluoride	0.51	0.22	"	1.0	1C18044	CDV	03/18/2021 09:50	03/18/2021 14:44	SM 4500-F C 2011	
Total Dissolved Solids	1202	1	"	"	1C17048	DLW	03/17/2021 12:45	03/19/2021 00:00	SM 2540 C-2011	

**Metals by EPA 200 Series Methods ICP-AES**

Barium 455.403 [Radial]	0.094	0.010	mg/L	1.0	1C19035	CLV	03/19/2021 08:50	03/22/2021 12:30	EPA 200.7 Rev 4.4	
Boron 249.773 [Radial]	ND	0.050	"	"	"	CLV	"	"	"	
Calcium 315.887 [Radial]	61.2	0.100	"	2.0	"	CLV	"	03/22/2021 13:56	"	
Lithium 610.362 [Axial]	0.051	0.040	"	1.0	"	CLV	"	03/22/2021 12:30	"	

**Metals by EPA 200 Series Methods ICP-MS [Analysis Mode]**

Antimony [He]	ND	0.00200	mg/L	1.0	1C19034	ABT	"	03/23/2021 17:09	EPA 200.8 Rev 5.4	
Arsenic [NG]	ND	0.00200	"	"	"	ABT	"	"	"	
Beryllium [He]	0.00594	0.00100	"	"	"	ABT	"	"	"	
Cadmium [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Chromium [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Cobalt [He]	0.0237	0.00100	"	"	"	ABT	"	"	"	
Lead [He]	0.00191	0.00100	"	"	"	ABT	"	"	"	
Molybdenum [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Selenium [NG]	ND	0.00500	"	"	"	ABT	"	"	"	



Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR  
 Project Number: [none]  
 Project Manager: Jim Ward

 Reported:  
 04/13/2021 13:02

**OW-2**
**2103321-02 (Water)**

Analyte	Result	MRL	Units	Dil	Batch	Analyst	Date Time Prepared	Date Time Analyzed	Method	Qualifiers
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**Classical Chemistry Parameters**

Chloride	43.5	2.00	mg/L	4.0	1C18040	DLW	03/17/2021 14:12	03/17/2021 14:43	SM 4110B 2011	
Sulfate as SO <sub>4</sub>	118	20.0	"	"	"	DLW	"	"	"	
Fluoride	0.26	0.22	"	1.0	1C18044	CDV	03/18/2021 09:50	03/18/2021 14:44	SM 4500-F C 2011	
Total Dissolved Solids	347	1	"	"	1C17048	DLW	03/17/2021 12:45	03/19/2021 00:00	SM 2540 C-2011	

**Metals by EPA 200 Series Methods ICP-AES**

Barium 455.403 [Radial]	0.047	0.010	mg/L	1.0	1C19035	CLV	03/19/2021 08:50	03/22/2021 12:34	EPA 200.7 Rev 4.4	
Boron 249.773 [Radial]	ND	0.050	"	"	"	CLV	"	"	"	
Calcium 315.887 [Radial]	30.8	0.050	"	"	"	CLV	"	"	"	
Lithium 610.362 [Axial]	ND	0.040	"	"	"	CLV	"	"	"	

**Metals by EPA 200 Series Methods ICP-MS [Analysis Mode]**

Antimony [He]	ND	0.00200	mg/L	1.0	1C19034	ABT	"	03/22/2021 23:18	EPA 200.8 Rev 5.4	
Arsenic [NG]	ND	0.00200	"	"	"	ABT	"	"	"	
Beryllium [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Cadmium [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Chromium [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Cobalt [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Lead [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Molybdenum [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Selenium [NG]	ND	0.00500	"	"	"	ABT	"	"	"	

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR  
 Project Number: [none]  
 Project Manager: Jim Ward

 Reported:  
 04/13/2021 13:02

**MW-13**
**2103321-03 (Water)**

Analyte	Result	MRL	Units	Dil	Batch	Analyst	Date Time Prepared	Date Time Analyzed	Method	Qualifiers
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**Classical Chemistry Parameters**

<b>Chloride</b>	<b>3.73</b>	0.500	mg/L	1.0	1C18040	DLW	03/17/2021 14:12	03/17/2021 15:15	SM 4110B 2011	
<b>Sulfate as SO<sub>4</sub></b>	<b>5.14</b>	5.00	"	"	"	DLW	"	"	"	
Fluoride	ND	0.22	"	"	1C18044	CDV	03/18/2021 09:50	03/18/2021 14:44	SM 4500-F C 2011	
<b>Total Dissolved Solids</b>	<b>168</b>	1	"	"	1C17048	DLW	03/17/2021 12:45	03/19/2021 00:00	SM 2540 C-2011	

**Metals by EPA 200 Series Methods ICP-AES**

<b>Barium 455.403 [Radial]</b>	<b>0.161</b>	0.010	mg/L	1.0	1C19035	CLV	03/19/2021 08:50	03/22/2021 12:37	EPA 200.7 Rev 4.4	
Boron 249.773 [Radial]	ND	0.050	"	"	"	CLV	"	"	"	
<b>Calcium 315.887 [Radial]</b>	<b>18.1</b>	0.050	"	"	"	CLV	"	"	"	
Lithium 610.362 [Axial]	ND	0.040	"	"	"	CLV	"	"	"	

**Metals by EPA 200 Series Methods ICP-MS [Analysis Mode]**

Antimony [He]	ND	0.00200	mg/L	1.0	1C19034	ABT	"	03/22/2021 23:24	EPA 200.8 Rev 5.4	
Arsenic [NG]	ND	0.00200	"	"	"	ABT	"	"	"	
Beryllium [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Cadmium [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Chromium [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Cobalt [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Lead [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Molybdenum [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Selenium [NG]	ND	0.00500	"	"	"	ABT	"	"	"	

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR  
 Project Number: [none]  
 Project Manager: Jim Ward

 Reported:  
 04/13/2021 13:02

**MW-7**
**2103321-04 (Water)**

Analyte	Result	MRL	Units	Dil	Batch	Analyst	Date Time Prepared	Date Time Analyzed	Method	Qualifiers
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**Classical Chemistry Parameters**

Chloride	3.04	0.500	mg/L	1.0	1C18040	DLW	03/17/2021 14:12	03/17/2021 17:23	SM 4110B 2011	
Sulfate as SO <sub>4</sub>	36.6	10.0	"	2.0	"	DLW	"	03/17/2021 17:55	"	
Fluoride	0.23	0.22	"	1.0	1C18044	CDV	03/18/2021 09:50	03/18/2021 14:44	SM 4500-F C 2011	
Total Dissolved Solids	186	1	"	"	1C17048	DLW	03/17/2021 12:45	03/19/2021 00:00	SM 2540 C-2011	

**Metals by EPA 200 Series Methods ICP-AES**

Barium 455.403 [Radial]	0.076	0.010	mg/L	1.0	1C19035	CLV	03/19/2021 08:50	03/22/2021 12:41	EPA 200.7 Rev 4.4	
Boron 249.773 [Radial]	ND	0.050	"	"	"	CLV	"	"	"	
Calcium 315.887 [Radial]	31.7	0.050	"	"	"	CLV	"	"	"	
Lithium 610.362 [Axial]	ND	0.040	"	"	"	CLV	"	"	"	

**Metals by EPA 200 Series Methods ICP-MS [Analysis Mode]**

Antimony [He]	ND	0.00200	mg/L	1.0	1C19034	ABT	"	03/22/2021 23:38	EPA 200.8 Rev 5.4	
Arsenic [NG]	ND	0.00200	"	"	"	ABT	"	"	"	
Beryllium [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Cadmium [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Chromium [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Cobalt [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Lead [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Molybdenum [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Selenium [NG]	ND	0.00500	"	"	"	ABT	"	"	"	

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR  
 Project Number: [none]  
 Project Manager: Jim Ward

 Reported:  
 04/13/2021 13:02

**MW-14**
**2103321-05 (Water)**

Analyte	Result	MRL	Units	Dil	Batch	Analyst	Date Time Prepared	Date Time Analyzed	Method	Qualifiers
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**Classical Chemistry Parameters**

Chloride	18.6	0.500	mg/L	1.0	1C18040	DLW	03/17/2021 14:12	03/17/2021 18:26	SM 4110B 2011	
Sulfate as SO <sub>4</sub>	10.2	5.00	"	"	"	DLW	"	"	"	
Fluoride	ND	0.22	"	"	1C18044	CDV	03/26/2021 10:22	03/26/2021 10:22	SM 4500-F C 2011	
Total Dissolved Solids	82	1	"	"	1C17048	DLW	03/17/2021 12:45	03/19/2021 00:00	SM 2540 C-2011	

**Metals by EPA 200 Series Methods ICP-AES**

Barium 455.403 [Radial]	0.012	0.010	mg/L	1.0	1C19035	CLV	03/19/2021 08:50	03/22/2021 12:08	EPA 200.7 Rev 4.4	
Boron 249.773 [Radial]	ND	0.050	"	"	"	CLV	"	"	"	
Calcium 315.887 [Radial]	0.571	0.050	"	"	"	CLV	"	"	"	
Lithium 610.362 [Axial]	ND	0.040	"	"	"	CLV	"	"	"	

**Metals by EPA 200 Series Methods ICP-MS [Analysis Mode]**

Antimony [He]	ND	0.00200	mg/L	1.0	1C19034	ABT	"	03/23/2021 16:24	EPA 200.8 Rev 5.4	
Arsenic [NG]	ND	0.00200	"	"	"	ABT	"	"	"	
Beryllium [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Cadmium [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Chromium [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Cobalt [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Lead [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Molybdenum [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Selenium [NG]	ND	0.00500	"	"	"	ABT	"	"	"	

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR  
 Project Number: [none]  
 Project Manager: Jim Ward

 Reported:  
 04/13/2021 13:02

**Field Blank**
**2103321-06 (Water)**

Analyte	Result	MRL	Units	Dil	Batch	Analyst	Date Time Prepared	Date Time Analyzed	Method	Qualifiers
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**Classical Chemistry Parameters**

<b>Chloride</b>	<b>2.01</b>	0.500	mg/L	1.0	1C18040	DLW	03/17/2021 14:12	03/17/2021 18:58	SM 4110B 2011	
Sulfate as SO <sub>4</sub>	ND	5.00	"	"	"	DLW	"	"	"	
Fluoride	ND	0.22	"	"	1C18044	CDV	03/18/2021 09:50	03/18/2021 14:44	SM 4500-F C 2011	
<b>Total Dissolved Solids</b>	<b>31</b>	1	"	"	1C17048	DLW	03/17/2021 12:45	03/19/2021 00:00	SM 2540 C-2011	

**Metals by EPA 200 Series Methods ICP-AES**

Barium 455.403 [Radial]	ND	0.010	mg/L	1.0	1C19035	CLV	03/19/2021 08:50	03/22/2021 12:45	EPA 200.7 Rev 4.4	
Boron 249.773 [Radial]	ND	0.050	"	"	"	CLV	"	"	"	
<b>Calcium 315.887 [Radial]</b>	<b>2.31</b>	0.050	"	"	"	CLV	"	"	"	
Lithium 610.362 [Axial]	ND	0.040	"	"	"	CLV	"	"	"	

**Metals by EPA 200 Series Methods ICP-MS [Analysis Mode]**

Antimony [He]	ND	0.00200	mg/L	1.0	1C19034	ABT	"	03/22/2021 23:44	EPA 200.8 Rev 5.4	
Arsenic [NG]	ND	0.00200	"	"	"	ABT	"	"	"	
Beryllium [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Cadmium [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Chromium [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Cobalt [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Lead [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Molybdenum [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Selenium [NG]	ND	0.00500	"	"	"	ABT	"	"	"	

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR  
 Project Number: [none]  
 Project Manager: Jim Ward

 Reported:  
 04/13/2021 13:02

**Duplicate**
**2103321-07 (Water)**

Analyte	Result	MRL	Units	Dil	Batch	Analyst	Date Time Prepared	Date Time Analyzed	Method	Qualifiers
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**Classical Chemistry Parameters**

Chloride	19.5	0.500	mg/L	1.0	1C18040	DLW	03/17/2021 14:12	03/17/2021 20:34	SM 4110B 2011	
Sulfate as SO <sub>4</sub>	7.90	5.00	"	"	"	DLW	"	"	"	
Fluoride	ND	0.22	"	"	1C18044	CDV	03/26/2021 10:22	03/26/2021 10:22	SM 4500-F C 2011	
Total Dissolved Solids	86	1	"	"	1C17048	DLW	03/17/2021 12:45	03/19/2021 00:00	SM 2540 C-2011	

**Metals by EPA 200 Series Methods ICP-AES**

Barium 455.403 [Radial]	0.013	0.010	mg/L	1.0	1C19035	CLV	03/19/2021 08:50	03/22/2021 12:48	EPA 200.7 Rev 4.4	
Boron 249.773 [Radial]	ND	0.050	"	"	"	CLV	"	"	"	
Calcium 315.887 [Radial]	0.608	0.050	"	"	"	CLV	"	"	"	
Lithium 610.362 [Axial]	ND	0.040	"	"	"	CLV	"	"	"	

**Metals by EPA 200 Series Methods ICP-MS [Analysis Mode]**

Antimony [He]	ND	0.00200	mg/L	1.0	1C19034	ABT	"	03/23/2021 00:17	EPA 200.8 Rev 5.4	
Arsenic [NG]	ND	0.00200	"	"	"	ABT	"	"	"	
Beryllium [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Cadmium [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Chromium [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Cobalt [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Lead [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Molybdenum [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Selenium [NG]	ND	0.00500	"	"	"	ABT	"	"	"	CC-01

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR  
 Project Number: [none]  
 Project Manager: Jim Ward

 Reported:  
 04/13/2021 13:02

**MW-12**
**2103321-08 (Water)**

Analyte	Result	MRL	Units	Dil	Batch	Analyst	Date Time Prepared	Date Time Analyzed	Method	Qualifiers
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**Classical Chemistry Parameters**

Chloride	56.4	2.00	mg/L	4.0	1C18040	DLW	03/17/2021 14:12	03/18/2021 11:36	SM 4110B 2011	
Sulfate as SO <sub>4</sub>	79.6	20.0	"	"	"	DLW	"	"	"	
Fluoride	ND	0.22	"	1.0	1C18044	CDV	03/18/2021 09:50	03/18/2021 14:44	SM 4500-F C 2011	
Total Dissolved Solids	285	1	"	"	1C17048	DLW	03/17/2021 12:45	03/19/2021 00:00	SM 2540 C-2011	

**Metals by EPA 200 Series Methods ICP-AES**

Barium 455.403 [Radial]	0.233	0.010	mg/L	1.0	1C19035	CLV	03/19/2021 08:50	03/22/2021 12:59	EPA 200.7 Rev 4.4	
Boron 249.773 [Radial]	ND	0.050	"	"	"	CLV	"	"	"	
Calcium 315.887 [Radial]	29.4	0.050	"	"	"	CLV	"	"	"	
Lithium 610.362 [Axial]	ND	0.040	"	"	"	CLV	"	"	"	

**Metals by EPA 200 Series Methods ICP-MS [Analysis Mode]**

Antimony [He]	ND	0.00200	mg/L	1.0	1C19034	ABT	"	03/23/2021 00:23	EPA 200.8 Rev 5.4	
Arsenic [NG]	ND	0.00200	"	"	"	ABT	"	"	"	
Beryllium [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Cadmium [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Chromium [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Cobalt [He]	0.00929	0.00100	"	"	"	ABT	"	"	"	
Lead [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Molybdenum [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Selenium [NG]	ND	0.00500	"	"	"	ABT	"	"	"	CC-01

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR  
 Project Number: [none]  
 Project Manager: Jim Ward

 Reported:  
 04/13/2021 13:02

**CCR-2**
**2103321-09 (Water)**

Analyte	Result	MRL	Units	Dil	Batch	Analyst	Date Time Prepared	Date Time Analyzed	Method	Qualifiers
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**Classical Chemistry Parameters**

Chloride	8.29	0.500	mg/L	1.0	1C18040	DLW	03/17/2021 14:12	03/17/2021 22:10	SM 4110B 2011	
Sulfate as SO <sub>4</sub>	15.5	5.00	"	"	"	DLW	"	"	"	
Fluoride	ND	0.22	"	"	1C18044	CDV	03/18/2021 09:50	03/18/2021 14:44	SM 4500-F C 2011	
Total Dissolved Solids	143	1	"	"	1C17048	DLW	03/17/2021 12:45	03/19/2021 00:00	SM 2540 C-2011	

**Metals by EPA 200 Series Methods ICP-AES**

Barium 455.403 [Radial]	0.110	0.010	mg/L	1.0	1C19035	CLV	03/19/2021 08:50	03/22/2021 12:19	EPA 200.7 Rev 4.4	
Boron 249.773 [Radial]	ND	0.050	"	"	"	CLV	"	"	"	
Calcium 315.887 [Radial]	13.8	0.050	"	"	"	CLV	"	"	"	
Lithium 610.362 [Axial]	ND	0.040	"	"	"	CLV	"	"	"	

**Metals by EPA 200 Series Methods ICP-MS [Analysis Mode]**

Antimony [He]	ND	0.00200	mg/L	1.0	1C19034	ABT	"	03/23/2021 16:50	EPA 200.8 Rev 5.4	
Arsenic [NG]	ND	0.00200	"	"	"	ABT	"	"	"	
Beryllium [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Cadmium [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Chromium [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Cobalt [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Lead [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Molybdenum [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Selenium [NG]	ND	0.00500	"	"	"	ABT	"	"	"	



Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR  
 Project Number: [none]  
 Project Manager: Jim Ward

 Reported:  
 04/13/2021 13:02

**CCR-3**
**2103321-10 (Water)**

Analyte	Result	MRL	Units	Dil	Batch	Analyst	Date Time Prepared	Date Time Analyzed	Method	Qualifiers
<b>Classical Chemistry Parameters</b>										
Chloride	4.53	0.500	mg/L	1.0	1C18040	DLW	03/17/2021 14:12	03/17/2021 22:42	SM 4110B 2011	
Sulfate as SO <sub>4</sub>	261	50.0	"	10.0	"	DLW	"	03/18/2021 12:48	"	
Fluoride	ND	0.22	"	1.0	1C18044	CDV	03/18/2021 09:50	03/18/2021 14:44	SM 4500-F C 2011	
Total Dissolved Solids	465	1	"	"	1C17048	DLW	03/17/2021 12:45	03/19/2021 00:00	SM 2540 C-2011	
<b>Metals by EPA 200 Series Methods ICP-AES</b>										
Barium 455.403 [Radial]	0.084	0.010	mg/L	1.0	1C19035	CLV	03/19/2021 08:50	03/22/2021 13:03	EPA 200.7 Rev 4.4	
Boron 249.773 [Radial]	ND	0.050	"	"	"	CLV	"	"	"	
Calcium 315.887 [Radial]	39.9	0.050	"	"	"	CLV	"	"	"	
Lithium 610.362 [Axial]	0.072	0.040	"	"	"	CLV	"	"	"	
<b>Metals by EPA 200 Series Methods ICP-MS [Analysis Mode]</b>										
Antimony [He]	ND	0.00200	mg/L	1.0	1C19034	ABT	"	03/23/2021 00:37	EPA 200.8 Rev 5.4	
Arsenic [NG]	ND	0.00200	"	"	"	ABT	"	"	"	
Beryllium [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Cadmium [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Chromium [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Cobalt [He]	0.0138	0.00100	"	"	"	ABT	"	"	"	
Lead [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Molybdenum [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Selenium [NG]	ND	0.00500	"	"	"	ABT	"	"	"	CC-01

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR  
 Project Number: [none]  
 Project Manager: Jim Ward

 Reported:  
 04/13/2021 13:02

**CCR-4**
**2103321-11 (Water)**

Analyte	Result	MRL	Units	Dil	Batch	Analyst	Date Time Prepared	Date Time Analyzed	Method	Qualifiers
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**Classical Chemistry Parameters**

Chloride	7.73	0.500	mg/L	1.0	1C18040	DLW	03/17/2021 14:12	03/17/2021 23:45	SM 4110B 2011	
Sulfate as SO <sub>4</sub>	31.5	10.0	"	2.0	"	DLW	"	03/18/2021 13:20	"	
Fluoride	ND	0.22	"	1.0	1C18044	CDV	03/18/2021 09:50	03/18/2021 14:44	SM 4500-F C 2011	
Total Dissolved Solids	208	1	"	"	1C17048	DLW	03/17/2021 12:45	03/19/2021 00:00	SM 2540 C-2011	

**Metals by EPA 200 Series Methods ICP-AES**

Barium 455.403 [Radial]	0.170	0.010	mg/L	1.0	1C19035	CLV	03/19/2021 08:50	03/22/2021 13:07	EPA 200.7 Rev 4.4	
Boron 249.773 [Radial]	ND	0.050	"	"	"	CLV	"	"	"	
Calcium 315.887 [Radial]	25.3	0.050	"	"	"	CLV	"	"	"	
Lithium 610.362 [Axial]	ND	0.040	"	"	"	CLV	"	"	"	

**Metals by EPA 200 Series Methods ICP-MS [Analysis Mode]**

Antimony [He]	ND	0.00200	mg/L	1.0	1C19034	ABT	"	03/23/2021 00:43	EPA 200.8 Rev 5.4	
Arsenic [NG]	ND	0.00200	"	"	"	ABT	"	"	"	
Beryllium [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Cadmium [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Chromium [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Cobalt [He]	0.00430	0.00100	"	"	"	ABT	"	"	"	
Lead [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Molybdenum [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Selenium [NG]	ND	0.00500	"	"	"	ABT	"	"	"	CC-01

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR  
 Project Number: [none]  
 Project Manager: Jim Ward

 Reported:  
 04/13/2021 13:02

**CCR-5**
**2103321-12 (Water)**

Analyte	Result	MRL	Units	Dil	Batch	Analyst	Date Time Prepared	Date Time Analyzed	Method	Qualifiers
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**Classical Chemistry Parameters**

Chloride	6.87	0.500	mg/L	1.0	1C18040	DLW	03/17/2021 14:12	03/18/2021 00:17	SM 4110B 2011	
Sulfate as SO <sub>4</sub>	1290	250	"	50.0	"	DLW	"	03/18/2021 00:49	"	
Fluoride	ND	0.22	"	1.0	1C18044	CDV	03/18/2021 09:50	03/18/2021 14:44	SM 4500-F C 2011	
Total Dissolved Solids	1362	2	"	"	1C17048	DLW	03/17/2021 12:45	03/19/2021 00:00	SM 2540 C-2011	

**Metals by EPA 200 Series Methods ICP-AES**

Barium 455.403 [Radial]	0.038	0.010	mg/L	1.0	1C19035	CLV	03/19/2021 08:50	03/22/2021 13:10	EPA 200.7 Rev 4.4	
Boron 249.773 [Radial]	0.089	0.050	"	"	"	CLV	"	"	"	
Calcium 315.887 [Radial]	161	0.250	"	5.0	"	CLV	"	03/22/2021 14:00	"	
Lithium 610.362 [Axial]	0.097	0.040	"	1.0	"	CLV	"	03/22/2021 13:10	"	

**Metals by EPA 200 Series Methods ICP-MS [Analysis Mode]**

Antimony [He]	ND	0.00200	mg/L	1.0	1C19034	ABT	"	03/23/2021 00:50	EPA 200.8 Rev 5.4	
Arsenic [NG]	0.00316	0.00200	"	"	"	ABT	"	"	"	
Beryllium [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Cadmium [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Chromium [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Cobalt [He]	0.0299	0.00100	"	"	"	ABT	"	"	"	
Lead [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Molybdenum [He]	ND	0.00100	"	"	"	ABT	"	"	"	
Selenium [NG]	ND	0.00500	"	"	"	ABT	"	"	"	CC-01



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Choctaw Generation LP  
2391 Pensacola Rd.  
Ackerman MS, 39735

Project: CGLP CCR  
Project Number: [none]  
Project Manager: Jim Ward

Reported:  
04/13/2021 13:02

### Classical Chemistry Parameters - Quality Control

Analyte	Analyzed	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifiers
Batch 1C17048 - Default Prep GenChem											
Blank (1C17048-BLK1)											
Total Dissolved Solids	3/19/21 0:00	ND	1	mg/L							
LCS (1C17048-BS1)											
Total Dissolved Solids	3/19/21 0:00	125	1	mg/L	150		83.3	65-105			
LCS Dup (1C17048-BSD1)											
Total Dissolved Solids	3/19/21 0:00	122	1	mg/L	150		81.3	65-105	2.43	15	
Duplicate (1C17048-DUP1) Source: 2103316-01											
Total Dissolved Solids	3/19/21 0:00	309	1	mg/L		313			1.29	10	
Duplicate (1C17048-DUP2) Source: 2103321-09											
Total Dissolved Solids	3/19/21 0:00	140	1	mg/L		143			2.12	10	
Batch 1C18040 - Default Prep GenChem											
Blank (1C18040-BLK1)											
Chloride	3/18/21 1:53	ND	0.500	mg/L							
Sulfate as SO4	3/18/21 1:53	ND	5.00	"							
Blank (1C18040-BLK2)											
Chloride	3/18/21 8:42	ND	0.500	mg/L							
Sulfate as SO4	3/18/21 8:42	ND	5.00	"							
LCS (1C18040-BS1)											
Chloride	3/18/21 2:57	9.81	0.500	mg/L	10.0		98.1	86.3-109			
Sulfate as SO4	3/18/21 2:57	9.62	5.00	"	10.0		96.2	88-108			

Choctaw Generation LP  
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### Classical Chemistry Parameters - Quality Control

Analyte	Analyzed	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifiers
Batch 1C18040 - Default Prep GenChem											
LCS (1C18040-BS2)											
Chloride	3/18/21 9:46	2.89	0.500	mg/L	3.00		96.5	86.3-109			
Sulfate as SO4	3/18/21 9:46	14.3	5.00	"	15.0		95.4	88-108			
LCS Dup (1C18040-BSD1)											
Chloride	3/18/21 3:29	9.77	0.500	mg/L	10.0		97.7	86.3-109	0.388	20	
Sulfate as SO4	3/18/21 3:29	9.64	5.00	"	10.0		96.4	88-108	0.239	20	
LCS Dup (1C18040-BSD2)											
Chloride	3/18/21 10:18	2.92	0.500	mg/L	3.00		97.2	86.3-109	0.792	20	
Sulfate as SO4	3/18/21 10:18	14.4	5.00	"	15.0		96.1	88-108	0.738	20	
Duplicate (1C18040-DUP1) Source: 2103321-03											
Chloride	3/17/21 15:47	3.72	0.500	mg/L		3.73			0.242	20	
Sulfate as SO4	3/17/21 15:47	5.08	5.00	"		5.14			1.31	20	
Matrix Spike (1C18040-MS1) Source: 2103321-03											
Chloride	3/17/21 16:19	24.2	0.500	mg/L	20.0	3.73	102	76.2-122			
Sulfate as SO4	3/17/21 16:19	25.6	5.00	"	20.0	5.14	103	74.1-129			
Matrix Spike Dup (1C18040-MSD1) Source: 2103321-03											
Chloride	3/17/21 16:51	24.2	0.500	mg/L	20.0	3.73	102	76.2-122	0.0207	20	
Sulfate as SO4	3/17/21 16:51	25.7	5.00	"	20.0	5.14	103	74.1-129	0.0195	20	
Batch 1C18044 - Default Prep GenChem											
Blank (1C18044-BLK1)											
Fluoride	3/18/21 14:44	ND	0.22	mg/L							

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### Classical Chemistry Parameters - Quality Control

Analyte	Analyzed	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifiers
Batch 1C18044 - Default Prep GenChem											
Blank (1C18044-BLK2)											
Fluoride	3/26/21 10:22	ND	0.22	mg/L							
LCS (1C18044-BS1)											
Fluoride	3/18/21 14:44	2.03	0.22	mg/L	2.00		102	83.3-107			
LCS (1C18044-BS2)											
Fluoride	3/26/21 10:22	2.04	0.22	mg/L	2.00		102	83.3-107			
LCS Dup (1C18044-BSD1)											
Fluoride	3/18/21 14:44	2.02	0.22	mg/L	2.00		101	83.3-107	0.494	30	
LCS Dup (1C18044-BSD2)											
Fluoride	3/26/21 10:22	2.05	0.22	mg/L	2.00		103	83.3-107	0.489	30	
Duplicate (1C18044-DUP1) Source: 2103321-04											
Fluoride	3/18/21 14:44	0.23	0.22	mg/L		0.23			2.63	20	
Duplicate (1C18044-DUP2) Source: 2103321-07											
Fluoride	3/26/21 10:22	ND	0.22	mg/L		ND				20	
Matrix Spike (1C18044-MS1) Source: 2103321-04											
Fluoride	3/18/21 14:44	1.22	0.22	mg/L	1.00	0.23	99.5	79.3-113			
Matrix Spike (1C18044-MS2) Source: 2103321-05											
Fluoride	3/26/21 10:22	1.00	0.22	mg/L	1.00	ND	99.6	79.3-113			
Matrix Spike Dup (1C18044-MSD1) Source: 2103321-04											
Fluoride	3/18/21 14:44	1.25	0.22	mg/L	1.00	0.23	103	79.3-113	2.43	30	



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Choctaw Generation LP  
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Project: CGLP CCR  
Project Number: [none]  
Project Manager: Jim Ward

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### Classical Chemistry Parameters - Quality Control

Analyte	Analyzed	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifiers
Batch 1C18044 - Default Prep GenChem											
Matrix Spike Dup (1C18044-MSD2) Source: 2103321-05											
Fluoride	3/26/21 10:22	1.02	0.22	mg/L	1.00	ND	102	79.3-113	2.38	30	

Choctaw Generation LP  
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**Metals by EPA 200 Series Methods ICP-AES - Quality Control**

Analyte	Analyzed	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifiers
Batch 1C19035 - EPA 200.2 DCN 1017 Rev 9											
<b>Blank (1C19035-BLK1)</b>											
Barium 455.403 [Radial]	3/22/21 11:18	ND	0.010	mg/L							
Boron 249.773 [Radial]	3/22/21 11:18	ND	0.050	"							
Calcium 315.887 [Radial]	3/22/21 11:18	ND	0.050	"							
Lithium 610.362 [Axial]	3/22/21 11:18	ND	0.040	"							
<b>LCS (1C19035-BS1)</b>											
Barium 455.403 [Radial]	3/22/21 11:32	0.217	0.010	mg/L	0.200		108	85-115			
Boron 249.773 [Radial]	3/22/21 11:32	0.210	0.050	"	0.200		105	85-115			
Calcium 315.887 [Radial]	3/22/21 11:32	0.200	0.050	"	0.200		100	85-115			
Lithium 610.362 [Axial]	3/22/21 15:35	0.176	0.040	"	0.200		87.9	85-115			
<b>LCS Dup (1C19035-BSD1)</b>											
Barium 455.403 [Radial]	3/22/21 11:35	0.214	0.010	mg/L	0.200		107	85-115	1.08	20	
Boron 249.773 [Radial]	3/22/21 11:35	0.210	0.050	"	0.200		105	85-115	0.102	20	
Calcium 315.887 [Radial]	3/22/21 11:35	0.205	0.050	"	0.200		102	85-115	1.99	20	
Lithium 610.362 [Axial]	3/22/21 15:39	0.169	0.040	"	0.200		84.4	85-115	4.01	20	L2
<b>Duplicate (1C19035-DUP1) Source: 2103321-09</b>											
Calcium 315.887 [Radial]	3/22/21 12:26	13.9	0.050	mg/L		13.8			0.769	20	
<b>Matrix Spike (1C19035-MS1) Source: 2103321-05</b>											
Barium 455.403 [Radial]	3/22/21 12:12	0.218	0.010	mg/L	0.200	0.012	103	70-130			
Boron 249.773 [Radial]	3/22/21 12:12	0.206	0.050	"	0.200	ND	103	70-130			
Calcium 315.887 [Radial]	3/22/21 12:12	0.768	0.050	"	0.200	0.571	98.2	70-130			
Lithium 610.362 [Axial]	3/22/21 12:12	0.196	0.040	"	0.200	ND	97.9	70-130			
<b>Matrix Spike (1C19035-MS2) Source: 2103321-09</b>											
Barium 455.403 [Radial]	3/22/21 12:23	0.348	0.010	mg/L	0.200	0.110	119	70-130			
Boron 249.773 [Radial]	3/22/21 12:23	0.250	0.050	"	0.200	0.019	116	70-130			
Lithium 610.362 [Axial]	3/22/21 12:23	0.189	0.040	"	0.200	ND	94.4	70-130			





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Project: CGLP CCR  
Project Number: [none]  
Project Manager: Jim Ward

Reported:  
04/13/2021 13:02

**Metals by EPA 200 Series Methods ICP-AES - Quality Control**

Analyte	Analyzed	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifiers
Batch 1C19035 - EPA 200.2 DCN 1017 Rev 9											
Matrix Spike Dup (1C19035-MSD1)				Source: 2103321-05							
Barium 455.403 [Radial]	3/22/21 12:15	0.223	0.010	mg/L	0.200	0.012	105	70-130	2.38	20	
Boron 249.773 [Radial]	3/22/21 12:15	0.207	0.050	"	0.200	ND	103	70-130	0.393	20	
Calcium 315.887 [Radial]	3/22/21 12:15	0.788	0.050	"	0.200	0.571	108	70-130	2.58	20	
Lithium 610.362 [Axial]	3/22/21 12:15	0.194	0.040	"	0.200	ND	97.0	70-130	0.925	20	
Matrix Spike Dup (1C19035-MSD2)				Source: 2103321-09							
Barium 455.403 [Radial]	3/22/21 12:26	0.324	0.010	mg/L	0.200	0.110	107	70-130	7.28	20	
Boron 249.773 [Radial]	3/22/21 12:26	0.228	0.050	"	0.200	0.019	105	70-130	9.03	20	
Lithium 610.362 [Axial]	3/22/21 12:26	0.189	0.040	"	0.200	ND	94.7	70-130	0.354	20	

Choctaw Generation LP  
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 Project: CGLP CCR  
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**Metals by EPA 200 Series Methods ICP-MS [Analysis Mode] - Quality Control**

Analyte	Analyzed	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifiers
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Batch 1C19034 - EPA 200.2 DCN 1017 Rev 9

**Blank (1C19034-BLK1)**

Antimony [He]	3/22/21 17:29	ND	0.00200	mg/L							
Arsenic [NG]	3/22/21 17:29	ND	0.00200	"							
Beryllium [He]	3/22/21 17:29	ND	0.00100	"							
Cadmium [He]	3/22/21 17:29	ND	0.00100	"							
Chromium [He]	3/22/21 17:29	ND	0.00100	"							
Cobalt [He]	3/22/21 17:29	ND	0.00100	"							
Lead [He]	3/22/21 17:29	ND	0.00100	"							
Molybdenum [He]	3/22/21 17:29	ND	0.00100	"							
Selenium [NG]	3/22/21 17:29	ND	0.00500	"							
Thallium [He]	3/22/21 17:29	ND	0.00500	"							

**LCS (1C19034-BS1)**

Antimony [He]	3/22/21 17:35	0.109	0.00200	mg/L	0.100		109	85-115			
Arsenic [NG]	3/22/21 17:35	0.098	0.00200	"	0.100		98.0	85-115			
Beryllium [He]	3/22/21 17:35	0.104	0.00100	"	0.100		104	85-115			
Cadmium [He]	3/22/21 17:35	0.098	0.00100	"	0.100		98.5	85-115			
Chromium [He]	3/22/21 17:35	0.106	0.00100	"	0.100		106	85-115			
Cobalt [He]	3/22/21 17:35	0.105	0.00100	"	0.100		105	85-115			
Lead [He]	3/22/21 17:35	0.098	0.00100	"	0.100		97.9	85-115			
Molybdenum [He]	3/22/21 17:35	0.102	0.00100	"	0.100		102	85-115			
Selenium [NG]	3/22/21 17:35	0.101	0.00500	"	0.100		101	85-115			
Thallium [He]	3/22/21 17:35	0.102	0.00500	"	0.100		102	85-115			

**LCS Dup (1C19034-BSD1)**

Antimony [He]	3/22/21 17:42	0.108	0.00200	mg/L	0.100		108	85-115	1.64	20	
Arsenic [NG]	3/22/21 17:42	0.099	0.00200	"	0.100		98.7	85-115	0.708	20	
Beryllium [He]	3/22/21 17:42	0.106	0.00100	"	0.100		106	85-115	1.86	20	
Cadmium [He]	3/22/21 17:42	0.098	0.00100	"	0.100		98.0	85-115	0.474	20	
Chromium [He]	3/22/21 17:42	0.104	0.00100	"	0.100		104	85-115	1.59	20	
Cobalt [He]	3/22/21 17:42	0.103	0.00100	"	0.100		103	85-115	2.01	20	
Lead [He]	3/22/21 17:42	0.096	0.00100	"	0.100		96.4	85-115	1.56	20	
Molybdenum [He]	3/22/21 17:42	0.102	0.00100	"	0.100		102	85-115	0.272	20	
Selenium [NG]	3/22/21 17:42	0.102	0.00500	"	0.100		102	85-115	1.06	20	
Thallium [He]	3/22/21 17:42	0.103	0.00500	"	0.100		103	85-115	0.575	20	

Choctaw Generation LP  
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 Project: CGLP CCR  
 Project Number: [none]  
 Project Manager: Jim Ward

 Reported:  
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**Metals by EPA 200 Series Methods ICP-MS [Analysis Mode] - Quality Control**

Analyte	Analyzed	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifiers
Batch 1C19034 - EPA 200.2 DCN 1017 Rev 9											
<b>Matrix Spike (1C19034-MS1)</b>						<b>Source: 2103321-05</b>					
Antimony [He]	3/23/21 16:30	0.110	0.00200	mg/L	0.100	ND	110	70-130			
Arsenic [NG]	3/23/21 16:30	0.102	0.00200	"	0.100	ND	102	70-130			
Beryllium [He]	3/23/21 16:30	0.116	0.00100	"	0.100	ND	116	70-130			
Cadmium [He]	3/23/21 16:30	0.101	0.00100	"	0.100	ND	101	70-130			
Chromium [He]	3/23/21 16:30	0.103	0.00100	"	0.100	ND	103	70-130			
Cobalt [He]	3/23/21 16:30	0.103	0.00100	"	0.100	0.0006	102	70-130			
Lead [He]	3/23/21 16:30	0.100	0.00100	"	0.100	ND	99.9	70-130			
Molybdenum [He]	3/23/21 16:30	0.106	0.00100	"	0.100	0.0002	106	70-130			
Selenium [NG]	3/23/21 16:30	0.100	0.00500	"	0.100	ND	100	70-130			
Thallium [He]	3/23/21 16:30	0.104	0.00500	"	0.100	ND	104	70-130			
<b>Matrix Spike (1C19034-MS2)</b>						<b>Source: 2103321-09</b>					
Antimony [He]	3/23/21 16:56	0.110	0.00200	mg/L	0.100	ND	110	70-130			
Arsenic [NG]	3/23/21 16:56	0.104	0.00200	"	0.100	ND	104	70-130			
Beryllium [He]	3/23/21 16:56	0.111	0.00100	"	0.100	ND	111	70-130			
Cadmium [He]	3/23/21 16:56	0.100	0.00100	"	0.100	ND	100	70-130			
Chromium [He]	3/23/21 16:56	0.103	0.00100	"	0.100	ND	103	70-130			
Cobalt [He]	3/23/21 16:56	0.101	0.00100	"	0.100	ND	101	70-130			
Lead [He]	3/23/21 16:56	0.099	0.00100	"	0.100	ND	99.2	70-130			
Molybdenum [He]	3/23/21 16:56	0.106	0.00100	"	0.100	0.0002	106	70-130			
Selenium [NG]	3/23/21 16:56	0.103	0.00500	"	0.100	ND	103	70-130			
Thallium [He]	3/23/21 16:56	0.105	0.00500	"	0.100	ND	105	70-130			
<b>Matrix Spike Dup (1C19034-MSD1)</b>						<b>Source: 2103321-05</b>					
Antimony [He]	3/23/21 16:37	0.111	0.00200	mg/L	0.100	ND	111	70-130	0.534	20	
Arsenic [NG]	3/23/21 16:37	0.101	0.00200	"	0.100	ND	101	70-130	1.96	20	
Beryllium [He]	3/23/21 16:37	0.113	0.00100	"	0.100	ND	113	70-130	2.59	20	
Cadmium [He]	3/23/21 16:37	0.102	0.00100	"	0.100	ND	102	70-130	0.747	20	
Chromium [He]	3/23/21 16:37	0.104	0.00100	"	0.100	ND	104	70-130	1.14	20	
Cobalt [He]	3/23/21 16:37	0.103	0.00100	"	0.100	0.0006	103	70-130	0.386	20	
Lead [He]	3/23/21 16:37	0.101	0.00100	"	0.100	ND	101	70-130	1.33	20	
Molybdenum [He]	3/23/21 16:37	0.107	0.00100	"	0.100	0.0002	106	70-130	0.762	20	
Selenium [NG]	3/23/21 16:37	0.099	0.00500	"	0.100	ND	98.7	70-130	1.24	20	
Thallium [He]	3/23/21 16:37	0.106	0.00500	"	0.100	ND	106	70-130	1.88	20	



6500 Sunplex Drive  
Ocean Springs, MS 39564  
228-875-6420 Phone  
228-875-6423 Fax

Choctaw Generation LP  
2391 Pensacola Rd.  
Ackerman MS, 39735

Project: CGLP CCR  
Project Number: [none]  
Project Manager: Jim Ward

Reported:  
04/13/2021 13:02

**Metals by EPA 200 Series Methods ICP-MS [Analysis Mode] - Quality Control**

Analyte	Analyzed	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifiers
---------	----------	--------	-----	-------	-------------	---------------	------	-------------	-----	-----------	------------

Batch 1C19034 - EPA 200.2 DCN 1017 Rev 9

Matrix Spike Dup (1C19034-MSD2)

Source: 2103321-09

Antimony [He]	3/23/21 17:03	0.111	0.00200	mg/L	0.100	ND	111	70-130	0.443	20	
Arsenic [NG]	3/23/21 17:03	0.107	0.00200	"	0.100	ND	107	70-130	3.13	20	
Beryllium [He]	3/23/21 17:03	0.113	0.00100	"	0.100	ND	113	70-130	1.60	20	
Cadmium [He]	3/23/21 17:03	0.101	0.00100	"	0.100	ND	101	70-130	0.843	20	
Chromium [He]	3/23/21 17:03	0.104	0.00100	"	0.100	ND	104	70-130	0.255	20	
Cobalt [He]	3/23/21 17:03	0.102	0.00100	"	0.100	ND	102	70-130	0.947	20	
Lead [He]	3/23/21 17:03	0.101	0.00100	"	0.100	ND	101	70-130	1.77	20	
Molybdenum [He]	3/23/21 17:03	0.108	0.00100	"	0.100	0.0002	107	70-130	1.09	20	
Selenium [NG]	3/23/21 17:03	0.106	0.00500	"	0.100	ND	106	70-130	3.06	20	
Thallium [He]	3/23/21 17:03	0.106	0.00500	"	0.100	ND	106	70-130	1.70	20	

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR  
 Project Number: [none]  
 Project Manager: Jim Ward

 Reported:  
 04/13/2021 13:02

**Certified Analyses Included in this Report**

Analyte	Certification Code
<b><i>EPA 200.7 Rev 4.4 in Water</i></b>	
Aluminum 237.312 [Radial]	C01,C02
Aluminum 394.401 [Radial]	C01,C02
Aluminum 396.152 [Radial]	C01,C02
Antimony 206.833 [Axial]	C01,C02
Arsenic 193.759 [Axial]	C01,C02
Barium 455.403 [Radial]	C01,C02
Barium 493.409 [Radial]	C01,C02
Beryllium 313.042 [Axial]	C01,C02
Boron 249.773 [Radial]	C01,C02
Cadmium 228.802 [Axial]	C01,C02
Calcium 315.887 [Radial]	C01,C02
Chromium 283.563 [Axial]	C01,C02
Cobalt 228.616 [Axial]	C01,C02
Copper 324.754 [Axial]	C01,C02
Iron 259.940 [Axial]	C01,C02
Iron 259.940 [Radial]	C01,C02
Lead 220.353 [Axial]	C01,C02
Lithium 610.362 [Axial]	C01,C02
Magnesium 285.213 [Radial]	C01,C02
Manganese 257.610 [Axial]	C01,C02
Molybdenum 202.030 [Axial]	C01,C02
Nickel 231.604 [Axial]	C01,C02
Potassium 766.490 [Radial]	C01,C02
Phosphorus 178.284 [Axial]	C01,C02
Phosphorus 178.284 [Radial]	C01,C02
Selenium 196.090 [Axial]	C01,C02
Silver 328.068 [Axial]	C01,C02
Sodium 589.592 [Axial]	C01,C02
Sodium 589.592 [Radial]	C01,C02
Strontium 346.446 [Radial]	C01,C02
Strontium 421.552 [Radial]	C01,C02
Thallium 190.856 [Axial]	C01,C02
Tin 189.989 [Axial]	C01,C02
Titanium 334.941 [Axial]	C01,C02
Vanadium 309.311 [Axial]	C01,C02
Zinc 213.856 [Axial]	C01,C02
<b><i>EPA 200.8 Rev 5.4 in Water</i></b>	
Aluminum [He]	C01,C02
Antimony [He]	C01,C02
Antimony [HHe]	C01,C02
Antimony [NG]	C01,C02

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR  
 Project Number: [none]  
 Project Manager: Jim Ward

 Reported:  
 04/13/2021 13:02

Arsenic [He]	C01
Arsenic [HHe]	C01,C02
Arsenic [NG]	C01,C02
Barium [He]	C01,C02
Beryllium [He]	C01,C02
Boron [NG]	C01,C02
Cadmium [He]	C01
Cadmium [HHe]	C01,C02
Cadmium [NG]	C01,C02
Chromium [He]	C01,C02
Cobalt [He]	C01,C02
Copper [He]	C01,C02
Copper [NG]	C01,C02
Iron [He]	C01,C02
Lead [He]	C01,C02
Lead [NG]	C01,C02
Manganese [He]	C01,C02
Molybdenum [He]	C01,C02
Nickel [He]	C01,C02
Selenium [He]	C01
Selenium [HHe]	C01,C02
Selenium [NG]	C01,C02
Silver [He]	C01,C02
Silver [NG]	C01,C02
Strontium [He]	C01,C02
Thallium [He]	C01,C02
Vanadium [He]	C01,C02
Zinc [He]	C01,C02

**SM 2540 C-2011 in Water**

Total Dissolved Solids	C01,C02
------------------------	---------

**\*\*Only compounds included in this list are associated with accredited analyses\*\***

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR  
 Project Number: [none]  
 Project Manager: Jim Ward

 Reported:  
 04/13/2021 13:02

### Laboratory Accreditations/Certifications

Code	Description	Number	Expires
C01	LA Environmental Lab Accreditation Program	01960	06/30/2021
C02	The NELAC Institute (NELAP)	TNI01397	06/30/2021
C03	Ms Dept of Health (Drinking Water Microbiology)	MS00021	12/31/2021
C04	Ms Dept of Health (Drinking Water Chemistry)	MS00021	12/31/2021
C05	Ms DEQ Lead Firm Certification	PBF-00000028	03/24/2021
C06	MsDEQ Asbestos Inspector : C.D. Bingham	ABI-00001348	02/12/2021
C07	MsDEQ Air Monitor : C.D. Bingham	AM-011572	02/13/2021
C08	MsDEQ Asbestos Inspector: C. W. Meins	ABI-00001821	09/04/2020
C09	MsDEQ Air Monitor : C.W. Meins	AM-011189	02/13/2021
C12			
C14	MsDEQ Lead Paint Inspector : C.D. Bingham	PBI-00003690	03/24/2021
C15	MsDEQ Lead Paint Inspector : C.W. Meins	PBI-00001740	03/24/2021
Not Certi			06/30/2020

### Report Definitions

TNC	Too Numerous To Count
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the minimum reporting limit
NR	Not Reported
RPD	Relative Percent Difference
ICV	Initial Calibration Verification
CCV	Continuing Calibration Verification Standard
SSV	Secondary Source Verification Standard
LCS	Lab Control Spike - Lab matrix prepared with known concentration of analyte/s of interest analyzed by method.
MS	Matrix Spike - Sample prepared with known concentration of analyte/s of interest analyzed by method.
MSD	Matrix Spike Duplicate - Duplicate sample prepared with known concentration of analyte/s of interest analyzed by method.
MRL	Minimum Reporting Limit
%REC	Percentage Recovery of known concentration added to matrix
Batch	Group of samples prepared for analysis not to exceed 20 samples.
Matrix	Material containing analyte/s of interest
Surrogate	Analyte added to sample to determine extraction efficiency of method.



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Ocean Springs, MS 39564  
228-875-6420 Phone  
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Choctaw Generation LP  
2391 Pensacola Rd.  
Ackerman MS, 39735

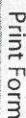
Project: CGLP CCR  
Project Number: [none]  
Project Manager: Jim Ward

Reported:  
04/13/2021 13:02

## Analyst Initials Key

<u>FullName</u>	<u>Initials</u>
Alyssa B Timbs	ABT
Cristina D Vargas	CDV
Charles L Vorhoff	CLV
Dortha L. Wells	DLW
Howard Mitch Spicer	HMS
Sarah E. Tomek	SET
Teresa Meins	TKM
Tina Tomek	TPT



M-M Lab  
WO #

2103321

Company Name: Choctaw Generation Limited Partnership LLP				Project Manager: Jim Ward			
Address: 2391 Pensacola Rd.				Purchase Order #:			
City: Ackerman		State: MS		Zip: 39735		Email Address: Ksheltone@envirocomp.net	
Phone: 662-387-5758				Sampler Name Printed: Kirk Shelton/Cam Clarke			
Fax:				Sampler Name Signed: <i>Kirk Shelton/Cam Clarke</i>			
Project Name: CGLP CCR				List Analyses Requested			
Project #:				Preservative			
Sample Identification		Sampling Date/Time		Matrix Code		# of Containers	
MW-9		3/15/21/17:26		W		4 G	
OW-2		3/15/21/16:51		W		4 G	
MW-13		3/16/21/11:56		W		4 G	
MW-7		3/16/21/13:40		W		4 G	
MW-14		3/16/21/14:20		W		4 G	
Field Blank		3/16/21/13:33		W		4 G	
Duplicate		---		W		4 G	
MW-12		3/15/21/16:20		W		4 G	
CCR-2		3/15/21/18:05		W		4 G	
CCR-3		3/15/21/18:35		W		4 G	
CCR-4		3/16/21/10:43		W		4 G	
Received on Ice? <input checked="" type="checkbox"/> N Thermometer # 48 Cooler # Receipt Temp Corrected (°C)				Sample Blank <input checked="" type="checkbox"/> Cooler			
Date & Time				By: <i>MS</i>			
Printed Name		Signature		Company		Date	
Relinquished by		Kirk Shelton		ECS Inc		3/16/21 1700	
Received by		FedEx					
Relinquished by		FedEx					
Received by		Sarah Tomack		MM		3/17/21 1000	
Relinquished by							
Received by							
Relinquished by							
Received by							
Notes: call ECS 662 397 6555 if any problems occur.				Turn Around Time & Reporting			
COOLER # 1122 1.3°C				Normal <input checked="" type="checkbox"/> All rush order requests must be prior approved.			
COOLER # 1119 0.4°C				Next Day* <input type="checkbox"/>			
COOLER # 1109 0.6°C				2nd Day* <input type="checkbox"/>			
				Other* <input type="checkbox"/>			
				QC Level: Level 1 <input type="checkbox"/> Level 2 <input type="checkbox"/> Level 3 <input type="checkbox"/>			
				Field Testing			
				ID# ID# ID# ID#			
				Field Test Field Test Field Test Field Test			
				Matrix:			
				W = Water			
				DW = Drinking Water			
				S = Solid			
				SO = Soil			
				SE = Sediment			
				L = Liquid			
				A = Air			
				O = Oil			
				SL = Sludge			
				Preservation:			
				1 = H2SO4			
				2 = H3PO4			
				3 = NaOH			
				4 = ZnCl4H10O6			
				5 = ZnCl4H10O6 & NaOH			
				6 = HNO3			
				7 = Na2S2O3			
				8 = HCl			
				9 = NaHSO4			



**Chain of Custody Record**

Lab ID# MS00021  
LELAP ID # 01960  
TNI ID # TNI01397

*pg 2 of 2*

Print Form

M-M Lab  
W/O #

*2103321*

Company Name: Choctaw Generation Limited Partnership LLP

Project Manager:

Jim Ward

Address: 2391 Pensacola Rd.

Purchase Order #:

City: Ackerman State: MS Zip: 39735

Email Address:

*KShillha@enviroxy.net*

Phone: 662-387-5758

Supplier Name Printed:

*Karl Shillha & Cam Clark*

Fax:

Supplier Name Signed:

*C-CL*

**CGLP CCR**

Project Name:

List Analyses Requested

ID#

Field Test

Matrix:

Project #:

Preservative

TDS

Lithium

ID#

Field Test

Matrix:

Sample Identification

Sampling Date/Time

Matrix Code

# of Containers

Grab (G) or Composite (C)

Chloride, Fluoride, Sulfate

ID#

Field Test

Matrix:

CCR-5

*3/16/21 / 9:40*

W

4

G

Antimony, Arsenic

ID#

Field Test

Matrix:

Barium, Boron, Beryllium

Cadmium, Chromium

Lead, Calcium, Cobalt

ID#

Field Test

Matrix:

Molybdenum, Selenium

Total Radium 226 & 228

ID#

Field Test

Matrix:

Field Test

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Matrix:

April 13, 2021

Tina Tomek  
Micro Methods Laboratory, Inc.  
P. O. Box 1410  
Ocean Springs, MS 39566

RE: Project: 2103321  
Pace Project No.: 20193984

Dear Tina Tomek:

Enclosed are the analytical results for sample(s) received by the laboratory on March 19, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Greensburg

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

Sincerely,



Karen Brown  
karen.brown@pacelabs.com  
(504)469-0333  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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

## CERTIFICATIONS

Project: 2103321

Pace Project No.: 20193984

---

### **Pace Analytical Services Pennsylvania**

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

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 9526

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

---

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 2103321  
Pace Project No.: 20193984

Lab ID	Sample ID	Matrix	Date Collected	Date Received
20193984001	2103321-01	Water	03/15/21 17:26	03/19/21 10:20
20193984002	2103321-02	Water	03/15/21 16:51	03/19/21 10:20
20193984003	2103321-03	Water	03/16/21 11:56	03/19/21 10:20
20193984004	2103321-04	Water	03/16/21 13:40	03/19/21 10:20
20193984005	2103321-05	Water	03/16/21 14:20	03/19/21 10:20
20193984006	2103321-06	Water	03/16/21 13:33	03/19/21 10:20
20193984007	2103321-07	Water	03/15/21 00:00	03/19/21 10:20
20193984008	2103321-08	Water	03/15/21 16:20	03/19/21 10:20
20193984009	2103321-09	Water	03/15/21 18:05	03/19/21 10:20
20193984010	2103321-10	Water	03/15/21 18:35	03/19/21 10:20
20193984011	2103321-11	Water	03/16/21 10:43	03/19/21 10:20
20193984012	2103321-12	Water	03/16/21 09:40	03/19/21 10:20

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE ANALYTE COUNT

Project: 2103321  
Pace Project No.: 20193984

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
20193984001	2103321-01	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
20193984002	2103321-02	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
20193984003	2103321-03	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
20193984004	2103321-04	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
20193984005	2103321-05	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
20193984006	2103321-06	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
20193984007	2103321-07	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
20193984008	2103321-08	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
20193984009	2103321-09	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
20193984010	2103321-10	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
20193984011	2103321-11	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
20193984012	2103321-12	EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: 2103321  
Pace Project No.: 20193984

---

**Method:** EPA 903.1  
**Description:** 903.1 Radium 226  
**Client:** Micro Methods  
**Date:** April 13, 2021

### General Information:

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

### Hold Time:

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

### Method Blank:

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

### Laboratory Control Spike:

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

### Matrix Spikes:

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

### Additional Comments:

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: 2103321  
Pace Project No.: 20193984

---

**Method:** EPA 904.0  
**Description:** 904.0 Radium 228  
**Client:** Micro Methods  
**Date:** April 13, 2021

### General Information:

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

### Hold Time:

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

### Method Blank:

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

### Laboratory Control Spike:

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

### Matrix Spikes:

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

### Additional Comments:

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

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2103321  
Pace Project No.: 20193984

<b>Sample: 2103321-01</b>		<b>Lab ID: 20193984001</b>	Collected: 03/15/21 17:26	Received: 03/19/21 10:20	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No. Qual
Radium-226	Pace Analytical Services - Greensburg			pCi/L	04/09/21 11:43	13982-63-3
	EPA 903.1	<b>1.09 ± 0.661 (0.852)</b>				
	<b>C:NA T:93%</b>					
Radium-228	Pace Analytical Services - Greensburg			pCi/L	04/12/21 15:52	15262-20-1
	EPA 904.0	<b>0.594 ± 0.421 (0.826)</b>				
	<b>C:73% T:98%</b>					
<b>Sample: 2103321-02</b>		<b>Lab ID: 20193984002</b>	Collected: 03/15/21 16:51	Received: 03/19/21 10:20	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No. Qual
Radium-226	Pace Analytical Services - Greensburg			pCi/L	04/09/21 12:03	13982-63-3
	EPA 903.1	<b>0.221 ± 0.253 (0.150)</b>				
	<b>C:NA T:97%</b>					
Radium-228	Pace Analytical Services - Greensburg			pCi/L	04/12/21 16:27	15262-20-1
	EPA 904.0	<b>0.247 ± 0.408 (0.887)</b>				
	<b>C:70% T:93%</b>					
<b>Sample: 2103321-03</b>		<b>Lab ID: 20193984003</b>	Collected: 03/16/21 11:56	Received: 03/19/21 10:20	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No. Qual
Radium-226	Pace Analytical Services - Greensburg			pCi/L	04/09/21 12:03	13982-63-3
	EPA 903.1	<b>0.172 ± 0.434 (0.806)</b>				
	<b>C:NA T:89%</b>					
Radium-228	Pace Analytical Services - Greensburg			pCi/L	04/12/21 15:56	15262-20-1
	EPA 904.0	<b>1.72 ± 0.710 (1.21)</b>				
	<b>C:73% T:86%</b>					
<b>Sample: 2103321-04</b>		<b>Lab ID: 20193984004</b>	Collected: 03/16/21 13:40	Received: 03/19/21 10:20	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No. Qual
Radium-226	Pace Analytical Services - Greensburg			pCi/L	04/09/21 12:03	13982-63-3
	EPA 903.1	<b>0.329 ± 0.342 (0.508)</b>				
	<b>C:NA T:95%</b>					
Radium-228	Pace Analytical Services - Greensburg			pCi/L	04/12/21 15:56	15262-20-1
	EPA 904.0	<b>1.01 ± 0.511 (0.923)</b>				
	<b>C:74% T:93%</b>					

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2103321  
Pace Project No.: 20193984

<b>Sample: 2103321-05</b>		<b>Lab ID: 20193984005</b>	Collected: 03/16/21 14:20	Received: 03/19/21 10:20	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.172 ± 0.407 (0.753)</b> <b>C:NA T:89%</b>	pCi/L	04/09/21 12:03	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.655 ± 0.507 (1.02)</b> <b>C:73% T:92%</b>	pCi/L	04/12/21 15:56	15262-20-1	
<b>Sample: 2103321-06</b>		<b>Lab ID: 20193984006</b>	Collected: 03/16/21 13:33	Received: 03/19/21 10:20	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.0602 ± 0.354 (0.723)</b> <b>C:NA T:90%</b>	pCi/L	04/09/21 12:03	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.0588 ± 0.514 (1.17)</b> <b>C:73% T:89%</b>	pCi/L	04/12/21 15:56	15262-20-1	
<b>Sample: 2103321-07</b>		<b>Lab ID: 20193984007</b>	Collected: 03/15/21 00:00	Received: 03/19/21 10:20	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.164 ± 0.387 (0.716)</b> <b>C:NA T:102%</b>	pCi/L	04/09/21 12:03	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>-0.0425 ± 0.809 (1.85)</b> <b>C:69% T:87%</b>	pCi/L	04/12/21 19:23	15262-20-1	
<b>Sample: 2103321-08</b>		<b>Lab ID: 20193984008</b>	Collected: 03/15/21 16:20	Received: 03/19/21 10:20	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.123 ± 0.382 (0.740)</b> <b>C:NA T:89%</b>	pCi/L	04/09/21 12:03	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>1.24 ± 0.729 (1.38)</b> <b>C:73% T:95%</b>	pCi/L	04/12/21 19:23	15262-20-1	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2103321  
Pace Project No.: 20193984

<b>Sample: 2103321-09</b>		<b>Lab ID: 20193984009</b>	Collected: 03/15/21 18:05	Received: 03/19/21 10:20	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.429 ± 0.526 (0.864)</b> <b>C:NA T:93%</b>	pCi/L	04/09/21 12:03	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.461 ± 0.735 (1.59)</b> <b>C:72% T:87%</b>	pCi/L	04/12/21 19:23	15262-20-1	
<b>Sample: 2103321-10</b>		<b>Lab ID: 20193984010</b>	Collected: 03/15/21 18:35	Received: 03/19/21 10:20	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.231 ± 0.392 (0.692)</b> <b>C:NA T:91%</b>	pCi/L	04/09/21 12:25	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.205 ± 0.833 (1.87)</b> <b>C:65% T:91%</b>	pCi/L	04/12/21 19:23	15262-20-1	
<b>Sample: 2103321-11</b>		<b>Lab ID: 20193984011</b>	Collected: 03/16/21 10:43	Received: 03/19/21 10:20	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.599 ± 0.475 (0.645)</b> <b>C:NA T:85%</b>	pCi/L	04/09/21 12:25	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.129 ± 0.562 (1.27)</b> <b>C:67% T:90%</b>	pCi/L	04/12/21 17:51	15262-20-1	
<b>Sample: 2103321-12</b>		<b>Lab ID: 20193984012</b>	Collected: 03/16/21 09:40	Received: 03/19/21 10:20	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.000 ± 0.306 (0.686)</b> <b>C:NA T:88%</b>	pCi/L	04/09/21 12:25	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.757 ± 0.520 (1.01)</b> <b>C:71% T:98%</b>	pCi/L	04/12/21 17:52	15262-20-1	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL - RADIOCHEMISTRY

Project: 2103321  
Pace Project No.: 20193984

QC Batch:	440770	Analysis Method:	EPA 903.1
QC Batch Method:	EPA 903.1	Analysis Description:	903.1 Radium-226
		Laboratory:	Pace Analytical Services - Greensburg
Associated Lab Samples:	20193984001, 20193984002, 20193984003, 20193984004, 20193984005, 20193984006, 20193984007, 20193984008, 20193984009, 20193984010, 20193984011, 20193984012		

METHOD BLANK:	2127957	Matrix:	Water
Associated Lab Samples:	20193984001, 20193984002, 20193984003, 20193984004, 20193984005, 20193984006, 20193984007, 20193984008, 20193984009, 20193984010, 20193984011, 20193984012		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0921 ± 0.286 (0.553) C:NA T:94%	pCi/L	04/09/21 11:43	

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

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL - RADIOCHEMISTRY

Project: 2103321  
Pace Project No.: 20193984

QC Batch:	440771	Analysis Method:	EPA 904.0
QC Batch Method:	EPA 904.0	Analysis Description:	904.0 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg
Associated Lab Samples:	20193984001, 20193984002, 20193984003, 20193984004, 20193984005, 20193984006, 20193984007, 20193984008, 20193984009, 20193984010, 20193984011, 20193984012		

METHOD BLANK:	2127958	Matrix:	Water
Associated Lab Samples:	20193984001, 20193984002, 20193984003, 20193984004, 20193984005, 20193984006, 20193984007, 20193984008, 20193984009, 20193984010, 20193984011, 20193984012		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.305 ± 0.335 (0.700) C:74% T:100%	pCi/L	04/12/21 15:51	

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

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## QUALIFIERS

Project: 2103321  
Pace Project No.: 20193984

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### DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Act - Activity

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

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The Nelac Institute

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 2103321  
Pace Project No.: 20193984

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
20193984001	2103321-01	EPA 903.1	440770		
20193984002	2103321-02	EPA 903.1	440770		
20193984003	2103321-03	EPA 903.1	440770		
20193984004	2103321-04	EPA 903.1	440770		
20193984005	2103321-05	EPA 903.1	440770		
20193984006	2103321-06	EPA 903.1	440770		
20193984007	2103321-07	EPA 903.1	440770		
20193984008	2103321-08	EPA 903.1	440770		
20193984009	2103321-09	EPA 903.1	440770		
20193984010	2103321-10	EPA 903.1	440770		
20193984011	2103321-11	EPA 903.1	440770		
20193984012	2103321-12	EPA 903.1	440770		
20193984001	2103321-01	EPA 904.0	440771		
20193984002	2103321-02	EPA 904.0	440771		
20193984003	2103321-03	EPA 904.0	440771		
20193984004	2103321-04	EPA 904.0	440771		
20193984005	2103321-05	EPA 904.0	440771		
20193984006	2103321-06	EPA 904.0	440771		
20193984007	2103321-07	EPA 904.0	440771		
20193984008	2103321-08	EPA 904.0	440771		
20193984009	2103321-09	EPA 904.0	440771		
20193984010	2103321-10	EPA 904.0	440771		
20193984011	2103321-11	EPA 904.0	440771		
20193984012	2103321-12	EPA 904.0	440771		

## REPORT OF LABORATORY ANALYSIS

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# MICRO-MET

LABORATORY, INC.

WO#: 20193984



20193984

TRACT  
R

### Sending Laboratory:

Micro-Methods Laboratory, Inc.  
6500 Sunplex Drive  
Ocean Springs, MS 39564  
Phone: 228.875.6420  
Fax: 228.875.6423

Project Manager: Teresa Meins

### Subcontracted Laboratory:

Pace Analytical  
1000 Riverbend Blvd. Suite F  
St. Rose, LA 70087  
Phone: -  
Fax: -

### Work Order: 2103321

Analysis	Due	Expires	Comments
<b>Sample ID: 2103321-01 Water Sampled: 03/15/2021 17:26 Sample Name: MW-9</b>			
Radium, Total 226 & 228 by EPA 903.1 & 9C 03/25/2021 04/12/2021 17:26			
Containers Supplied: 1000mL Plastic w/HNO3 (A) 1000mL Plastic w/HNO3 (B)			
<b>Sample ID: 2103321-02 Water Sampled: 03/15/2021 16:51 Sample Name: OW-2</b>			
Radium, Total 226 & 228 by EPA 903.1 & 9C 03/25/2021 04/12/2021 16:51			
Containers Supplied: 1000mL Plastic w/HNO3 (A) 1000mL Plastic w/HNO3 (B)			
<b>Sample ID: 2103321-03 Water Sampled: 03/16/2021 11:56 Sample Name: MW-13</b>			
Radium, Total 226 & 228 by EPA 903.1 & 9C 03/25/2021 04/13/2021 11:56			
Containers Supplied: 1000mL Plastic w/HNO3 (A) 1000mL Plastic w/HNO3 (B)			
<b>Sample ID: 2103321-04 Water Sampled: 03/16/2021 13:40 Sample Name: MW-7</b>			
Radium, Total 226 & 228 by EPA 903.1 & 9C 03/25/2021 04/13/2021 13:40			
Containers Supplied: 1000mL Plastic w/HNO3 (A) 1000mL Plastic w/HNO3 (B)			
<b>Sample ID: 2103321-05 Water Sampled: 03/16/2021 14:20 Sample Name: MW-14</b>			
Radium, Total 226 & 228 by EPA 903.1 & 9C 03/25/2021 04/13/2021 14:20			

Released By Smah Jomeh Date 3/18/21 1630

Released By UPS Date 3/19/21 10:20

Released By \_\_\_\_\_ Date \_\_\_\_\_

Released By \_\_\_\_\_ Date \_\_\_\_\_

Released By \_\_\_\_\_ Date \_\_\_\_\_

Received By UPS Date 3/18/21 1630

Received By A. J. Pace Date 3/19/21 10:20

Received By \_\_\_\_\_ Date \_\_\_\_\_

Received By \_\_\_\_\_ Date \_\_\_\_\_

Received By \_\_\_\_\_ Date \_\_\_\_\_



# MICRO-METHODS

LABORATORY, INC.

## SUBCONTRACT ORDER (Continued)

### Work Order: 2103321 (Continued)

Analysis	Due	Expires	Comments
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*Containers Supplied:*

1000mL Plastic w/HNO3 (A) 1000mL Plastic w/HNO3 (B)

**Sample ID: 2103321-06 Water Sampled: 03/16/2021 13:33 Sample Name: Field Blank**

Radium, Total 226 & 228 by EPA 903.1 & 9C 03/25/2021 04/13/2021 13:33

*Containers Supplied:*

1000mL Plastic w/HNO3 (A) 1000mL Plastic w/HNO3 (B)

**Sample ID: 2103321-07 Water Sampled: 03/15/2021 00:00 Sample Name: Duplicate**

Radium, Total 226 & 228 by EPA 903.1 & 9C 03/25/2021 04/12/2021 00:00

*Containers Supplied:*

1000mL Plastic w/HNO3 (A) 1000mL Plastic w/HNO3 (B)

**Sample ID: 2103321-08 Water Sampled: 03/15/2021 16:20 Sample Name: MW-12**

Radium, Total 226 & 228 by EPA 903.1 & 9C 03/25/2021 04/12/2021 16:20

*Containers Supplied:*

1000mL Plastic w/HNO3 (A) 1000mL Plastic w/HNO3 (B)

**Sample ID: 2103321-09 Water Sampled: 03/15/2021 18:05 Sample Name: CCR-2**

Radium, Total 226 & 228 by EPA 903.1 & 9C 03/25/2021 04/12/2021 18:05

*Containers Supplied:*

1000mL Plastic w/HNO3 (A) 1000mL Plastic w/HNO3 (B)

**Sample ID: 2103321-10 Water Sampled: 03/15/2021 18:35 Sample Name: CCR-3**

Radium, Total 226 & 228 by EPA 903.1 & 9C 03/25/2021 04/12/2021 18:35

*Containers Supplied:*

1000mL Plastic w/HNO3 (A) 1000mL Plastic w/HNO3 (B)

**Sample ID: 2103321-11 Water Sampled: 03/16/2021 10:43 Sample Name: CCR-4**

Radium, Total 226 & 228 by EPA 903.1 & 9C 03/25/2021 04/13/2021 10:43

*Containers Supplied:*

1000mL Plastic w/HNO3 (A) 1000mL Plastic w/HNO3 (B)

**Sample ID: 2103321-12 Water Sampled: 03/16/2021 09:40 Sample Name: CCR-5**

Released By Smah/omah Date 3/18/21 1630

Released By VPS Date 3/19/21 10:20

Released By \_\_\_\_\_ Date \_\_\_\_\_

Released By \_\_\_\_\_ Date \_\_\_\_\_

Released By \_\_\_\_\_ Date \_\_\_\_\_

Released By \_\_\_\_\_ Date \_\_\_\_\_

Received By VPS Date 3/18/21 1630

Received By Ariz Pace Date 3/19/21 10:20

Received By \_\_\_\_\_ Date \_\_\_\_\_

Received By \_\_\_\_\_ Date \_\_\_\_\_

Received By \_\_\_\_\_ Date \_\_\_\_\_

Received By \_\_\_\_\_ Date \_\_\_\_\_



# MICRO-METHODS

LABORATORY, INC.

## SUBCONTRACT ORDER (Continued)

Work Order: 2103321 (Continued)

Analysis	Due	Expires	Comments
Sample ID: 2103321-12    Water    Sampled: 03/16/2021 09:40    Sample Name: CCR-5			
Radium, Total 226 & 228 by EPA 903.1 & 9C    03/25/2021    04/13/2021 09:40			
Containers Supplied: 1000mL Plastic w/HNO3 (A)    1000mL Plastic w/HNO3 (B)			

Released By Shahjomeh Date 3/18/21 1630  
Released By UPS Date 3/19/21 10:20  
Released By \_\_\_\_\_ Date \_\_\_\_\_  
Released By \_\_\_\_\_ Date \_\_\_\_\_  
Released By \_\_\_\_\_ Date \_\_\_\_\_

Received By UPS Date 3/18/21 1630  
Received By AJ Pace Date 3/19/21 10:20  
Received By \_\_\_\_\_ Date \_\_\_\_\_  
Received By \_\_\_\_\_ Date \_\_\_\_\_  
Received By \_\_\_\_\_ Date \_\_\_\_\_



## Sample Condition Upc

WO#: 20193984

PM: KHB

Due Date: 04/12/21

CLIENT: 20-MICRO

1000 Riverbend Blvd., Suite F  
St. Rose, LA 70087

F

Courier: ☐ Pace Courier ☐ Hired Courier ☐ Fed X ☒ UPS ☐ DHL ☐ USPS ☐ Customer ☐ Other

Custody Seal on Cooler/Box Present: [see COC]

Custody Seals intact: ☒ Yes ☐ NoThermometer Used: ☐ Therm Fisher IR 7  
☐ Therm Fisher IR 10Type of Ice: Wet Blue None

Samples on ice: [see COC]

Cooler Temperature: [see COC]

Temp should be above freezing to 6°C

Date and Initials of person examining contents: KHB

Temp must be measured from Temperature blank when present

Comments:

Temperature Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	1
Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2
Chain of Custody Complete:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	5
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8
Filtered vol. Rec. for Diss. tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	9
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10
All containers received within manufacture's precautionary and/or expiration dates.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11
All containers needing chemical preservation have been checked (except VOA, coliform, & O&G).	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12
All containers preservation checked found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	15

2 Liters w/ HNO<sub>3</sub>

## Client Notification/ Resolution:

Person Contacted: \_\_\_\_\_

Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_



Mailing Address:  
PO Box 1410  
Ocean Springs, MS  
39566-1410

## DOCUMENT CHANGE NOTICE

### Revised Report

6500 Sunplex Drive  
Ocean Springs, MS 39564  
228.875.6420 Phone  
228.875.6423 Fax

January 18, 2022

Jim Ward

Work Order # : 2105488

Choctaw Generation LP  
2391 Pensacola Rd.

Purchase Order # RDH14390

Ackerman, MS 39735

RE: CGLP CCR Semi Annual

Enclosed is the revised report for samples received by the laboratory on 05/27/2021 10:33. This report supercedes any previous version of the above noted work order. If you have any questions concerning this report, please feel free to contact the office.

Sincerely,

Mitch Spicer

Lab Director



#### DISCLAIMER

The results only relate to the items or the sample and/or samples received by the laboratory. This report shall not be reproduced except in full, without the approval of the laboratory. All NELAP certified test methods performed meet the requirements of NELAC 2009 Standards. Any variances and/or deviations specific to this analytical report are referenced in the lab report using qualifiers and detailed explanations found in the case narrative.

Choctaw Generation LP  
2391 Pensacola Rd.  
Ackerman MS, 39735Project: CGLP CCR Semi Annual  
Project Number: Annual  
Project Manager: Jim WardReported:  
01/18/2022 07:58

## ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date/Time Sampled	Sampled by	Date/Time Received
MW-7	2105488-01	Water	05/26/2021 12:00	Cam Clark	05/27/2021 10:33
MW-9	2105488-02	Water	05/26/2021 10:48	Cam Clark	05/27/2021 10:33
MW-12	2105488-03	Water	05/26/2021 10:05	Cam Clark	05/27/2021 10:33
MW-13	2105488-04	Water	05/26/2021 12:55	Cam Clark	05/27/2021 10:33
MW-14	2105488-05	Water	05/26/2021 10:55	Cam Clark	05/27/2021 10:33
Field Blank	2105488-06	Water	05/26/2021 12:35	Cam Clark	05/27/2021 10:33
Duplicate	2105488-07	Water	05/26/2021 00:00	Cam Clark	05/27/2021 10:33
OW-2	2105488-08	Water	05/26/2021 09:25	Cam Clark	05/27/2021 10:33
CCR-2	2105488-09	Water	05/26/2021 12:05	Cam Clark	05/27/2021 10:33
CCR-3	2105488-10	Water	05/26/2021 11:23	Cam Clark	05/27/2021 10:33
CCR-4	2105488-11	Water	05/26/2021 08:26	Cam Clark	05/27/2021 10:33
CCR-5	2105488-12	Water	05/26/2021 08:45	Cam Clark	05/27/2021 10:33

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Micro-Methods Laboratory, Inc.

Revised Report

Tina Tomek For Teresa Meins, Inorganic Supervisor

Page 2 of 48

Choctaw Generation LP  
2391 Pensacola Rd.  
Ackerman MS, 39735

Project: CGLP CCR Semi Annual  
Project Number: Annual  
Project Manager: Jim Ward

**Reported:**  
01/18/2022 07:58

### Sample Receipt Conditions

Date/Time Received: 5/27/2021 10:33:00AM

Shipped by: Fed Ex

Received by: Sarah E. Tomek

Submitted by: Cam Clark

Date/Time Logged: 5/28/2021 10:46:00AM

Logged by: Sarah E. Tomek

Cooler ID: #1130

Receipt Temperature: 5.5 °C

<i>Cooler Custody Seals Present</i>	Yes
<i>Containers Intact</i>	Yes
<i>COC/Labels Agree</i>	Yes
<i>Labels Complete</i>	Yes
<i>COC Complete</i>	Yes
<i>Volatile Vial Headspace &gt;6mm</i>	No
<i>Field Sheet/Instructions Included</i>	No
<i>Samples Rejected/Documented in Log</i>	No
<i>Temp Taken From Temp Blank</i>	Yes
<i>Temp Taken From Sample Container</i>	No
<i>Temp Taken From Cooler</i>	No
<i>COC meets acceptance criteria</i>	Yes

<i>Received on Ice but Not Frozen</i>	Yes
<i>No Ice, Short Trip</i>	No
<i>Obvious Contamination</i>	No
<i>Rush to meet HT</i>	No
<i>Received within HT</i>	Yes
<i>Proper Containers for Analysis</i>	Yes
<i>Correct Preservation</i>	Yes
<i>Adequate Sample for Analysis</i>	Yes
<i>Sample Custody Seals Present</i>	Yes
<i>Samples Missing from COC/Cooler</i>	No

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR Semi Annual  
 Project Number: Annual  
 Project Manager: Jim Ward

 Reported:  
 01/18/2022 07:58

 Cooler ID: #409

 Receipt Temperature: 3.2 °C

<i>Cooler Custody Seals Present</i>	Yes	<i>Received on Ice but Not Frozen</i>	Yes
<i>Containers Intact</i>	Yes	<i>No Ice, Short Trip</i>	No
<i>COC/Labels Agree</i>	Yes	<i>Obvious Contamination</i>	No
<i>Labels Complete</i>	Yes	<i>Rush to meet HT</i>	No
<i>COC Complete</i>	Yes	<i>Received within HT</i>	Yes
<i>Volatile Vial Headspace &gt;6mm</i>	No	<i>Proper Containers for Analysis</i>	Yes
<i>Field Sheet/Instructions Included</i>	No	<i>Correct Preservation</i>	Yes
<i>Samples Rejected/Documented in Log</i>	No	<i>Adequate Sample for Analysis</i>	Yes
<i>Temp Taken From Temp Blank</i>	Yes	<i>Sample Custody Seals Present</i>	Yes
<i>Temp Taken From Sample Container</i>	No	<i>Samples Missing from COC/Cooler</i>	No
<i>Temp Taken From Cooler</i>	No		
<i>COC meets acceptance criteria</i>	Yes		

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR Semi Annual  
 Project Number: Annual  
 Project Manager: Jim Ward

 Reported:  
 01/18/2022 07:58

 Cooler ID: #680

 Receipt Temperature: 0.4 °C

<i>Cooler Custody Seals Present</i>	Yes	<i>Received on Ice but Not Frozen</i>	Yes
<i>Containers Intact</i>	Yes	<i>No Ice, Short Trip</i>	No
<i>COC/Labels Agree</i>	Yes	<i>Obvious Contamination</i>	No
<i>Labels Complete</i>	Yes	<i>Rush to meet HT</i>	No
<i>COC Complete</i>	Yes	<i>Received within HT</i>	Yes
<i>Volatile Vial Headspace &gt;6mm</i>	No	<i>Proper Containers for Analysis</i>	Yes
<i>Field Sheet/Instructions Included</i>	No	<i>Correct Preservation</i>	Yes
<i>Samples Rejected/Documented in Log</i>	No	<i>Adequate Sample for Analysis</i>	Yes
<i>Temp Taken From Temp Blank</i>	Yes	<i>Sample Custody Seals Present</i>	Yes
<i>Temp Taken From Sample Container</i>	No	<i>Samples Missing from COC/Cooler</i>	No
<i>Temp Taken From Cooler</i>	No		
<i>COC meets acceptance criteria</i>	Yes		

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Choctaw Generation LP  
2391 Pensacola Rd.  
Ackerman MS, 39735Project: CGLP CCR Semi Annual  
Project Number: Annual  
Project Manager: Jim WardReported:  
01/18/2022 07:58**CASE NARRATIVE SUMMARY**

*All reported results are within Micro-Methods Laboratory, Inc. defined laboratory quality control objectives unless detailed in narrative summary or identified as qualifications. NOTE: All results listed on this report are calculated on a wet weight basis (as received by the laboratory) unless otherwise noted in the analysis qualification sections.*

**Summary Comments:**

See attached Radiological results from Sub-Contract Laboratory.

REVISED REPORT-1/17/2022-SCH:

CAR#M011722-01: Lithium results were corrected for Calcium interference and a revised report issued.

Qualification: *No Data Qualification*Analyte & Samples(s) Qualified: *None*

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Micro-Methods Laboratory, Inc.

Revised Report

Tina Tomek For Teresa Meins, Inorganic Supervisor

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR Semi Annual  
 Project Number: Annual  
 Project Manager: Jim Ward

 Reported:  
 01/18/2022 07:58

**MW-7**
**2105488-01 (Water)**

Analyte	Result	MRL	Units	Dil	Batch	Analyst	Date Time Prepared	Date Time Analyzed	Method	Notes
<b>Classical Chemistry Parameters</b>										
Fluoride	0.22	0.22	mg/L	1.0	1F02071	CDV	06/02/2021 11:50	06/02/2021 15:28	SM 4500-F C 2011	
<b>Metals by EPA 200 Series Methods ICP-AES</b>										
Barium 455.403 [Radial]	0.073	0.010	mg/L	1.0	1F01032	CLV	06/01/2021 09:25	06/10/2021 12:36	EPA 200.7 Rev 4.4	
Boron 249.773 [Radial]	ND	0.050	"	"	"	CLV	"	"	"	
Calcium 315.887 [Radial]	32.0	0.050	"	"	"	CLV	"	"	"	
Lithium 610.362 [Axial]	ND	0.040	"	"	"	CLV	"	"	"	
<b>Metals by EPA 200 Series Methods ICP-MS [Analysis Mode]</b>										
Antimony [He]	ND	0.00200	mg/L	1.0	1F01031	SCH	"	06/07/2021 12:04	EPA 200.8 Rev 5.4	
Arsenic [He]	ND	0.00200	"	"	"	SCH	"	"	"	
Barium [He]	0.0718	0.00100	"	"	"	SCH	"	"	"	
Beryllium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Cadmium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Chromium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Cobalt [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Lead [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Molybdenum [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Selenium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Thallium [He]	ND	0.00500	"	"	"	SCH	"	"	"	
<b>Mercury by EPA 200 Series Methods CVAAS</b>										
Mercury	ND	0.002	mg/L	1.0	1F03042	JTR	06/02/2021 10:00	06/04/2021 15:03	EPA 245.1 Rev 3.0	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR Semi Annual  
 Project Number: Annual  
 Project Manager: Jim Ward

 Reported:  
 01/18/2022 07:58

**MW-9**
**2105488-02 (Water)**

Analyte	Result	MRL	Units	Dil	Batch	Analyst	Date Time Prepared	Date Time Analyzed	Method	Notes
<b>Classical Chemistry Parameters</b>										
Fluoride	0.51	0.22	mg/L	1.0	1F02071	CDV	06/02/2021 11:50	06/02/2021 15:28	SM 4500-F C 2011	
<b>Metals by EPA 200 Series Methods ICP-AES</b>										
Barium 455.403 [Radial]	0.090	0.010	mg/L	1.0	1F01032	CLV	06/01/2021 09:25	06/10/2021 12:47	EPA 200.7 Rev 4.4	
Boron 249.773 [Radial]	ND	0.050	"	"	"	CLV	"	"	"	
Calcium 315.887 [Radial]	61.7	0.100	"	2.0	"	CLV	"	06/11/2021 15:18	"	
Lithium 610.362 [Axial]	0.075	0.040	"	1.0	"	CLV	"	06/10/2021 12:47	"	
<b>Metals by EPA 200 Series Methods ICP-MS [Analysis Mode]</b>										
Antimony [He]	ND	0.00200	mg/L	1.0	1F01031	SCH	"	06/07/2021 12:25	EPA 200.8 Rev 5.4	
Arsenic [He]	ND	0.00200	"	"	"	SCH	"	"	"	
Barium [He]	0.0898	0.00100	"	"	"	SCH	"	"	"	
Beryllium [He]	0.00491	0.00100	"	"	"	SCH	"	"	"	
Cadmium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Chromium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Cobalt [He]	0.0209	0.00100	"	"	"	SCH	"	"	"	
Lead [He]	0.00111	0.00100	"	"	"	SCH	"	"	"	
Molybdenum [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Selenium [He]	0.00453	0.00100	"	"	"	SCH	"	"	"	
Thallium [He]	ND	0.00500	"	"	"	SCH	"	"	"	
<b>Mercury by EPA 200 Series Methods CVAAS</b>										
Mercury	ND	0.002	mg/L	1.0	1F03042	JTR	06/02/2021 10:00	06/04/2021 15:03	EPA 245.1 Rev 3.0	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR Semi Annual  
 Project Number: Annual  
 Project Manager: Jim Ward

 Reported:  
 01/18/2022 07:58

**MW-12**
**2105488-03 (Water)**

Analyte	Result	MRL	Units	Dil	Batch	Analyst	Date Time Prepared	Date Time Analyzed	Method	Notes
<b>Classical Chemistry Parameters</b>										
Fluoride	ND	0.22	mg/L	1.0	1F02071	CDV	06/02/2021 11:50	06/02/2021 15:28	SM 4500-F C 2011	
<b>Metals by EPA 200 Series Methods ICP-AES</b>										
<b>Barium 455.403 [Radial]</b>	<b>0.210</b>	0.010	mg/L	1.0	1F01032	CLV	06/01/2021 09:25	06/10/2021 12:50	EPA 200.7 Rev 4.4	
Boron 249.773 [Radial]	ND	0.050	"	"	"	CLV	"	"	"	
<b>Calcium 315.887 [Radial]</b>	<b>32.1</b>	0.050	"	"	"	CLV	"	"	"	
Lithium 610.362 [Axial]	ND	0.040	"	"	"	CLV	"	"	"	
<b>Metals by EPA 200 Series Methods ICP-MS [Analysis Mode]</b>										
Antimony [He]	ND	0.00200	mg/L	1.0	1F01031	SCH	"	06/07/2021 12:31	EPA 200.8 Rev 5.4	
Arsenic [He]	ND	0.00200	"	"	"	SCH	"	"	"	
<b>Barium [He]</b>	<b>0.210</b>	0.00100	"	"	"	SCH	"	"	"	
Beryllium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Cadmium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Chromium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
<b>Cobalt [He]</b>	<b>0.0220</b>	0.00100	"	"	"	SCH	"	"	"	
Lead [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Molybdenum [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Selenium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Thallium [He]	ND	0.00500	"	"	"	SCH	"	"	"	
<b>Mercury by EPA 200 Series Methods CVAAS</b>										
Mercury	ND	0.002	mg/L	1.0	1F03042	JTR	06/02/2021 10:00	06/04/2021 15:03	EPA 245.1 Rev 3.0	

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Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR Semi Annual  
 Project Number: Annual  
 Project Manager: Jim Ward

 Reported:  
 01/18/2022 07:58

**MW-13**
**2105488-04 (Water)**

Analyte	Result	MRL	Units	Dil	Batch	Analyst	Date Time Prepared	Date Time Analyzed	Method	Notes
<b>Classical Chemistry Parameters</b>										
Fluoride	ND	0.22	mg/L	1.0	1F02071	CDV	06/02/2021 11:50	06/02/2021 15:28	SM 4500-F C 2011	
<b>Metals by EPA 200 Series Methods ICP-AES</b>										
<b>Barium 455.403 [Radial]</b>	<b>0.173</b>	0.010	mg/L	1.0	1F01032	CLV	06/01/2021 09:25	06/10/2021 12:54	EPA 200.7 Rev 4.4	
Boron 249.773 [Radial]	ND	0.050	"	"	"	CLV	"	"	"	
<b>Calcium 315.887 [Radial]</b>	<b>20.0</b>	0.050	"	"	"	CLV	"	"	"	
Lithium 610.362 [Axial]	ND	0.040	"	"	"	CLV	"	"	"	
<b>Metals by EPA 200 Series Methods ICP-MS [Analysis Mode]</b>										
Antimony [He]	ND	0.00200	mg/L	1.0	1F01031	SCH	"	06/07/2021 12:38	EPA 200.8 Rev 5.4	
Arsenic [He]	ND	0.00200	"	"	"	SCH	"	"	"	
<b>Barium [He]</b>	<b>0.168</b>	0.00100	"	"	"	SCH	"	"	"	
Cadmium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Chromium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Cobalt [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Lead [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Molybdenum [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Selenium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Thallium [He]	ND	0.00500	"	"	"	SCH	"	"	"	
<b>Mercury by EPA 200 Series Methods CVAAS</b>										
Mercury	ND	0.002	mg/L	1.0	1F03042	JTR	06/02/2021 10:00	06/04/2021 15:03	EPA 245.1 Rev 3.0	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR Semi Annual  
 Project Number: Annual  
 Project Manager: Jim Ward

 Reported:  
 01/18/2022 07:58

**MW-14**
**2105488-05 (Water)**

Analyte	Result	MRL	Units	Dil	Batch	Analyst	Date Time Prepared	Date Time Analyzed	Method	Notes
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**Classical Chemistry Parameters**

Fluoride	ND	0.22	mg/L	1.0	1F02071	CDV	06/02/2021 11:50	06/02/2021 15:28	SM 4500-F C 2011	
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**Metals by EPA 200 Series Methods ICP-AES**

<b>Barium 455.403 [Radial]</b>	<b>0.013</b>	0.010	mg/L	1.0	1F01032	CLV	06/01/2021 09:25	06/10/2021 12:57	EPA 200.7 Rev 4.4	
Boron 249.773 [Radial]	ND	0.050	"	"	"	CLV	"	"	"	
<b>Calcium 315.887 [Radial]</b>	<b>0.643</b>	0.050	"	"	"	CLV	"	"	"	
Lithium 610.362 [Axial]	ND	0.040	"	"	"	CLV	"	"	"	

**Metals by EPA 200 Series Methods ICP-MS [Analysis Mode]**

Antimony [He]	ND	0.00200	mg/L	1.0	1F01031	SCH	"	06/07/2021 12:45	EPA 200.8 Rev 5.4	
Arsenic [He]	ND	0.00200	"	"	"	SCH	"	"	"	
<b>Barium [He]</b>	<b>0.0128</b>	0.00100	"	"	"	SCH	"	"	"	
Beryllium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Cadmium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Chromium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Cobalt [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Lead [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Molybdenum [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Selenium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Thallium [He]	ND	0.00500	"	"	"	SCH	"	"	"	

**Mercury by EPA 200 Series Methods CVAAS**

Mercury	ND	0.002	mg/L	1.0	1F03042	JTR	06/02/2021 10:00	06/04/2021 15:03	EPA 245.1 Rev 3.0	
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The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR Semi Annual  
 Project Number: Annual  
 Project Manager: Jim Ward

 Reported:  
 01/18/2022 07:58

**Field Blank**
**2105488-06 (Water)**

Analyte	Result	MRL	Units	Dil	Batch	Analyst	Date Time Prepared	Date Time Analyzed	Method	Notes
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**Classical Chemistry Parameters**

Fluoride	ND	0.22	mg/L	1.0	1F02071	CDV	06/02/2021 11:50	06/02/2021 15:28	SM 4500-F C 2011	
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**Metals by EPA 200 Series Methods ICP-AES**

Barium 455.403 [Radial]	ND	0.010	mg/L	1.0	1F01032	CLV	06/01/2021 09:25	06/10/2021 13:08	EPA 200.7 Rev 4.4	
Boron 249.773 [Radial]	ND	0.050	"	"	"	CLV	"	"	"	
Calcium 315.887 [Radial]	0.288	0.050	"	"	"	CLV	"	"	"	
Lithium 610.362 [Axial]	ND	0.040	"	"	"	CLV	"	"	"	

**Metals by EPA 200 Series Methods ICP-MS [Analysis Mode]**

Antimony [He]	ND	0.00200	mg/L	1.0	1F01031	SCH	"	06/07/2021 13:05	EPA 200.8 Rev 5.4	
Arsenic [He]	ND	0.00200	"	"	"	SCH	"	"	"	
Barium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Beryllium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Cadmium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Chromium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Cobalt [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Lead [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Molybdenum [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Selenium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Thallium [He]	ND	0.00500	"	"	"	SCH	"	"	"	

**Mercury by EPA 200 Series Methods CVAAS**

Mercury	ND	0.002	mg/L	1.0	1F03042	JTR	06/02/2021 10:00	06/04/2021 15:03	EPA 245.1 Rev 3.0	
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The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR Semi Annual  
 Project Number: Annual  
 Project Manager: Jim Ward

 Reported:  
 01/18/2022 07:58

**Duplicate**
**2105488-07 (Water)**

Analyte	Result	MRL	Units	Dil	Batch	Analyst	Date Time Prepared	Date Time Analyzed	Method	Notes
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**Classical Chemistry Parameters**

Fluoride	ND	0.22	mg/L	1.0	1F02071	CDV	06/02/2021 11:50	06/02/2021 15:28	SM 4500-F C 2011	
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**Metals by EPA 200 Series Methods ICP-AES**

<b>Barium 455.403 [Radial]</b>	<b>0.013</b>	0.010	mg/L	1.0	1F01032	CLV	06/01/2021 09:25	06/10/2021 13:12	EPA 200.7 Rev 4.4	
Boron 249.773 [Radial]	ND	0.050	"	"	"	CLV	"	"	"	
<b>Calcium 315.887 [Radial]</b>	<b>0.635</b>	0.050	"	"	"	CLV	"	"	"	
Lithium 610.362 [Axial]	ND	0.040	"	"	"	CLV	"	"	"	

**Metals by EPA 200 Series Methods ICP-MS [Analysis Mode]**

Antimony [He]	ND	0.00200	mg/L	1.0	1F01031	SCH	"	06/07/2021 13:11	EPA 200.8 Rev 5.4	
Arsenic [He]	ND	0.00200	"	"	"	SCH	"	"	"	
<b>Barium [He]</b>	<b>0.0129</b>	0.00100	"	"	"	SCH	"	"	"	
Beryllium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Cadmium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Chromium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Cobalt [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Lead [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Molybdenum [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Selenium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Thallium [He]	ND	0.00500	"	"	"	SCH	"	"	"	

**Mercury by EPA 200 Series Methods CVAAS**

Mercury	ND	0.002	mg/L	1.0	1F03042	JTR	06/02/2021 10:00	06/04/2021 15:03	EPA 245.1 Rev 3.0	
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The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR Semi Annual  
 Project Number: Annual  
 Project Manager: Jim Ward

 Reported:  
 01/18/2022 07:58

**OW-2**
**2105488-08 (Water)**

Analyte	Result	MRL	Units	Dil	Batch	Analyst	Date Time Prepared	Date Time Analyzed	Method	Notes
<b>Classical Chemistry Parameters</b>										
Fluoride	0.23	0.22	mg/L	1.0	1F02071	CDV	06/02/2021 11:50	06/02/2021 15:28	SM 4500-F C 2011	
<b>Metals by EPA 200 Series Methods ICP-AES</b>										
Barium 455.403 [Radial]	0.058	0.010	mg/L	1.0	1F01032	CLV	06/01/2021 09:25	06/10/2021 13:16	EPA 200.7 Rev 4.4	
Boron 249.773 [Radial]	ND	0.050	"	"	"	CLV	"	"	"	
Calcium 315.887 [Radial]	33.5	0.050	"	"	"	CLV	"	"	"	
Lithium 610.362 [Axial]	ND	0.040	"	"	"	CLV	"	"	"	
<b>Metals by EPA 200 Series Methods ICP-MS [Analysis Mode]</b>										
Antimony [He]	ND	0.00200	mg/L	1.0	1F01031	SCH	"	06/07/2021 13:18	EPA 200.8 Rev 5.4	
Arsenic [He]	ND	0.00200	"	"	"	SCH	"	"	"	
Barium [He]	0.0575	0.00100	"	"	"	SCH	"	"	"	
Beryllium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Cadmium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Chromium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Cobalt [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Lead [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Molybdenum [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Selenium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Thallium [He]	ND	0.00500	"	"	"	SCH	"	"	"	
<b>Mercury by EPA 200 Series Methods CVAAS</b>										
Mercury	ND	0.002	mg/L	1.0	1F03042	JTR	06/02/2021 10:00	06/04/2021 15:03	EPA 245.1 Rev 3.0	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR Semi Annual  
 Project Number: Annual  
 Project Manager: Jim Ward

 Reported:  
 01/18/2022 07:58

**CCR-2**
**2105488-09 (Water)**

Analyte	Result	MRL	Units	Dil	Batch	Analyst	Date Time Prepared	Date Time Analyzed	Method	Notes
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**Classical Chemistry Parameters**

Fluoride	ND	0.22	mg/L	1.0	1F02071	CDV	06/02/2021 11:50	06/02/2021 15:28	SM 4500-F C 2011	
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**Metals by EPA 200 Series Methods ICP-AES**

<b>Barium 455.403 [Radial]</b>	<b>0.111</b>	0.010	mg/L	1.0	1F01032	CLV	06/01/2021 09:25	06/10/2021 13:38	EPA 200.7 Rev 4.4	
Boron 249.773 [Radial]	ND	0.050	"	"	"	CLV	"	"	"	
<b>Calcium 315.887 [Radial]</b>	<b>14.0</b>	0.050	"	"	"	CLV	"	"	"	
Lithium 610.362 [Axial]	ND	0.040	"	"	"	CLV	"	"	"	

**Metals by EPA 200 Series Methods ICP-MS [Analysis Mode]**

Antimony [He]	ND	0.00200	mg/L	1.0	1F01031	SCH	"	06/07/2021 13:25	EPA 200.8 Rev 5.4	
Arsenic [He]	ND	0.00200	"	"	"	SCH	"	"	"	
<b>Barium [He]</b>	<b>0.110</b>	0.00100	"	"	"	SCH	"	"	"	
Beryllium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Cadmium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Chromium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Cobalt [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Lead [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Molybdenum [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Selenium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Thallium [He]	ND	0.00500	"	"	"	SCH	"	"	"	

**Mercury by EPA 200 Series Methods CVAAS**

Mercury	ND	0.002	mg/L	1.0	1F03042	JTR	06/02/2021 10:00	06/04/2021 15:03	EPA 245.1 Rev 3.0	
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Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR Semi Annual  
 Project Number: Annual  
 Project Manager: Jim Ward

 Reported:  
 01/18/2022 07:58

**CCR-3**
**2105488-10 (Water)**

Analyte	Result	MRL	Units	Dil	Batch	Analyst	Date Time Prepared	Date Time Analyzed	Method	Notes
<b>Classical Chemistry Parameters</b>										
Fluoride	0.22	0.22	mg/L	1.0	1F02071	CDV	06/02/2021 11:50	06/02/2021 15:28	SM 4500-F C 2011	
<b>Metals by EPA 200 Series Methods ICP-AES</b>										
Barium 455.403 [Radial]	0.072	0.010	mg/L	1.0	1F01032	CLV	06/01/2021 09:25	06/10/2021 13:41	EPA 200.7 Rev 4.4	
Boron 249.773 [Radial]	ND	0.050	"	"	"	CLV	"	"	"	
Calcium 315.887 [Radial]	37.1	0.050	"	"	"	CLV	"	"	"	
Lithium 610.362 [Axial]	0.107	0.040	"	"	"	CLV	"	"	"	
<b>Metals by EPA 200 Series Methods ICP-MS [Analysis Mode]</b>										
Antimony [He]	ND	0.00200	mg/L	1.0	1F01031	SCH	"	06/07/2021 13:44	EPA 200.8 Rev 5.4	
Arsenic [He]	ND	0.00200	"	"	"	SCH	"	"	"	
Barium [He]	0.0737	0.00100	"	"	"	SCH	"	"	"	
Beryllium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Cadmium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Chromium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Cobalt [He]	0.0163	0.00100	"	"	"	SCH	"	"	"	
Lead [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Molybdenum [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Selenium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Thallium [He]	ND	0.00500	"	"	"	SCH	"	"	"	
<b>Mercury by EPA 200 Series Methods CVAAS</b>										
Mercury	ND	0.002	mg/L	1.0	1F03042	JTR	06/02/2021 10:00	06/04/2021 15:03	EPA 245.1 Rev 3.0	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR Semi Annual  
 Project Number: Annual  
 Project Manager: Jim Ward

 Reported:  
 01/18/2022 07:58

**CCR-4**
**2105488-11 (Water)**

Analyte	Result	MRL	Units	Dil	Batch	Analyst	Date Time Prepared	Date Time Analyzed	Method	Notes
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**Classical Chemistry Parameters**

Fluoride	ND	0.22	mg/L	1.0	1F02071	CDV	06/02/2021 11:50	06/02/2021 15:28	SM 4500-F C 2011	
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**Metals by EPA 200 Series Methods ICP-AES**

<b>Barium 455.403 [Radial]</b>	<b>0.156</b>	0.010	mg/L	1.0	1F01032	CLV	06/01/2021 09:25	06/10/2021 13:45	EPA 200.7 Rev 4.4	
Boron 249.773 [Radial]	ND	0.050	"	"	"	CLV	"	"	"	
<b>Calcium 315.887 [Radial]</b>	<b>24.5</b>	0.050	"	"	"	CLV	"	"	"	
Lithium 610.362 [Axial]	ND	0.040	"	"	"	CLV	"	"	"	

**Metals by EPA 200 Series Methods ICP-MS [Analysis Mode]**

Antimony [He]	ND	0.00200	mg/L	1.0	1F01031	SCH	"	06/07/2021 13:51	EPA 200.8 Rev 5.4	
Arsenic [He]	ND	0.00200	"	"	"	SCH	"	"	"	
<b>Barium [He]</b>	<b>0.158</b>	0.00100	"	"	"	SCH	"	"	"	
Beryllium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Cadmium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Chromium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
<b>Cobalt [He]</b>	<b>0.00233</b>	0.00100	"	"	"	SCH	"	"	"	
Lead [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Molybdenum [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Selenium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Thallium [He]	ND	0.00500	"	"	"	SCH	"	"	"	

**Mercury by EPA 200 Series Methods CVAAS**

Mercury	ND	0.002	mg/L	1.0	1F03042	JTR	06/02/2021 10:00	06/04/2021 15:03	EPA 245.1 Rev 3.0	
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Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR Semi Annual  
 Project Number: Annual  
 Project Manager: Jim Ward

 Reported:  
 01/18/2022 07:58

**CCR-5**
**2105488-12 (Water)**

Analyte	Result	MRL	Units	Dil	Batch	Analyst	Date Time Prepared	Date Time Analyzed	Method	Notes
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**Classical Chemistry Parameters**

Fluoride	ND	0.22	mg/L	1.0	1F02071	CDV	06/02/2021 11:50	06/02/2021 15:28	SM 4500-F C 2011	
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**Metals by EPA 200 Series Methods ICP-AES**

Barium 455.403 [Radial]	0.036	0.010	mg/L	1.0	1F01032	CLV	06/01/2021 09:25	06/10/2021 13:49	EPA 200.7 Rev 4.4	
Boron 249.773 [Radial]	0.091	0.050	"	"	"	CLV	"	"	"	
Calcium 315.887 [Radial]	112	0.250	"	5.0	"	CLV	"	06/11/2021 16:09	"	
Lithium 610.362 [Axial]	ND	0.040	"	1.0	"	CLV	"	06/10/2021 13:49	"	

**Metals by EPA 200 Series Methods ICP-MS [Analysis Mode]**

Antimony [He]	ND	0.00200	mg/L	1.0	1F01031	SCH	"	06/07/2021 13:58	EPA 200.8 Rev 5.4	
Arsenic [He]	0.00284	0.00200	"	"	"	SCH	"	"	"	
Barium [He]	0.0358	0.00100	"	"	"	SCH	"	"	"	
Beryllium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Cadmium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Chromium [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Cobalt [He]	0.0117	0.00100	"	"	"	SCH	"	"	"	
Lead [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Molybdenum [He]	ND	0.00100	"	"	"	SCH	"	"	"	
Selenium [He]	0.00806	0.00100	"	"	"	SCH	"	"	"	
Thallium [He]	ND	0.00500	"	"	"	SCH	"	"	"	

**Mercury by EPA 200 Series Methods CVAAS**

Mercury	ND	0.002	mg/L	1.0	1F03042	JTR	06/02/2021 10:00	06/04/2021 15:03	EPA 245.1 Rev 3.0	
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Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR Semi Annual  
 Project Number: Annual  
 Project Manager: Jim Ward

 Reported:  
 01/18/2022 07:58

### Classical Chemistry Parameters - Quality Control

Analyte	Analyzed	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifiers
Batch 1F02071 - Default Prep GenChem											
Blank (1F02071-BLK1)											
Fluoride	6/2/21 15:28	ND	0.22	mg/L							
LCS (1F02071-BS1)											
Fluoride	6/2/21 15:28	1.95	0.22	mg/L	2.00		97.5	83.3-107			
LCS Dup (1F02071-BSD1)											
Fluoride	6/2/21 15:28	1.99	0.22	mg/L	2.00		99.5	83.3-107	2.03	30	
Duplicate (1F02071-DUP1) Source: 2105488-05											
Fluoride	6/2/21 15:28	ND	0.22	mg/L		ND				20	
Matrix Spike (1F02071-MS1) Source: 2105488-05											
Fluoride	6/2/21 15:28	5.08	0.22	mg/L	5.00	ND	102	79.3-113			
Matrix Spike Dup (1F02071-MSD1) Source: 2105488-05											
Fluoride	6/2/21 15:28	5.14	0.22	mg/L	5.00	ND	103	79.3-113	1.17	30	

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Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR Semi Annual  
 Project Number: Annual  
 Project Manager: Jim Ward

 Reported:  
 01/18/2022 07:58

**Metals by EPA 200 Series Methods ICP-AES - Quality Control**

Analyte	Analyzed	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifiers
Batch 1F01032 - EPA 200.2 DCN 1017 Rev 10											
Blank (1F01032-BLK1)											
Barium 455.403 [Radial]	6/10/21 12:25	ND	0.010	mg/L							
Boron 249.773 [Radial]	6/10/21 12:25	ND	0.050	"							
Calcium 315.887 [Radial]	6/10/21 12:25	ND	0.050	"							
Lithium 610.362 [Axial]	6/10/21 12:25	ND	0.040	"							
LCS (1F01032-BS1)											
Barium 455.403 [Radial]	6/10/21 12:28	0.211	0.010	mg/L	0.200		105	85-115			
Boron 249.773 [Radial]	6/10/21 12:28	0.209	0.050	"	0.200		104	85-115			
Calcium 315.887 [Radial]	6/10/21 12:28	0.399	0.050	"	0.400		99.8	85-115			
Lithium 610.362 [Axial]	6/10/21 12:28	0.196	0.040	"	0.200		98.2	85-115			
LCS Dup (1F01032-BSD1)											
Barium 455.403 [Radial]	6/10/21 12:32	0.203	0.010	mg/L	0.200		101	85-115	3.87	20	
Boron 249.773 [Radial]	6/10/21 12:32	0.205	0.050	"	0.200		103	85-115	1.45	20	
Calcium 315.887 [Radial]	6/10/21 12:32	0.391	0.050	"	0.400		97.8	85-115	2.09	20	
Lithium 610.362 [Axial]	6/10/21 12:32	0.194	0.040	"	0.200		96.9	85-115	1.30	20	
Duplicate (1F01032-DUP1) Source: 2105488-01											
Calcium 315.887 [Radial]	6/10/21 12:39	32.9	0.050	mg/L		32.0			2.59	20	
Matrix Spike (1F01032-MS1) Source: 2105488-05											
Barium 455.403 [Radial]	6/10/21 13:01	0.213	0.010	mg/L	0.200	0.013	100	70-130			
Boron 249.773 [Radial]	6/10/21 13:01	0.207	0.050	"	0.200	ND	103	70-130			
Calcium 315.887 [Radial]	6/10/21 13:01	1.02	0.050	"	0.400	0.643	95.4	70-130			
Lithium 610.362 [Axial]	6/10/21 13:01	0.203	0.040	"	0.200	ND	102	70-130			
Matrix Spike (1F01032-MS2) Source: 2105488-01											
Barium 455.403 [Radial]	6/10/21 12:39	0.276	0.010	mg/L	0.200	0.073	102	70-130			
Boron 249.773 [Radial]	6/10/21 12:39	0.217	0.050	"	0.200	0.009	104	70-130			
Lithium 610.362 [Axial]	6/10/21 12:39	0.225	0.040	"	0.200	0.021	102	70-130			

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Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR Semi Annual  
 Project Number: Annual  
 Project Manager: Jim Ward

 Reported:  
 01/18/2022 07:58

### Metals by EPA 200 Series Methods ICP-AES - Quality Control

Analyte	Analyzed	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifiers
Batch 1F01032 - EPA 200.2 DCN 1017 Rev 10											
Matrix Spike Dup (1F01032-MSD1)			Source: 2105488-05								
Barium 455.403 [Radial]	6/10/21 13:05	0.217	0.010	mg/L	0.200	0.013	102	70-130	1.91	20	
Boron 249.773 [Radial]	6/10/21 13:05	0.208	0.050	"	0.200	ND	104	70-130	0.783	20	
Calcium 315.887 [Radial]	6/10/21 13:05	1.04	0.050	"	0.400	0.643	99.2	70-130	1.48	20	
Lithium 610.362 [Axial]	6/10/21 13:05	0.206	0.040	"	0.200	ND	103	70-130	1.13	20	
Matrix Spike Dup (1F01032-MSD2)			Source: 2105488-01								
Barium 455.403 [Radial]	6/10/21 12:43	0.276	0.010	mg/L	0.200	0.073	102	70-130	0.000833	20	
Boron 249.773 [Radial]	6/10/21 12:43	0.217	0.050	"	0.200	0.009	104	70-130	0.0760	20	
Lithium 610.362 [Axial]	6/10/21 12:43	0.224	0.040	"	0.200	0.021	101	70-130	0.382	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Choctaw Generation LP  
2391 Pensacola Rd.  
Ackerman MS, 39735

Project: CGLP CCR Semi Annual  
Project Number: Annual  
Project Manager: Jim Ward

Reported:  
01/18/2022 07:58

### ***Metals by EPA 200 Series Methods ICP-MS [Analysis Mode] - Quality Control***

Analyte	Analyzed	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifiers
Batch 1F01031 - EPA 200.2 DCN 1017 Rev 10											
Blank (1F01031-BLK1)											
Antimony [He]	6/7/21 11:38	ND	0.00200	mg/L							
Arsenic [He]	6/7/21 11:38	ND	0.00200	"							
Beryllium [He]	6/7/21 11:38	ND	0.00100	"							
Cadmium [He]	6/7/21 11:38	ND	0.00100	"							
Chromium [He]	6/7/21 11:38	ND	0.00100	"							
Cobalt [He]	6/7/21 11:38	ND	0.00100	"							
Lead [He]	6/7/21 11:38	ND	0.00100	"							
Molybdenum [He]	6/7/21 11:38	ND	0.00100	"							
Selenium [He]	6/7/21 11:38	ND	0.00100	"							
LCS (1F01031-BS1)											
Antimony [He]	6/7/21 11:45	0.099	0.00200	mg/L	0.100		99.5	85-115			
Arsenic [He]	6/7/21 11:45	0.098	0.00200	"	0.100		97.6	85-115			
Beryllium [He]	6/7/21 11:45	0.103	0.00100	"	0.100		103	85-115			
Cadmium [He]	6/7/21 11:45	0.097	0.00100	"	0.100		97.4	85-115			
Chromium [He]	6/7/21 11:45	0.096	0.00100	"	0.100		96.2	85-115			
Cobalt [He]	6/7/21 11:45	0.101	0.00100	"	0.100		101	85-115			
Lead [He]	6/7/21 11:45	0.095	0.00100	"	0.100		95.1	85-115			
Molybdenum [He]	6/7/21 11:45	0.091	0.00100	"	0.100		90.7	85-115			
Selenium [He]	6/7/21 11:45	0.097	0.00100	"	0.100		97.5	85-115			
LCS Dup (1F01031-BSD1)											
Antimony [He]	6/7/21 11:51	0.100	0.00200	mg/L	0.100		100	85-115	0.543	20	
Arsenic [He]	6/7/21 11:51	0.099	0.00200	"	0.100		98.7	85-115	1.13	20	
Beryllium [He]	6/7/21 11:51	0.105	0.00100	"	0.100		105	85-115	1.55	20	
Cadmium [He]	6/7/21 11:51	0.098	0.00100	"	0.100		97.9	85-115	0.576	20	
Chromium [He]	6/7/21 11:51	0.097	0.00100	"	0.100		96.8	85-115	0.527	20	
Cobalt [He]	6/7/21 11:51	0.101	0.00100	"	0.100		101	85-115	0.637	20	
Lead [He]	6/7/21 11:51	0.098	0.00100	"	0.100		97.8	85-115	2.81	20	
Molybdenum [He]	6/7/21 11:51	0.092	0.00100	"	0.100		92.2	85-115	1.65	20	
Selenium [He]	6/7/21 11:51	0.095	0.00100	"	0.100		94.8	85-115	2.76	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR Semi Annual  
 Project Number: Annual  
 Project Manager: Jim Ward

 Reported:  
 01/18/2022 07:58

**Metals by EPA 200 Series Methods ICP-MS [Analysis Mode] - Quality Control**

Analyte	Analyzed	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifiers
Batch 1F01031 - EPA 200.2 DCN 1017 Rev 10											
<b>Matrix Spike (1F01031-MS1)</b>			<b>Source: 2105488-01</b>								
Antimony [He]	6/7/21 12:11	0.101	0.00200	mg/L	0.100	ND	101	70-130			
Arsenic [He]	6/7/21 12:11	0.100	0.00200	"	0.100	0.0002	99.5	70-130			
Beryllium [He]	6/7/21 12:11	0.101	0.00100	"	0.100	ND	101	70-130			
Cadmium [He]	6/7/21 12:11	0.095	0.00100	"	0.100	ND	95.4	70-130			
Chromium [He]	6/7/21 12:11	0.094	0.00100	"	0.100	ND	94.2	70-130			
Cobalt [He]	6/7/21 12:11	0.096	0.00100	"	0.100	0.0005	95.9	70-130			
Lead [He]	6/7/21 12:11	0.098	0.00100	"	0.100	ND	98.4	70-130			
Molybdenum [He]	6/7/21 12:11	0.098	0.00100	"	0.100	0.0002	97.4	70-130			
Selenium [He]	6/7/21 12:11	0.097	0.00100	"	0.100	ND	96.8	70-130			
<b>Matrix Spike (1F01031-MS2)</b>			<b>Source: 2105488-05</b>								
Antimony [He]	6/7/21 12:52	0.103	0.00200	mg/L	0.100	ND	103	70-130			
Arsenic [He]	6/7/21 12:52	0.100	0.00200	"	0.100	ND	99.9	70-130			
Beryllium [He]	6/7/21 12:52	0.113	0.00100	"	0.100	ND	113	70-130			
Cadmium [He]	6/7/21 12:52	0.099	0.00100	"	0.100	ND	98.9	70-130			
Chromium [He]	6/7/21 12:52	0.101	0.00100	"	0.100	ND	101	70-130			
Cobalt [He]	6/7/21 12:52	0.106	0.00100	"	0.100	0.0008	105	70-130			
Lead [He]	6/7/21 12:52	0.102	0.00100	"	0.100	ND	102	70-130			
Molybdenum [He]	6/7/21 12:52	0.096	0.00100	"	0.100	ND	96.2	70-130			
Selenium [He]	6/7/21 12:52	0.099	0.00100	"	0.100	ND	99.2	70-130			
<b>Matrix Spike Dup (1F01031-MSD1)</b>			<b>Source: 2105488-01</b>								
Antimony [He]	6/7/21 12:18	0.100	0.00200	mg/L	0.100	ND	99.6	70-130	1.27	20	
Arsenic [He]	6/7/21 12:18	0.099	0.00200	"	0.100	0.0002	98.3	70-130	1.21	20	
Beryllium [He]	6/7/21 12:18	0.103	0.00100	"	0.100	ND	103	70-130	2.06	20	
Cadmium [He]	6/7/21 12:18	0.095	0.00100	"	0.100	ND	94.5	70-130	0.915	20	
Chromium [He]	6/7/21 12:18	0.093	0.00100	"	0.100	ND	93.4	70-130	0.755	20	
Cobalt [He]	6/7/21 12:18	0.096	0.00100	"	0.100	0.0005	95.4	70-130	0.559	20	
Lead [He]	6/7/21 12:18	0.096	0.00100	"	0.100	ND	95.7	70-130	2.72	20	
Molybdenum [He]	6/7/21 12:18	0.096	0.00100	"	0.100	0.0002	96.2	70-130	1.30	20	
Selenium [He]	6/7/21 12:18	0.099	0.00100	"	0.100	ND	99.2	70-130	2.44	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR Semi Annual  
 Project Number: Annual  
 Project Manager: Jim Ward

 Reported:  
 01/18/2022 07:58

**Metals by EPA 200 Series Methods ICP-MS [Analysis Mode] - Quality Control**

Analyte	Analyzed	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifiers
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Batch 1F01031 - EPA 200.2 DCN 1017 Rev 10

Matrix Spike Dup (1F01031-MSD2)

Source: 2105488-05

Antimony [He]	6/7/21 12:58	0.100	0.00200	mg/L	0.100	ND	100	70-130	2.85	20	
Arsenic [He]	6/7/21 12:58	0.097	0.00200	"	0.100	ND	97.2	70-130	2.80	20	
Beryllium [He]	6/7/21 12:58	0.108	0.00100	"	0.100	ND	108	70-130	4.70	20	
Cadmium [He]	6/7/21 12:58	0.097	0.00100	"	0.100	ND	96.7	70-130	2.32	20	
Chromium [He]	6/7/21 12:58	0.095	0.00100	"	0.100	ND	95.4	70-130	5.79	20	
Cobalt [He]	6/7/21 12:58	0.101	0.00100	"	0.100	0.0008	100	70-130	5.09	20	
Lead [He]	6/7/21 12:58	0.098	0.00100	"	0.100	ND	98.5	70-130	3.05	20	
Molybdenum [He]	6/7/21 12:58	0.095	0.00100	"	0.100	ND	94.6	70-130	1.68	20	
Selenium [He]	6/7/21 12:58	0.092	0.00100	"	0.100	ND	92.2	70-130	7.31	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Choctaw Generation LP  
2391 Pensacola Rd.  
Ackerman MS, 39735

Project: CGLP CCR Semi Annual  
Project Number: Annual  
Project Manager: Jim Ward

**Reported:**  
01/18/2022 07:58

### Mercury by EPA 200 Series Methods CVAAS - Quality Control

Analyte	Analyzed	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifiers
Batch 1F03042 - EPA 7470A DCN 1017 Rev 10											
Blank (1F03042-BLK1)											
Mercury	6/4/21 15:03	ND	0.002	mg/L							
LCS (1F03042-BS1)											
Mercury	6/4/21 15:03	0.005	0.002	mg/L	0.00500		102	85-115			
LCS Dup (1F03042-BSD1)											
Mercury	6/4/21 15:03	0.005	0.002	mg/L	0.00500		100	85-115	1.98	20	
Matrix Spike (1F03042-MS1) Source: 2105488-05											
Mercury	6/4/21 15:03	0.005	0.002	mg/L	0.00500	0.0005	90.0	70-130			
Matrix Spike (1F03042-MS2) Source: 2105488-01											
Mercury	6/4/21 15:03	0.005	0.002	mg/L	0.00500	ND	108	70-130			

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Choctaw Generation LP  
2391 Pensacola Rd.  
Ackerman MS, 39735

Project: CGLP CCR Semi Annual  
Project Number: Annual  
Project Manager: Jim Ward

**Reported:**  
01/18/2022 07:58

**Certified Analyses Included in this Report**

Analyte	Certification Code
<b>EPA 200.7 Rev 4.4 in Water</b>	
Aluminum 237.312 [Radial]	C01,C02
Aluminum 394.401 [Radial]	C01,C02
Aluminum 396.152 [Radial]	C01,C02
Antimony 206.833 [Axial]	C01,C02
Arsenic 193.759 [Axial]	C01,C02
Barium 455.403 [Radial]	C01,C02
Barium 493.409 [Radial]	C01,C02
Beryllium 313.042 [Axial]	C01,C02
Boron 249.773 [Radial]	C01,C02
Cadmium 228.802 [Axial]	C01,C02
Calcium 315.887 [Radial]	C01,C02
Chromium 283.563 [Axial]	C01,C02
Cobalt 228.616 [Axial]	C01,C02
Copper 324.754 [Axial]	C01,C02
Iron 259.940 [Axial]	C01,C02
Iron 259.940 [Radial]	C01,C02
Lead 220.353 [Axial]	C01,C02
Lithium 610.362 [Axial]	C01,C02
Magnesium 285.213 [Radial]	C01,C02
Manganese 257.610 [Axial]	C01,C02
Molybdenum 202.030 [Axial]	C01,C02
Nickel 231.604 [Axial]	C01,C02
Potassium 766.490 [Radial]	C01,C02
Phosphorus 178.284 [Axial]	C01,C02
Phosphorus 178.284 [Radial]	C01,C02
Selenium 196.090 [Axial]	C01,C02
Silver 328.068 [Axial]	C01,C02
Sodium 589.592 [Axial]	C01,C02
Sodium 589.592 [Radial]	C01,C02
Strontium 346.446 [Radial]	C01,C02
Strontium 421.552 [Radial]	C01,C02
Thallium 190.856 [Axial]	C01,C02
Tin 189.989 [Axial]	C01,C02
Titanium 334.941 [Axial]	C01,C02
Vanadium 309.311 [Axial]	C01,C02
Zinc 213.856 [Axial]	C01,C02
<b>EPA 200.8 Rev 5.4 in Water</b>	
Aluminum [He]	C01,C02
Antimony [He]	C01,C02

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Choctaw Generation LP  
2391 Pensacola Rd.  
Ackerman MS, 39735

Project: CGLP CCR Semi Annual  
Project Number: Annual  
Project Manager: Jim Ward

**Reported:**  
01/18/2022 07:58

Antimony [HHe]	C01,C02
Antimony [NG]	C01,C02
Arsenic [He]	C01
Arsenic [HHe]	C01,C02
Arsenic [NG]	C01,C02
Barium [He]	C01,C02
Beryllium [He]	C01,C02
Boron [NG]	C01,C02
Cadmium [He]	C01
Cadmium [HHe]	C01,C02
Cadmium [NG]	C01,C02
Chromium [He]	C01,C02
Cobalt [He]	C01,C02
Copper [He]	C01,C02
Copper [NG]	C01,C02
Iron [He]	C01,C02
Lead [He]	C01,C02
Lead [NG]	C01,C02
Manganese [He]	C01,C02
Molybdenum [He]	C01,C02
Nickel [He]	C01,C02
Selenium [He]	C01
Selenium [HHe]	C01,C02
Selenium [NG]	C01,C02
Silver [He]	C01,C02
Silver [NG]	C01,C02
Strontium [He]	C01,C02
Thallium [He]	C01,C02
Vanadium [He]	C01,C02
Zinc [He]	C01,C02

**EPA 245.1 Rev 3.0 in Water**

Mercury	C01,C02
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**\*\*Only compounds included in this list are associated with accredited analyses\*\***

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Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR Semi Annual  
 Project Number: Annual  
 Project Manager: Jim Ward

 Reported:  
 01/18/2022 07:58

### Laboratory Accreditations/Certifications

Code	Description	Number	Expires
C01	LA Environmental Lab Accreditation Program	01960	06/30/2022
C02	The NELAC Institute (NELAP)	TNI01397	06/30/2022
C03	Ms Dept of Health (Drinking Water Microbiology)	MS00021	12/31/2022
C04	Ms Dept of Health (Drinking Water Chemistry)	MS00021	12/31/2022
C05	Ms DEQ Lead Firm Certification	PBF-00000028	03/24/2022
C06	MsDEQ Asbestos Inspector : C.D. Bingham	ABI-00001348	02/12/2022
C07	MsDEQ Air Monitor : C.D. Bingham	AM-011572	02/13/2022
C08	MsDEQ Asbestos Inspector: C. W. Meins	ABI-00001821	09/09/2022
C09	MsDEQ Air Monitor : C.W. Meins	AM-011189	02/13/2022
C14	MsDEQ Lead Paint Inspector : C.D. Bingham	PBI-00003690	03/24/2022
C15	MsDEQ Lead Paint Inspector : C.W. Meins	PBI-00001740	03/24/2022

### Report Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the minimum reporting limit
NR	Not Reported
RPD	Relative Percent Difference
ICV	Initial Calibration Verification
CCV	Continuing Calibration Verification Standard
SSV	Secondary Source Verification Standard
LCS	Lab Control Spike - Lab matrix prepared with known concentration of analyte/s of interest analyzed by method.
MS	Matrix Spike - Sample prepared with known concentration of analyte/s of interest analyzed by method.
MSD	Matrix Spike Duplicate - Duplicate sample prepared with known concentration of analyte/s of interest analyzed by method.
MRL	Minimum Reporting Limit
%REC	Percentage Recovery of known concentration added to matrix
Batch	Group of samples prepared for analysis not to exceed 20 samples.
Matrix	Material containing analyte/s of interest
Surrogate	Analyte added to sample to determine extraction efficiency of method.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Choctaw Generation LP  
2391 Pensacola Rd.  
Ackerman MS, 39735Project: CGLP CCR Semi Annual  
Project Number: Annual  
Project Manager: Jim WardReported:  
01/18/2022 07:58**Analyst Initials Key**

<u>FullName</u>	<u>Initials</u>
Cristina D Vargas	CDV
Charles D. Bingham	CDB
Charles L Vorhoff	CLV
Howard Mitch Spicer	HMS
Jose T. Rivera	JTR
Sarah E. Tomek	SET
Samantha C. Hall	SCH
Teresa Meins	TKM
Tina Tomek	TPT

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

PO Box 1410, Ocean Springs, MS 39566-1410  
(228) 875-6420 FAX (228) 875-6423  
www.micromethodslab.com

**Chain of Custody Record**

Lab ID# MS00021  
LELAP ID # 01960  
TNI ID # TNI01397

pg 10f2

Print Form

M-M Lab  
WO #

2105488

Company Name: Choctaw Generation Limited Partnership LLP

Project Manager:

Jim Ward

Address: 2391 Pensacola Rd.

Purchase Order #:

City: Ackerman State: MS Zip: 39735

Email Address:

Clark@envirocomp.net

Phone: 662-387-5758

Sampler Name Printed:

Can Clark

Fax:

Sampler Name Signed:

Can Clark

Project Name: CGLP CCR

Annual

**List Analyses Requested**

Sample Identification	Sampling Date/Time	Matrix Code	# of Containers	Preservative					
				Grab (G) or Composite (C)	Fluoride	Antimony, Arsenic, Barium, Beryllium	Cadmium, Cobalt	Chromium, Lead	Lithium, Mercury
MM-7	5/26/21 12:00	W	4	G	X	X	X	X	X
MM-9	5/26/21 10:48	W	4	G	X	X	X	X	X
MM-12	5/26/21 10:05	W	4	G	X	X	X	X	X
MM-13	5/26/21 12:55	W	4	G	X	X	X	X	X
MM-14	5/26/21 10:55	W	4	G	X	X	X	X	X
Field Blank	5/26/21 12:35	W	4	G	X	X	X	X	X
Duplicate	5/26/21	W	4	G	X	X	X	X	X
OW-2	5/26/21 9:25	W	4	G	X	X	X	X	X
CCR-2	5/26/21 12:05	W	4	G	X	X	X	X	X
CCR-3	5/26/21 11:23	W	4	G	X	X	X	X	X
CCR-4	5/26/21 8:26	W	4	G	X	X	X	X	X

Received on Ice: Y N Thermometer# 58 Cooler # Receipt Temp Corrected (°C)

Date & Time By: Sample Blank X Cooler

Printed Name Signature Company Date Time

Relinquished by Cam Clark CCCS 5/26/21 15:30

Relinquished by FedEx

Relinquished by FedEx

Relinquished by FedEx

Relinquished by FedEx

Relinquished by FedEx

Relinquished by FedEx

DCN# F316 Rev#5

Physical Address: 6500 Sunplex Drive, Ocean Springs MS 39564

Notes:  
B.S. Hailly & Kirk Shelton  
Assisted with Sampling Event.  
Cooler # 409 3.2°C  
Cooler # 680 0.4°C  
Cooler # 1130 5.5°C

Turn Around Time & Reporting  
Our normal turn around time is 10 working days  
Normal \*All rush order requests must be prior approved.  
Next Day\*  
2nd Day\*  
Other\*  
Phone  
Mail  
Fax  
Email

QC Level: Level 1 Level 2 Level 3

Matrix:

W = Water  
DW = Drinking Water  
S = Solid  
SO = Soil  
SE = Sediment  
L = Liquid  
A = Air  
O = Oil  
SL = Sludge

Preservation:

1 = H2SO4  
2 = H3PO4  
3 = NaOH  
4 = ZnCAH10O6  
5 = ZnCAH10O6 & NaOH  
6 = HNO3  
7 = Na2S2O3  
8 = HCl  
9 = NaHSO4





PO Box 1410, Ocean Springs, MS 39566-1410  
(228) 875-6420 FAX (228) 875-6423  
www.micromethodslab.com

### Chain of Custody Record

Lab ID# MS00021  
LELAP ID # 01960  
TNI ID # TNI01397

pg 2 of 2

M-M Lab  
WFO #

2105488

Print Form

Company Name: Choctaw Generation Limited Partnership LLP

Project Manager:

Jim Ward

Address: 2391 Pensacola Rd.

Purchase Order #:

City: Ackerman State: MS Zip: 39735

Email Address:

Phone: 662-387-5758

Sampler Name Printed:

Fax:

Sampler Name Signed:

CGLP CCR

List Analyses Requested

Project #:

Annual

Sample Identification

Sampling Date/Time

Matrix Code

# of Containers

Grab (G) or Composite (C)

Fluoride

Antimony, Arsenic, Barium, Beryllium

Cadmium, Cobalt

Chromium, Lead

Lithium, Mercury

Molybdenum, Selenium

Thallium

Total Radium 226 & 228

CCR-5

5/26/11

08:45

W

4

G

X

X

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X

X

X

X

X

X

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Received on Ice? Y N Thermometer #

By:

Sample

Blank

Cooler

Receipt Temp Corrected(°C)

Date & Time

Printed Name

Signature

Company

Date

Time

Relinquished by

Relinquished by

Relinquished by

Relinquished by

Relinquished by

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June 29, 2021

Tina Tomek  
Micro Methods Laboratory, Inc.  
P. O. Box 1410  
Ocean Springs, MS 39566

RE: Project: 2105488  
Pace Project No.: 20210296

Dear Tina Tomek:

Enclosed are the analytical results for sample(s) received by the laboratory on June 02, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Greensburg

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

Sincerely,



Karen Brown  
karen.brown@pacelabs.com  
(504)469-0333  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 2105488

Pace Project No.: 20210296

### Pace Analytical Services Pennsylvania

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

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 9526

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 2105488  
Pace Project No.: 20210296

Lab ID	Sample ID	Matrix	Date Collected	Date Received
20210296001	2105488-01	Water	05/26/21 12:00	06/02/21 10:44
20210296002	2105488-02	Water	05/26/21 10:48	06/02/21 10:44
20210296003	2105488-03	Water	05/26/21 10:05	06/02/21 10:44
20210296004	2105488-04	Water	05/26/21 12:55	06/02/21 10:44
20210296005	2105488-05	Water	05/26/21 10:55	06/02/21 10:44
20210296006	2105488-06	Water	05/26/21 12:35	06/02/21 10:44
20210296007	2105488-07	Water	05/26/21 00:00	06/02/21 10:44
20210296008	2105488-08	Water	05/26/21 09:25	06/02/21 10:44
20210296009	2105488-09	Water	05/26/21 12:05	06/02/21 10:44
20210296010	2105488-10	Water	05/26/21 11:23	06/02/21 10:44
20210296011	2105488-11	Water	05/26/21 08:26	06/02/21 10:44
20210296012	2105488-12	Water	05/26/21 08:45	06/02/21 10:44

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE ANALYTE COUNT

Project: 2105488  
Pace Project No.: 20210296

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
20210296001	2105488-01	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	JC2	1	PASI-PA
20210296002	2105488-02	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	JC2	1	PASI-PA
20210296003	2105488-03	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	JC2	1	PASI-PA
20210296004	2105488-04	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	JC2	1	PASI-PA
20210296005	2105488-05	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	JC2	1	PASI-PA
20210296006	2105488-06	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	JC2	1	PASI-PA
20210296007	2105488-07	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	JC2	1	PASI-PA
20210296008	2105488-08	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	JC2	1	PASI-PA
20210296009	2105488-09	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	JC2	1	PASI-PA
20210296010	2105488-10	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	JC2	1	PASI-PA
20210296011	2105488-11	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	JC2	1	PASI-PA
20210296012	2105488-12	EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	JC2	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: 2105488  
Pace Project No.: 20210296

---

**Method:** EPA 903.1  
**Description:** 903.1 Radium 226  
**Client:** Micro Methods  
**Date:** June 29, 2021

**General Information:**

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

**Hold Time:**

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

**Method Blank:**

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

**Laboratory Control Spike:**

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

**Matrix Spikes:**

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

**Additional Comments:**

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: 2105488  
Pace Project No.: 20210296

---

**Method:** EPA 904.0  
**Description:** 904.0 Radium 228  
**Client:** Micro Methods  
**Date:** June 29, 2021

### General Information:

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

### Hold Time:

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

### Method Blank:

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

### Laboratory Control Spike:

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

### Matrix Spikes:

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

### Additional Comments:

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

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2105488  
Pace Project No.: 20210296

<b>Sample: 2105488-01</b>		<b>Lab ID: 20210296001</b>	Collected: 05/26/21 12:00	Received: 06/02/21 10:44	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.228 ± 0.419 (0.747)</b> <b>C:NA T:91%</b>	pCi/L	06/29/21 12:39	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.247 ± 0.551 (1.22)</b> <b>C:65% T:83%</b>	pCi/L	06/28/21 14:52	15262-20-1	
<b>Sample: 2105488-02</b>		<b>Lab ID: 20210296002</b>	Collected: 05/26/21 10:48	Received: 06/02/21 10:44	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.168 ± 0.396 (0.733)</b> <b>C:NA T:94%</b>	pCi/L	06/29/21 12:39	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>2.31 ± 0.904 (1.45)</b> <b>C:67% T:87%</b>	pCi/L	06/28/21 18:12	15262-20-1	
<b>Sample: 2105488-03</b>		<b>Lab ID: 20210296003</b>	Collected: 05/26/21 10:05	Received: 06/02/21 10:44	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>-0.132 ± 0.409 (0.930)</b> <b>C:NA T:85%</b>	pCi/L	06/29/21 12:39	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.633 ± 0.569 (1.15)</b> <b>C:68% T:80%</b>	pCi/L	06/28/21 17:49	15262-20-1	
<b>Sample: 2105488-04</b>		<b>Lab ID: 20210296004</b>	Collected: 05/26/21 12:55	Received: 06/02/21 10:44	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.386 ± 0.507 (0.844)</b> <b>C:NA T:90%</b>	pCi/L	06/29/21 12:39	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>1.11 ± 0.641 (1.15)</b> <b>C:60% T:91%</b>	pCi/L	06/28/21 17:49	15262-20-1	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2105488

Pace Project No.: 20210296

<b>Sample: 2105488-05</b>		<b>Lab ID: 20210296005</b>	Collected: 05/26/21 10:55	Received: 06/02/21 10:44	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.493 ± 0.386 (0.454)</b> <b>C:NA T:89%</b>	pCi/L	06/29/21 12:39	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.338 ± 0.678 (1.49)</b> <b>C:60% T:81%</b>	pCi/L	06/28/21 17:49	15262-20-1	
<b>Sample: 2105488-06</b>		<b>Lab ID: 20210296006</b>	Collected: 05/26/21 12:35	Received: 06/02/21 10:44	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>-0.0520 ± 0.270 (0.625)</b> <b>C:NA T:96%</b>	pCi/L	06/29/21 12:39	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.158 ± 0.562 (1.27)</b> <b>C:64% T:90%</b>	pCi/L	06/28/21 17:49	15262-20-1	
<b>Sample: 2105488-07</b>		<b>Lab ID: 20210296007</b>	Collected: 05/26/21 00:00	Received: 06/02/21 10:44	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.0606 ± 0.356 (0.728)</b> <b>C:NA T:86%</b>	pCi/L	06/29/21 12:39	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>-0.0364 ± 0.553 (1.30)</b> <b>C:62% T:82%</b>	pCi/L	06/28/21 17:49	15262-20-1	
<b>Sample: 2105488-08</b>		<b>Lab ID: 20210296008</b>	Collected: 05/26/21 09:25	Received: 06/02/21 10:44	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.123 ± 0.451 (0.867)</b> <b>C:NA T:87%</b>	pCi/L	06/29/21 12:39	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.544 ± 0.666 (1.41)</b> <b>C:64% T:80%</b>	pCi/L	06/28/21 17:49	15262-20-1	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2105488  
Pace Project No.: 20210296

<b>Sample: 2105488-09</b>		<b>Lab ID: 20210296009</b>	Collected: 05/26/21 12:05	Received: 06/02/21 10:44	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg							
Radium-226	EPA 903.1	<b>0.0652 ± 0.384 (0.783)</b> <b>C:NA T:88%</b>		pCi/L	06/29/21 12:52	13982-63-3	
Pace Analytical Services - Greensburg							
Radium-228	EPA 904.0	<b>0.226 ± 0.584 (1.30)</b> <b>C:69% T:81%</b>		pCi/L	06/28/21 17:50	15262-20-1	
<b>Sample: 2105488-10</b>		<b>Lab ID: 20210296010</b>	Collected: 05/26/21 11:23	Received: 06/02/21 10:44	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg							
Radium-226	EPA 903.1	<b>0.000 ± 0.330 (0.715)</b> <b>C:NA T:95%</b>		pCi/L	06/29/21 12:52	13982-63-3	
Pace Analytical Services - Greensburg							
Radium-228	EPA 904.0	<b>0.481 ± 0.707 (1.52)</b> <b>C:63% T:80%</b>		pCi/L	06/28/21 17:50	15262-20-1	
<b>Sample: 2105488-11</b>		<b>Lab ID: 20210296011</b>	Collected: 05/26/21 08:26	Received: 06/02/21 10:44	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg							
Radium-226	EPA 903.1	<b>0.181 ± 0.314 (0.561)</b> <b>C:NA T:85%</b>		pCi/L	06/29/21 12:52	13982-63-3	
Pace Analytical Services - Greensburg							
Radium-228	EPA 904.0	<b>0.522 ± 0.659 (1.40)</b> <b>C:64% T:89%</b>		pCi/L	06/28/21 17:50	15262-20-1	
<b>Sample: 2105488-12</b>		<b>Lab ID: 20210296012</b>	Collected: 05/26/21 08:45	Received: 06/02/21 10:44	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg							
Radium-226	EPA 903.1	<b>-0.120 ± 0.499 (1.04)</b> <b>C:NA T:95%</b>		pCi/L	06/29/21 12:52	13982-63-3	
Pace Analytical Services - Greensburg							
Radium-228	EPA 904.0	<b>0.112 ± 0.445 (1.01)</b> <b>C:66% T:90%</b>		pCi/L	06/28/21 17:50	15262-20-1	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL - RADIOCHEMISTRY

Project: 2105488  
Pace Project No.: 20210296

QC Batch:	451872	Analysis Method:	EPA 904.0
QC Batch Method:	EPA 904.0	Analysis Description:	904.0 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg
Associated Lab Samples:	20210296001, 20210296002, 20210296003, 20210296004, 20210296005, 20210296006, 20210296007, 20210296008, 20210296009, 20210296010, 20210296011, 20210296012		

METHOD BLANK:	2180902	Matrix:	Water
Associated Lab Samples:	20210296001, 20210296002, 20210296003, 20210296004, 20210296005, 20210296006, 20210296007, 20210296008, 20210296009, 20210296010, 20210296011, 20210296012		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.734 ± 0.392 (0.694) C:67% T:90%	pCi/L	06/28/21 11:41	

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

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL - RADIOCHEMISTRY

Project: 2105488  
Pace Project No.: 20210296

QC Batch:	451873	Analysis Method:	EPA 903.1
QC Batch Method:	EPA 903.1	Analysis Description:	903.1 Radium-226
		Laboratory:	Pace Analytical Services - Greensburg
Associated Lab Samples:	20210296001, 20210296002, 20210296003, 20210296004, 20210296005, 20210296006, 20210296007, 20210296008, 20210296009, 20210296010, 20210296011, 20210296012		

METHOD BLANK:	2180903	Matrix:	Water
Associated Lab Samples:	20210296001, 20210296002, 20210296003, 20210296004, 20210296005, 20210296006, 20210296007, 20210296008, 20210296009, 20210296010, 20210296011, 20210296012		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0495 ± 0.257 (0.595) C:NA T:88%	pCi/L	06/29/21 12:26	

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

## REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: 2105488  
Pace Project No.: 20210296

---

### DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Act - Activity

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

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The Nelac Institute

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 2105488  
Pace Project No.: 20210296

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
20210296001	2105488-01	EPA 903.1	451873		
20210296002	2105488-02	EPA 903.1	451873		
20210296003	2105488-03	EPA 903.1	451873		
20210296004	2105488-04	EPA 903.1	451873		
20210296005	2105488-05	EPA 903.1	451873		
20210296006	2105488-06	EPA 903.1	451873		
20210296007	2105488-07	EPA 903.1	451873		
20210296008	2105488-08	EPA 903.1	451873		
20210296009	2105488-09	EPA 903.1	451873		
20210296010	2105488-10	EPA 903.1	451873		
20210296011	2105488-11	EPA 903.1	451873		
20210296012	2105488-12	EPA 903.1	451873		
20210296001	2105488-01	EPA 904.0	451872		
20210296002	2105488-02	EPA 904.0	451872		
20210296003	2105488-03	EPA 904.0	451872		
20210296004	2105488-04	EPA 904.0	451872		
20210296005	2105488-05	EPA 904.0	451872		
20210296006	2105488-06	EPA 904.0	451872		
20210296007	2105488-07	EPA 904.0	451872		
20210296008	2105488-08	EPA 904.0	451872		
20210296009	2105488-09	EPA 904.0	451872		
20210296010	2105488-10	EPA 904.0	451872		
20210296011	2105488-11	EPA 904.0	451872		
20210296012	2105488-12	EPA 904.0	451872		

## REPORT OF LABORATORY ANALYSIS

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# MICRO-METHODS

LABORATORY, INC.

## SUBCONTRACT ORDER

### Sending Laboratory:

Micro-Methods Laboratory, Inc.  
6500 Sunplex Drive  
Ocean Springs, MS 39564  
Phone: 228.875.6420  
Fax: 228.875.6423

Project Manager: Teresa Meins

### Subcontracted Laboratory:

Pace Analytical  
1000 Riverbend Blvd. Suite F  
St. Rose, LA 70087  
Phone: -  
Fax: -

**WO# : 20210296**



**Work Order: 2105488**

Analysis	Due	Expires	Comments
<b>Sample ID: 2105488-01 Water Sampled: 05/26/2021 12:00 Sample Name: MW-7</b>			
Radium, Total 226 & 228 by EPA 903.1 & 9C	06/04/2021	06/23/2021 12:00	
<b>Containers Supplied:</b>			
1000mL Plastic w/HNO3 (A) 1000mL Plastic w/HNO3 (B)			
<b>Sample ID: 2105488-02 Water Sampled: 05/26/2021 10:48 Sample Name: MW-9</b>			
Radium, Total 226 & 228 by EPA 903.1 & 9C	06/04/2021	06/23/2021 10:48	
<b>Containers Supplied:</b>			
1000mL Plastic w/HNO3 (A) 1000mL Plastic w/HNO3 (B)			
<b>Sample ID: 2105488-03 Water Sampled: 05/26/2021 10:05 Sample Name: MW-12</b>			
Radium, Total 226 & 228 by EPA 903.1 & 9C	06/04/2021	06/23/2021 10:05	
<b>Containers Supplied:</b>			
1000mL Plastic w/HNO3 (A) 1000mL Plastic w/HNO3 (B)			
<b>Sample ID: 2105488-04 Water Sampled: 05/26/2021 12:55 Sample Name: MW-13</b>			
Radium, Total 226 & 228 by EPA 903.1 & 9C	06/04/2021	06/23/2021 12:55	
<b>Containers Supplied:</b>			
1000mL Plastic w/HNO3 (A) 1000mL Plastic w/HNO3 (B)			
<b>Sample ID: 2105488-05 Water Sampled: 05/26/2021 10:55 Sample Name: MW-14</b>			
Radium, Total 226 & 228 by EPA 903.1 & 9C	06/04/2021	06/23/2021 10:55	

*Sarah Jorner* 6/01/21 1030  
Released By Date

*UPS* 6/02/21  
Released By Date

Released By Date

Released By Date

Released By Date

*UPS* 6/01/21 1030  
Received By Date

*[Signature]* 6/2/2021 1044  
Received By Date

Received By Date

Received By Date

Received By Date

### Work Order: 2105488 (Continued)

Analysis	Due	Expires	Comments
<i>Containers Supplied:</i> 1000mL Plastic w/HNO3 (A) 1000mL Plastic w/HNO3 (B)			
<b>Sample ID: 2105488-06</b>	<b>Water</b>	<b>Sampled: 05/26/2021 12:35</b>	<b>Sample Name: Field Blank</b>
Radium, Total 226 & 228 by EPA 903.1 & 9C 06/04/2021 06/23/2021 12:35			
<i>Containers Supplied:</i> 1000mL Plastic w/HNO3 (A) 1000mL Plastic w/HNO3 (B)			
<b>Sample ID: 2105488-07</b>	<b>Water</b>	<b>Sampled: 05/26/2021 00:00</b>	<b>Sample Name: Duplicate</b>
Radium, Total 226 & 228 by EPA 903.1 & 9C 06/04/2021 06/23/2021 00:00			
<i>Containers Supplied:</i> 1000mL Plastic w/HNO3 (A) 1000mL Plastic w/HNO3 (B)			
<b>Sample ID: 2105488-08</b>	<b>Water</b>	<b>Sampled: 05/26/2021 09:25</b>	<b>Sample Name: OW-2</b>
Radium, Total 226 & 228 by EPA 903.1 & 9C 06/04/2021 06/23/2021 09:25			
<i>Containers Supplied:</i> 1000mL Plastic w/HNO3 (A) 1000mL Plastic w/HNO3 (B)			
<b>Sample ID: 2105488-09</b>	<b>Water</b>	<b>Sampled: 05/26/2021 12:05</b>	<b>Sample Name: CCR-2</b>
Radium, Total 226 & 228 by EPA 903.1 & 9C 06/04/2021 06/23/2021 12:05			
<i>Containers Supplied:</i> 1000mL Plastic w/HNO3 (A) 1000mL Plastic w/HNO3 (B)			
<b>Sample ID: 2105488-10</b>	<b>Water</b>	<b>Sampled: 05/26/2021 11:23</b>	<b>Sample Name: CCR-3</b>
Radium, Total 226 & 228 by EPA 903.1 & 9C 06/04/2021 06/23/2021 11:23			
<i>Containers Supplied:</i> 1000mL Plastic w/HNO3 (A) 1000mL Plastic w/HNO3 (B)			
<b>Sample ID: 2105488-11</b>	<b>Water</b>	<b>Sampled: 05/26/2021 08:26</b>	<b>Sample Name: CCR-4</b>
Radium, Total 226 & 228 by EPA 903.1 & 9C 06/04/2021 06/23/2021 08:26			
<i>Containers Supplied:</i> 1000mL Plastic w/HNO3 (A) 1000mL Plastic w/HNO3 (B)			
<b>Sample ID: 2105488-12</b>	<b>Water</b>	<b>Sampled: 05/26/2021 08:45</b>	<b>Sample Name: CCR-5</b>

Released By Smah Jomeh Date 6/01/21 1030

Released By WPS Date 6/02/21

Released By \_\_\_\_\_ Date \_\_\_\_\_

Released By \_\_\_\_\_ Date \_\_\_\_\_

Released By \_\_\_\_\_ Date \_\_\_\_\_

Received By WPS Date 6/01/21 1630

Received By [Signature] Date 6/2/2021 1044

Received By \_\_\_\_\_ Date \_\_\_\_\_

Received By \_\_\_\_\_ Date \_\_\_\_\_

Received By \_\_\_\_\_ Date \_\_\_\_\_



# MICRO-METHODS

LABORATORY, INC.

## SUBCONTRACT ORDER (Continued)

Work Order: 2105488 (Continued)

Analysis	Due	Expires	Comments
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Sample ID: 2105488-12 Water Sampled: 05/26/2021 08:45 Sample Name: CCR-5

Radium, Total 226 & 228 by EPA 903.1 & 9C 06/04/2021 06/23/2021 08:45

Containers Supplied:

1000mL Plastic w/HNO3 (A) 1000mL Plastic w/HNO3 (B)

Shah Jomeh 6/01/21 1630  
Released By Date

UPS 6/02/21  
Released By Date

Released By Date

Released By Date

Released By Date

UPS 6/01/21 1630  
Received By Date

2/2/21 1044  
Received By Date

Received By Date

Received By Date

Received By Date



Sample Condition Upon |

1000 Riverbend Blvd., Suite F  
St. Rose, LA 70087

Pro

WO#: 20210296

PM: KHB

Due Date: 06/24/21

CLIENT: 20-MICRO

Courier: ☐ Pace Courier ☐ Hired Courier ☐ Fed X ☒ UPS ☐ DHL ☐ USPS ☐ Customer ☐ Other

Custody Seal on Cooler/Box Present: [see COC]

Custody Seals intact: ☒ Yes ☐ NoThermometer Used: ☐ Therm Fisher IR 7  
☒ Therm Fisher IR 10Type of Ice: Wet Blue None

Samples on ice: [see COC]

Cooler Temperature: [see COC]

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 6/3/2021 LMB

Temp must be measured from Temperature blank when present

Comments:

Temperature Blank Present?"	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	1
Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2
Chain of Custody Complete:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3
Chain of Custody Relinquished:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	5
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8
Filtered vol. Rec. for Diss. tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	9
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10
All containers received within manufacture's precautionary and/or expiration dates.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11
All containers needing chemical preservation have been checked (except VOA, coliform, & O&G).	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12
All containers preservation checked found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	15

Client Notification/ Resolution:

Person Contacted: \_\_\_\_\_

Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_



**Mailing Address:**  
PO Box 1410  
Ocean Springs, MS  
39566-1410

6500 Sunplex Drive  
Ocean Springs, MS 39564  
228.875.6420 Phone  
228.875.6423 Fax

October 08, 2021

Jim Ward

**Work Order # :** 2109187

Choctaw Generation LP  
2391 Pensacola Rd.  
Ackerman, MS 39735  
*RE: CGLP CCR Semi Annual*

**Purchase Order #:**

Enclosed are Micro-Methods Laboratory, Inc. results of analyses performed on samples received 09/09/2021 09:25. If you have any questions concerning this report, please feel free to contact the office.

Sincerely,



Mitch Spicer

Lab Director  
Micro-Methods Laboratory, Inc.



**DISCLAIMER**

*The results only relate to the items or the sample and/or samples received by the laboratory. This report shall not be reproduced except in full, without the approval of the laboratory. All NELAP certified test methods performed meet the requirements of NELAC 2009 Standards. Any variances and/or deviations specific to this analytical report are referenced in the lab report using qualifiers and detailed explanations found in the case narrative.*



6500 Sunplex Drive  
Ocean Springs, MS 39564  
228-875-6420 Phone  
228-875-6423 Fax

Choctaw Generation LP  
2391 Pensacola Rd.  
Ackerman MS, 39735

Project: CGLP CCR Semi Annual  
Project Number: Semi-Annual  
Project Manager: Jim Ward

Reported:  
10/08/2021 08:54

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date/Time Sampled	Sampled by	Date/Time Received
MW-9	2109187-01	Water	09/08/2021 09:40	Cam Clark	09/09/2021 09:25
OW-2	2109187-02	Water	09/08/2021 11:41	Cam Clark	09/09/2021 09:25
MW-13	2109187-03	Water	09/08/2021 09:45	Cam Clark	09/09/2021 09:25
MW-7	2109187-04	Water	09/08/2021 11:00	Cam Clark	09/09/2021 09:25
MW-14	2109187-05	Water	09/08/2021 12:05	Cam Clark	09/09/2021 09:25
Field Blank	2109187-06	Water	09/08/2021 12:35	Cam Clark	09/09/2021 09:25
Duplicate	2109187-07	Water	09/08/2021 00:00	Cam Clark	09/09/2021 09:25
MW-12	2109187-08	Water	09/08/2021 10:38	Cam Clark	09/09/2021 09:25
CCR-2	2109187-09	Water	09/08/2021 12:50	Cam Clark	09/09/2021 09:25
CCR-3	2109187-10	Water	09/08/2021 08:38	Cam Clark	09/09/2021 09:25
CCR-4	2109187-11	Water	09/08/2021 14:00	Cam Clark	09/09/2021 09:25
CCR-5	2109187-12	Water	09/08/2021 08:27	Cam Clark	09/09/2021 09:25

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR Semi Annual  
 Project Number: Semi-Annual  
 Project Manager: Jim Ward

 Reported:  
 10/08/2021 08:54

**Sample Receipt Conditions**

Date/Time Received: 9/9/2021 9:25:00AM

Shipped by: Fed Ex

Received by: Sarah E. Tomek

Submitted by: Cam Clark

Date/Time Logged: 9/9/2021 3:16:00PM

Logged by: Sarah E. Tomek

Cooler ID: #1119

Receipt Temperature: 0.6 °C

<i>Cooler Custody Seals Present</i>	Yes
<i>Containers Intact</i>	Yes
<i>COC/Labels Agree</i>	Yes
<i>Labels Complete</i>	Yes
<i>COC Complete</i>	Yes
<i>Volatile Vial Headspace &gt;6mm</i>	No
<i>Field Sheet/Instructions Included</i>	No
<i>Samples Rejected/Documented in Log</i>	No
<i>Temp Taken From Temp Blank</i>	Yes
<i>Temp Taken From Sample Container</i>	No
<i>Temp Taken From Cooler</i>	No
<i>COC meets acceptance criteria</i>	Yes

<i>Received on Ice but Not Frozen</i>	Yes
<i>No Ice, Short Trip</i>	No
<i>Obvious Contamination</i>	No
<i>Rush to meet HT</i>	No
<i>Received within HT</i>	Yes
<i>Proper Containers for Analysis</i>	Yes
<i>Correct Preservation</i>	Yes
<i>Adequate Sample for Analysis</i>	Yes
<i>Sample Custody Seals Present</i>	Yes
<i>Samples Missing from COC/Cooler</i>	No

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR Semi Annual  
 Project Number: Semi-Annual  
 Project Manager: Jim Ward

 Reported:  
 10/08/2021 08:54

 Cooler ID: #1132

 Receipt Temperature: 1.4 °C

<i>Cooler Custody Seals Present</i>	Yes	<i>Received on Ice but Not Frozen</i>	Yes
<i>Containers Intact</i>	Yes	<i>No Ice, Short Trip</i>	No
<i>COC/Labels Agree</i>	Yes	<i>Obvious Contamination</i>	No
<i>Labels Complete</i>	Yes	<i>Rush to meet HT</i>	No
<i>COC Complete</i>	Yes	<i>Received within HT</i>	Yes
<i>Volatile Vial Headspace &gt;6mm</i>	No	<i>Proper Containers for Analysis</i>	Yes
<i>Field Sheet/Instructions Included</i>	No	<i>Correct Preservation</i>	Yes
<i>Samples Rejected/Documented in Log</i>	No	<i>Adequate Sample for Analysis</i>	Yes
<i>Temp Taken From Temp Blank</i>	Yes	<i>Sample Custody Seals Present</i>	Yes
<i>Temp Taken From Sample Container</i>	No	<i>Samples Missing from COC/Cooler</i>	No
<i>Temp Taken From Cooler</i>	No		
<i>COC meets acceptance criteria</i>	Yes		



Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR Semi Annual  
 Project Number: Semi-Annual  
 Project Manager: Jim Ward

 Reported:  
 10/08/2021 08:54

 Cooler ID: #517

 Receipt Temperature: 0.9 °C

<i>Cooler Custody Seals Present</i>	Yes	<i>Received on Ice but Not Frozen</i>	Yes
<i>Containers Intact</i>	Yes	<i>No Ice, Short Trip</i>	No
<i>COC/Labels Agree</i>	Yes	<i>Obvious Contamination</i>	No
<i>Labels Complete</i>	Yes	<i>Rush to meet HT</i>	No
<i>COC Complete</i>	Yes	<i>Received within HT</i>	Yes
<i>Volatile Vial Headspace &gt;6mm</i>	No	<i>Proper Containers for Analysis</i>	Yes
<i>Field Sheet/Instructions Included</i>	No	<i>Correct Preservation</i>	Yes
<i>Samples Rejected/Documented in Log</i>	No	<i>Adequate Sample for Analysis</i>	Yes
<i>Temp Taken From Temp Blank</i>	Yes	<i>Sample Custody Seals Present</i>	Yes
<i>Temp Taken From Sample Container</i>	No	<i>Samples Missing from COC/Cooler</i>	No
<i>Temp Taken From Cooler</i>	No		
<i>COC meets acceptance criteria</i>	Yes		

Choctaw Generation LP  
2391 Pensacola Rd.  
Ackerman MS, 39735Project: CGLP CCR Semi Annual  
Project Number: Semi-Annual  
Project Manager: Jim Ward**Reported:**  
10/08/2021 08:54**CASE NARRATIVE SUMMARY**

*All reported results are within Micro-Methods Laboratory, Inc. defined laboratory quality control objectives unless detailed in narrative summary or identified as qualifications. NOTE: All results listed on this report are calculated on a wet weight basis (as received by the laboratory) unless otherwise noted in the analysis qualification sections.*

**Summary Comments:**

See attached results from Sub-Contract Laboratory

**Total Metals-EPA 200.7 Rev 4.4****Qualifiers:**

L1 LCS and/or LCSD Recovery Limit exceeded.

**Lithium 610.362 [Axial]**

1113041-BS1, 1113042-BS1

L3 LCS/LCSD Precision Limit exceeded.

**Lithium 610.362 [Axial]**

1113041-BSD1, 1113042-BSD1

**Total Metals-EPA 200.8 Rev 5.4****Qualifiers:**

L1 LCS and/or LCSD Recovery Limit exceeded.

**Antimony [He], Arsenic [NG], Beryllium [He], Cadmium [He], Chromium [He], Cobalt [He], Lead [He], Molybdenum [He]**

1113037-BS1, 1113040-BS1

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR Semi Annual  
 Project Number: Semi-Annual  
 Project Manager: Jim Ward

 Reported:  
 10/08/2021 08:54

**MW-9**
**2109187-01 (Water)**

Analyte	Result	MRL	Units	Dil	Batch	Analyst	Date Time Prepared	Date Time Analyzed	Method	Qualifiers
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**Classical Chemistry Parameters**

<b>Chloride</b>	<b>410</b>	25.0	mg/L	50.0	1114031	DLW	09/13/2021 09:34	09/13/2021 14:41	SM 4110B 2011	
Sulfate as SO <sub>4</sub>	ND	250	"	"	"	DLW	"	"	"	
<b>Fluoride</b>	<b>0.41</b>	0.22	"	1.0	1110020	TKM	09/10/2021 08:35	09/10/2021 11:16	SM 4500-F C 2011	
<b>Total Dissolved Solids</b>	<b>913</b>	1	"	"	1113055	DLW	09/13/2021 13:00	09/14/2021 00:00	SM 2540 C-2011	

**Metals by EPA 200 Series Methods ICP-AES**

<b>Barium 455.403 [Radial]</b>	<b>0.084</b>	0.010	mg/L	1.0	1113041	CLV	09/13/2021 09:40	09/21/2021 16:48	EPA 200.7 Rev 4.4	
Boron 249.773 [Radial]	ND	0.050	"	"	"	CLV	"	"	"	
<b>Calcium 315.887 [Radial]</b>	<b>50.9</b>	0.100	"	2.0	"	CLV	"	09/27/2021 11:17	"	
<b>Lithium 610.362 [Axial]</b>	<b>0.087</b>	0.040	"	1.0	"	CLV	"	09/21/2021 16:48	"	

**Metals by EPA 200 Series Methods ICP-MS [Analysis Mode]**

Antimony [He]	ND	0.00200	mg/L	1.0	1113040	CLV	09/13/2021 09:30	09/16/2021 19:05	EPA 200.8 Rev 5.4	
Arsenic [NG]	ND	0.00200	"	"	"	CLV	"	09/27/2021 16:29	"	
<b>Beryllium [He]</b>	<b>0.00374</b>	0.00100	"	"	"	CLV	"	"	"	
Cadmium [He]	ND	0.00100	"	"	"	CLV	"	09/16/2021 19:05	"	
Chromium [He]	ND	0.00100	"	"	"	CLV	"	"	"	
<b>Cobalt [He]</b>	<b>0.0181</b>	0.00100	"	"	"	CLV	"	09/27/2021 16:29	"	
<b>Lead [He]</b>	<b>0.00123</b>	0.00100	"	"	"	CLV	"	09/16/2021 19:05	"	
Molybdenum [He]	ND	0.00100	"	"	"	CLV	"	"	"	
Selenium [NG]	ND	0.00500	"	"	"	CLV	"	"	"	

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR Semi Annual  
 Project Number: Semi-Annual  
 Project Manager: Jim Ward

 Reported:  
 10/08/2021 08:54

**OW-2**
**2109187-02 (Water)**

Analyte	Result	MRL	Units	Dil	Batch	Analyst	Date Time Prepared	Date Time Analyzed	Method	Qualifiers
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**Classical Chemistry Parameters**

Chloride	62.1	5.00	mg/L	10.0	1114031	DLW	09/13/2021 09:34	09/13/2021 15:13	SM 4110B 2011	
Sulfate as SO <sub>4</sub>	122	50.0	"	"	"	DLW	"	"	"	
Fluoride	0.25	0.22	"	1.0	1110020	TKM	09/10/2021 08:35	09/10/2021 11:16	SM 4500-F C 2011	
Total Dissolved Solids	297	1	"	"	1113055	DLW	09/13/2021 13:00	09/14/2021 00:00	SM 2540 C-2011	

**Metals by EPA 200 Series Methods ICP-AES**

Barium 455.403 [Radial]	0.046	0.010	mg/L	1.0	1113041	CLV	09/13/2021 09:40	09/21/2021 16:59	EPA 200.7 Rev 4.4	
Boron 249.773 [Radial]	ND	0.050	"	"	"	CLV	"	"	"	
Calcium 315.887 [Radial]	29.5	0.050	"	"	"	CLV	"	"	"	
Lithium 610.362 [Axial]	0.046	0.040	"	"	"	CLV	"	"	"	

**Metals by EPA 200 Series Methods ICP-MS [Analysis Mode]**

Antimony [He]	ND	0.00200	mg/L	1.0	1113040	CLV	09/13/2021 09:30	09/16/2021 19:22	EPA 200.8 Rev 5.4	
Arsenic [NG]	ND	0.00200	"	"	"	CLV	"	09/20/2021 15:01	"	
Beryllium [He]	ND	0.00100	"	"	"	CLV	"	"	"	
Cadmium [He]	ND	0.00100	"	"	"	CLV	"	09/16/2021 19:22	"	
Chromium [He]	ND	0.00100	"	"	"	CLV	"	"	"	
Cobalt [He]	ND	0.00100	"	"	"	CLV	"	09/20/2021 15:01	"	
Lead [He]	ND	0.00100	"	"	"	CLV	"	09/16/2021 19:22	"	
Molybdenum [He]	ND	0.00100	"	"	"	CLV	"	09/20/2021 15:01	"	
Selenium [NG]	ND	0.00500	"	"	"	CLV	"	09/16/2021 19:22	"	

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR Semi Annual  
 Project Number: Semi-Annual  
 Project Manager: Jim Ward

 Reported:  
 10/08/2021 08:54

**MW-13**
**2109187-03 (Water)**

Analyte	Result	MRL	Units	Dil	Batch	Analyst	Date Time Prepared	Date Time Analyzed	Method	Qualifiers
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**Classical Chemistry Parameters**

Chloride	3.89	0.500	mg/L	1.0	1114031	DLW	09/13/2021 09:34	09/13/2021 15:45	SM 4110B 2011	
Sulfate as SO <sub>4</sub>	ND	5.00	"	"	"	DLW	"	"	"	
Fluoride	ND	0.22	"	"	1110020	TKM	09/10/2021 08:35	09/10/2021 11:16	SM 4500-F C 2011	
Total Dissolved Solids	138	1	"	"	1113055	DLW	09/13/2021 13:00	09/14/2021 00:00	SM 2540 C-2011	

**Metals by EPA 200 Series Methods ICP-AES**

Barium 455.403 [Radial]	0.159	0.010	mg/L	1.0	1113041	CLV	09/13/2021 09:40	09/21/2021 17:02	EPA 200.7 Rev 4.4	
Boron 249.773 [Radial]	ND	0.050	"	"	"	CLV	"	"	"	
Calcium 315.887 [Radial]	17.5	0.050	"	"	"	CLV	"	"	"	
Lithium 610.362 [Axial]	ND	0.040	"	"	"	CLV	"	"	"	

**Metals by EPA 200 Series Methods ICP-MS [Analysis Mode]**

Antimony [He]	ND	0.00200	mg/L	1.0	1113040	CLV	09/13/2021 09:30	09/16/2021 19:28	EPA 200.8 Rev 5.4	
Arsenic [NG]	ND	0.00200	"	"	"	CLV	"	09/20/2021 15:07	"	
Beryllium [He]	ND	0.00100	"	"	"	CLV	"	"	"	
Cadmium [He]	ND	0.00100	"	"	"	CLV	"	09/16/2021 19:28	"	
Chromium [He]	ND	0.00100	"	"	"	CLV	"	"	"	
Cobalt [He]	ND	0.00100	"	"	"	CLV	"	09/20/2021 15:07	"	
Lead [He]	ND	0.00100	"	"	"	CLV	"	09/16/2021 19:28	"	
Molybdenum [He]	ND	0.00100	"	"	"	CLV	"	"	"	
Selenium [NG]	ND	0.00500	"	"	"	CLV	"	"	"	

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR Semi Annual  
 Project Number: Semi-Annual  
 Project Manager: Jim Ward

 Reported:  
 10/08/2021 08:54

**MW-7**
**2109187-04 (Water)**

Analyte	Result	MRL	Units	Dil	Batch	Analyst	Date Time Prepared	Date Time Analyzed	Method	Qualifiers
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**Classical Chemistry Parameters**

Chloride	3.61	0.500	mg/L	1.0	1114031	DLW	09/13/2021 09:34	09/13/2021 16:16	SM 4110B 2011	
Sulfate as SO <sub>4</sub>	51.1	20.0	"	4.0	"	DLW	"	09/13/2021 16:48	"	
Fluoride	ND	0.22	"	1.0	1110020	TKM	09/10/2021 08:35	09/10/2021 11:16	SM 4500-F C 2011	
Total Dissolved Solids	140	1	"	"	1113055	DLW	09/13/2021 13:00	09/14/2021 00:00	SM 2540 C-2011	

**Metals by EPA 200 Series Methods ICP-AES**

Barium 455.403 [Radial]	0.082	0.010	mg/L	1.0	1113041	CLV	09/13/2021 09:40	09/21/2021 17:06	EPA 200.7 Rev 4.4	
Boron 249.773 [Radial]	ND	0.050	"	"	"	CLV	"	"	"	
Calcium 315.887 [Radial]	34.3	0.050	"	"	"	CLV	"	"	"	
Lithium 610.362 [Axial]	ND	0.040	"	"	"	CLV	"	"	"	

**Metals by EPA 200 Series Methods ICP-MS [Analysis Mode]**

Antimony [He]	ND	0.00200	mg/L	1.0	1113040	CLV	09/13/2021 09:30	09/16/2021 19:34	EPA 200.8 Rev 5.4	
Arsenic [NG]	ND	0.00200	"	"	"	CLV	"	09/20/2021 15:13	"	
Beryllium [He]	ND	0.00100	"	"	"	CLV	"	"	"	
Cadmium [He]	ND	0.00100	"	"	"	CLV	"	09/16/2021 19:34	"	
Chromium [He]	ND	0.00100	"	"	"	CLV	"	"	"	
Cobalt [He]	ND	0.00100	"	"	"	CLV	"	09/20/2021 15:13	"	
Lead [He]	ND	0.00100	"	"	"	CLV	"	09/16/2021 19:34	"	
Molybdenum [He]	ND	0.00100	"	"	"	CLV	"	"	"	
Selenium [NG]	ND	0.00500	"	"	"	CLV	"	"	"	

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR Semi Annual  
 Project Number: Semi-Annual  
 Project Manager: Jim Ward

 Reported:  
 10/08/2021 08:54

**MW-14**
**2109187-05 (Water)**

Analyte	Result	MRL	Units	Dil	Batch	Analyst	Date Time Prepared	Date Time Analyzed	Method	Qualifiers
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**Classical Chemistry Parameters**

Chloride	22.4	0.500	mg/L	1.0	1114031	DLW	09/13/2021 09:34	09/13/2021 17:20	SM 4110B 2011	
Sulfate as SO <sub>4</sub>	7.82	5.00	"	"	"	DLW	"	"	"	
Fluoride	ND	0.22	"	"	1110020	TKM	09/10/2021 08:35	09/10/2021 11:16	SM 4500-F C 2011	
Total Dissolved Solids	78	1	"	"	1113055	DLW	09/13/2021 13:00	09/14/2021 00:00	SM 2540 C-2011	

**Metals by EPA 200 Series Methods ICP-AES**

Barium 455.403 [Radial]	0.011	0.010	mg/L	1.0	1113041	CLV	09/13/2021 09:40	09/21/2021 17:10	EPA 200.7 Rev 4.4	
Boron 249.773 [Radial]	ND	0.050	"	"	"	CLV	"	"	"	
Calcium 315.887 [Radial]	0.504	0.050	"	"	"	CLV	"	"	"	
Lithium 610.362 [Axial]	ND	0.040	"	"	"	CLV	"	"	"	

**Metals by EPA 200 Series Methods ICP-MS [Analysis Mode]**

Antimony [He]	ND	0.00200	mg/L	1.0	1113040	CLV	09/13/2021 09:30	09/16/2021 19:40	EPA 200.8 Rev 5.4	
Arsenic [NG]	ND	0.00200	"	"	"	CLV	"	09/20/2021 15:19	"	
Beryllium [He]	ND	0.00100	"	"	"	CLV	"	"	"	
Cadmium [He]	ND	0.00100	"	"	"	CLV	"	09/16/2021 19:40	"	
Chromium [He]	ND	0.00100	"	"	"	CLV	"	"	"	
Cobalt [He]	ND	0.00100	"	"	"	CLV	"	09/20/2021 15:19	"	
Lead [He]	ND	0.00100	"	"	"	CLV	"	09/16/2021 19:40	"	
Molybdenum [He]	ND	0.00100	"	"	"	CLV	"	"	"	
Selenium [NG]	ND	0.00500	"	"	"	CLV	"	"	"	

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR Semi Annual  
 Project Number: Semi-Annual  
 Project Manager: Jim Ward

 Reported:  
 10/08/2021 08:54

**Field Blank**
**2109187-06 (Water)**

Analyte	Result	MRL	Units	Dil	Batch	Analyst	Date Time Prepared	Date Time Analyzed	Method	Qualifiers
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**Classical Chemistry Parameters**

<b>Chloride</b>	<b>2.49</b>	0.500	mg/L	1.0	1114031	DLW	09/13/2021 09:34	09/13/2021 17:52	SM 4110B 2011	
Sulfate as SO <sub>4</sub>	ND	5.00	"	"	"	DLW	"	"	"	
Fluoride	ND	0.22	"	"	1110020	TKM	09/10/2021 08:35	09/10/2021 11:16	SM 4500-F C 2011	
<b>Total Dissolved Solids</b>	<b>24</b>	1	"	"	1113055	DLW	09/13/2021 13:00	09/14/2021 00:00	SM 2540 C-2011	

**Metals by EPA 200 Series Methods ICP-AES**

Barium 455.403 [Radial]	ND	0.010	mg/L	1.0	1113041	CLV	09/13/2021 09:40	09/21/2021 17:13	EPA 200.7 Rev 4.4	
Boron 249.773 [Radial]	ND	0.050	"	"	"	CLV	"	"	"	
<b>Calcium 315.887 [Radial]</b>	<b>2.91</b>	0.050	"	"	"	CLV	"	"	"	
Lithium 610.362 [Axial]	ND	0.040	"	"	"	CLV	"	"	"	

**Metals by EPA 200 Series Methods ICP-MS [Analysis Mode]**

Antimony [He]	ND	0.00200	mg/L	1.0	1113040	CLV	09/13/2021 09:30	09/16/2021 19:46	EPA 200.8 Rev 5.4	
Arsenic [NG]	ND	0.00200	"	"	"	CLV	"	09/20/2021 15:24	"	
Beryllium [He]	ND	0.00100	"	"	"	CLV	"	"	"	
Cadmium [He]	ND	0.00100	"	"	"	CLV	"	09/16/2021 19:46	"	
Chromium [He]	ND	0.00100	"	"	"	CLV	"	"	"	
Cobalt [He]	ND	0.00100	"	"	"	CLV	"	09/20/2021 15:24	"	
Lead [He]	ND	0.00100	"	"	"	CLV	"	09/16/2021 19:46	"	
Molybdenum [He]	ND	0.00100	"	"	"	CLV	"	"	"	
Selenium [NG]	ND	0.00500	"	"	"	CLV	"	"	"	



Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR Semi Annual  
 Project Number: Semi-Annual  
 Project Manager: Jim Ward

 Reported:  
 10/08/2021 08:54

**Duplicate**
**2109187-07 (Water)**

Analyte	Result	MRL	Units	Dil	Batch	Analyst	Date Time Prepared	Date Time Analyzed	Method	Qualifiers
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**Classical Chemistry Parameters**

Chloride	23.2	0.500	mg/L	1.0	1114031	DLW	09/13/2021 09:34	09/13/2021 19:59	SM 4110B 2011	
Sulfate as SO <sub>4</sub>	7.03	5.00	"	"	"	DLW	"	"	"	
Fluoride	ND	0.22	"	"	1110020	TKM	09/10/2021 08:35	09/10/2021 11:16	SM 4500-F C 2011	
Total Dissolved Solids	75	1	"	"	1113055	DLW	09/13/2021 13:00	09/14/2021 00:00	SM 2540 C-2011	

**Metals by EPA 200 Series Methods ICP-AES**

Barium 455.403 [Radial]	0.011	0.010	mg/L	1.0	1113041	CLV	09/13/2021 09:40	09/21/2021 17:17	EPA 200.7 Rev 4.4	
Boron 249.773 [Radial]	ND	0.050	"	"	"	CLV	"	"	"	
Calcium 315.887 [Radial]	0.533	0.050	"	"	"	CLV	"	"	"	
Lithium 610.362 [Axial]	ND	0.040	"	"	"	CLV	"	"	"	

**Metals by EPA 200 Series Methods ICP-MS [Analysis Mode]**

Antimony [He]	ND	0.00200	mg/L	1.0	1113040	CLV	09/13/2021 09:30	09/16/2021 19:52	EPA 200.8 Rev 5.4	
Arsenic [NG]	ND	0.00200	"	"	"	CLV	"	09/20/2021 15:36	"	
Beryllium [He]	ND	0.00100	"	"	"	CLV	"	"	"	
Cadmium [He]	ND	0.00100	"	"	"	CLV	"	09/16/2021 19:52	"	
Chromium [He]	ND	0.00100	"	"	"	CLV	"	"	"	
Cobalt [He]	ND	0.00100	"	"	"	CLV	"	09/20/2021 15:36	"	
Lead [He]	ND	0.00100	"	"	"	CLV	"	09/16/2021 19:52	"	
Molybdenum [He]	ND	0.00100	"	"	"	CLV	"	"	"	
Selenium [NG]	ND	0.00500	"	"	"	CLV	"	"	"	

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR Semi Annual  
 Project Number: Semi-Annual  
 Project Manager: Jim Ward

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 10/08/2021 08:54

**MW-12**
**2109187-08 (Water)**

Analyte	Result	MRL	Units	Dil	Batch	Analyst	Date Time Prepared	Date Time Analyzed	Method	Qualifiers
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**Classical Chemistry Parameters**

Chloride	10.7	0.500	mg/L	1.0	1114031	DLW	09/13/2021 09:34	09/13/2021 20:31	SM 4110B 2011	
Sulfate as SO <sub>4</sub>	11.1	5.00	"	"	"	DLW	"	"	"	
Fluoride	ND	0.22	"	"	1110020	TKM	09/10/2021 08:35	09/10/2021 11:16	SM 4500-F C 2011	
Total Dissolved Solids	253	1	"	"	1113055	DLW	09/13/2021 13:00	09/14/2021 00:00	SM 2540 C-2011	

**Metals by EPA 200 Series Methods ICP-AES**

Barium 455.403 [Radial]	0.174	0.010	mg/L	1.0	1113041	CLV	09/13/2021 09:40	09/21/2021 17:21	EPA 200.7 Rev 4.4	
Boron 249.773 [Radial]	ND	0.050	"	"	"	CLV	"	"	"	
Calcium 315.887 [Radial]	24.6	0.050	"	"	"	CLV	"	"	"	
Lithium 610.362 [Axial]	ND	0.040	"	"	"	CLV	"	"	"	

**Metals by EPA 200 Series Methods ICP-MS [Analysis Mode]**

Antimony [He]	ND	0.00200	mg/L	1.0	1113040	CLV	09/13/2021 09:30	09/16/2021 19:58	EPA 200.8 Rev 5.4	
Arsenic [NG]	ND	0.00200	"	"	"	CLV	"	09/20/2021 15:42	"	
Beryllium [He]	ND	0.00100	"	"	"	CLV	"	"	"	
Cadmium [He]	ND	0.00100	"	"	"	CLV	"	09/16/2021 19:58	"	
Chromium [He]	ND	0.00100	"	"	"	CLV	"	"	"	
Cobalt [He]	0.00665	0.00100	"	"	"	CLV	"	09/20/2021 15:42	"	
Lead [He]	ND	0.00100	"	"	"	CLV	"	09/16/2021 19:58	"	
Molybdenum [He]	ND	0.00100	"	"	"	CLV	"	"	"	
Selenium [NG]	ND	0.00500	"	"	"	CLV	"	"	"	

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR Semi Annual  
 Project Number: Semi-Annual  
 Project Manager: Jim Ward

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**CCR-2**
**2109187-09 (Water)**

Analyte	Result	MRL	Units	Dil	Batch	Analyst	Date Time Prepared	Date Time Analyzed	Method	Qualifiers
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**Classical Chemistry Parameters**

Chloride	2.72	0.500	mg/L	1.0	1114031	DLW	09/13/2021 09:34	09/13/2021 22:07	SM 4110B 2011	
Sulfate as SO <sub>4</sub>	15.7	5.00	"	"	"	DLW	"	"	"	
Fluoride	ND	0.22	"	"	1110020	TKM	09/10/2021 08:35	09/10/2021 11:16	SM 4500-F C 2011	
Total Dissolved Solids	109	1	"	"	1113055	DLW	09/13/2021 13:00	09/14/2021 00:00	SM 2540 C-2011	

**Metals by EPA 200 Series Methods ICP-AES**

Barium 455.403 [Radial]	0.094	0.010	mg/L	1.0	1113041	CLV	09/13/2021 09:40	09/21/2021 17:24	EPA 200.7 Rev 4.4	
Boron 249.773 [Radial]	ND	0.050	"	"	"	CLV	"	"	"	
Calcium 315.887 [Radial]	11.3	0.050	"	"	"	CLV	"	"	"	
Lithium 610.362 [Axial]	ND	0.040	"	"	"	CLV	"	"	"	

**Metals by EPA 200 Series Methods ICP-MS [Analysis Mode]**

Antimony [He]	ND	0.00200	mg/L	1.0	1113040	CLV	09/13/2021 09:30	09/16/2021 20:04	EPA 200.8 Rev 5.4	
Arsenic [NG]	ND	0.00200	"	"	"	CLV	"	09/20/2021 15:48	"	
Beryllium [He]	ND	0.00100	"	"	"	CLV	"	"	"	
Cadmium [He]	ND	0.00100	"	"	"	CLV	"	09/16/2021 20:04	"	
Chromium [He]	ND	0.00100	"	"	"	CLV	"	"	"	
Cobalt [He]	ND	0.00100	"	"	"	CLV	"	09/20/2021 15:48	"	
Lead [He]	ND	0.00100	"	"	"	CLV	"	09/16/2021 20:04	"	
Molybdenum [He]	ND	0.00100	"	"	"	CLV	"	"	"	
Selenium [NG]	ND	0.00500	"	"	"	CLV	"	"	"	

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR Semi Annual  
 Project Number: Semi-Annual  
 Project Manager: Jim Ward

 Reported:  
 10/08/2021 08:54

**CCR-3**
**2109187-10 (Water)**

Analyte	Result	MRL	Units	Dil	Batch	Analyst	Date Time Prepared	Date Time Analyzed	Method	Qualifiers
<b>Classical Chemistry Parameters</b>										
Chloride	5.00	0.500	mg/L	1.0	1114031	DLW	09/13/2021 09:34	09/13/2021 22:39	SM 4110B 2011	
Sulfate as SO <sub>4</sub>	292	100	"	20.0	"	DLW	"	09/13/2021 23:11	"	
Fluoride	0.24	0.22	"	1.0	1110020	TKM	09/10/2021 08:35	09/10/2021 11:16	SM 4500-F C 2011	
Total Dissolved Solids	436	1	"	"	1113055	DLW	09/13/2021 13:00	09/14/2021 00:00	SM 2540 C-2011	
<b>Metals by EPA 200 Series Methods ICP-AES</b>										
Barium 455.403 [Radial]	0.064	0.010	mg/L	1.0	1113041	CLV	09/13/2021 09:40	09/21/2021 17:28	EPA 200.7 Rev 4.4	
Boron 249.773 [Radial]	ND	0.050	"	"	"	CLV	"	"	"	
Calcium 315.887 [Radial]	30.0	0.050	"	"	"	CLV	"	"	"	
Lithium 610.362 [Axial]	0.104	0.040	"	"	"	CLV	"	"	"	
<b>Metals by EPA 200 Series Methods ICP-MS [Analysis Mode]</b>										
Antimony [He]	ND	0.00200	mg/L	1.0	1113040	CLV	09/13/2021 09:30	09/16/2021 20:21	EPA 200.8 Rev 5.4	
Arsenic [NG]	ND	0.00200	"	"	"	CLV	"	09/23/2021 16:36	"	
Beryllium [He]	ND	0.00100	"	"	"	CLV	"	"	"	
Cadmium [He]	ND	0.00100	"	"	"	CLV	"	09/16/2021 20:21	"	
Chromium [He]	ND	0.00100	"	"	"	CLV	"	"	"	
Cobalt [He]	0.0206	0.00100	"	"	"	CLV	"	09/23/2021 16:36	"	
Lead [He]	ND	0.00100	"	"	"	CLV	"	09/16/2021 20:21	"	
Molybdenum [He]	ND	0.00100	"	"	"	CLV	"	"	"	
Selenium [NG]	ND	0.00500	"	"	"	CLV	"	"	"	

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR Semi Annual  
 Project Number: Semi-Annual  
 Project Manager: Jim Ward

 Reported:  
 10/08/2021 08:54

**CCR-4**
**2109187-11 (Water)**

Analyte	Result	MRL	Units	Dil	Batch	Analyst	Date Time Prepared	Date Time Analyzed	Method	Qualifiers
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**Classical Chemistry Parameters**

Chloride	7.79	0.500	mg/L	1.0	1114031	DLW	09/13/2021 09:34	09/13/2021 23:43	SM 4110B 2011	
Sulfate as SO <sub>4</sub>	33.9	10.0	"	2.0	"	DLW	"	09/14/2021 00:15	"	
Fluoride	ND	0.22	"	1.0	1110020	TKM	09/10/2021 08:35	09/10/2021 11:16	SM 4500-F C 2011	
Total Dissolved Solids	196	1	"	"	1113055	DLW	09/13/2021 13:00	09/14/2021 00:00	SM 2540 C-2011	

**Metals by EPA 200 Series Methods ICP-AES**

Barium 455.403 [Radial]	0.130	0.010	mg/L	1.0	1113042	CLV	09/13/2021 09:40	09/21/2021 16:25	EPA 200.7 Rev 4.4	
Boron 249.773 [Radial]	ND	0.050	"	"	"	CLV	"	"	"	
Calcium 315.887 [Radial]	20.0	0.050	"	"	"	CLV	"	"	"	
Lithium 610.362 [Axial]	ND	0.040	"	"	"	CLV	"	"	"	

**Metals by EPA 200 Series Methods ICP-MS [Analysis Mode]**

Antimony [He]	ND	0.00200	mg/L	1.0	1113037	CLV	09/13/2021 08:50	09/16/2021 20:27	EPA 200.8 Rev 5.4	
Arsenic [NG]	ND	0.00200	"	"	"	CLV	"	09/23/2021 16:42	"	
Beryllium [He]	ND	0.00100	"	"	"	CLV	"	"	"	
Cadmium [He]	ND	0.00100	"	"	"	CLV	"	09/16/2021 20:27	"	
Chromium [He]	ND	0.00100	"	"	"	CLV	"	"	"	
Cobalt [He]	0.00369	0.00100	"	"	"	CLV	"	09/23/2021 16:42	"	
Lead [He]	ND	0.00100	"	"	"	CLV	"	09/16/2021 20:27	"	
Molybdenum [He]	ND	0.00100	"	"	"	CLV	"	"	"	
Selenium [NG]	ND	0.00500	"	"	"	CLV	"	"	"	

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR Semi Annual  
 Project Number: Semi-Annual  
 Project Manager: Jim Ward

 Reported:  
 10/08/2021 08:54

**CCR-5**
**2109187-12 (Water)**

Analyte	Result	MRL	Units	Dil	Batch	Analyst	Date Time Prepared	Date Time Analyzed	Method	Qualifiers
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**Classical Chemistry Parameters**

Chloride	6.54	0.500	mg/L	1.0	1114031	DLW	09/13/2021 09:34	09/14/2021 00:46	SM 4110B 2011	
Sulfate as SO <sub>4</sub>	612	500	"	100.0	"	DLW	"	09/14/2021 01:18	"	
Fluoride	ND	0.22	"	1.0	1110020	TKM	09/10/2021 08:35	09/10/2021 11:16	SM 4500-F C 2011	
Total Dissolved Solids	834	2	"	"	1113055	DLW	09/13/2021 13:00	09/14/2021 00:00	SM 2540 C-2011	

**Metals by EPA 200 Series Methods ICP-AES**

Barium 455.403 [Radial]	0.044	0.010	mg/L	1.0	1113042	CLV	09/13/2021 09:40	09/21/2021 16:29	EPA 200.7 Rev 4.4	
Boron 249.773 [Radial]	0.102	0.050	"	"	"	CLV	"	"	"	
Calcium 315.887 [Radial]	101	0.250	"	5.0	"	CLV	"	09/27/2021 11:29	"	
Lithium 610.362 [Axial]	0.070	0.040	"	1.0	"	CLV	"	09/21/2021 16:29	"	

**Metals by EPA 200 Series Methods ICP-MS [Analysis Mode]**

Antimony [He]	ND	0.00200	mg/L	1.0	1113037	CLV	09/13/2021 08:50	09/16/2021 20:33	EPA 200.8 Rev 5.4	
Arsenic [NG]	ND	0.00200	"	"	"	CLV	"	09/23/2021 16:48	"	
Beryllium [He]	ND	0.00100	"	"	"	CLV	"	"	"	
Cadmium [He]	ND	0.00100	"	"	"	CLV	"	09/16/2021 20:33	"	
Chromium [He]	ND	0.00100	"	"	"	CLV	"	"	"	
Cobalt [He]	0.0105	0.00100	"	"	"	CLV	"	09/23/2021 16:48	"	
Lead [He]	ND	0.00100	"	"	"	CLV	"	09/16/2021 20:33	"	
Molybdenum [He]	ND	0.00100	"	"	"	CLV	"	"	"	
Selenium [NG]	ND	0.00500	"	"	"	CLV	"	"	"	



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Choctaw Generation LP  
2391 Pensacola Rd.  
Ackerman MS, 39735

Project: CGLP CCR Semi Annual  
Project Number: Semi-Annual  
Project Manager: Jim Ward

Reported:  
10/08/2021 08:54

### Classical Chemistry Parameters - Quality Control

Analyte	Analyzed	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifiers
Batch 1110020 - Default Prep GenChem											
Blank (1110020-BLK1)											
Fluoride	9/10/21 11:16	ND	0.22	mg/L							
LCS (1110020-BS1)											
Fluoride	9/10/21 11:16	1.91	0.22	mg/L	2.00		95.5	83.3-107			
LCS Dup (1110020-BSD1)											
Fluoride	9/10/21 11:16	1.92	0.22	mg/L	2.00		96.0	83.3-107	0.522	30	
Duplicate (1110020-DUP1) Source: 2109187-01											
Fluoride	9/10/21 11:16	0.41	0.22	mg/L		0.41			0.244	20	
Duplicate (1110020-DUP2) Source: 2109163-01											
Fluoride	9/10/21 11:16	0.49	0.22	mg/L		0.48			0.828	20	
Matrix Spike (1110020-MS1) Source: 2109187-01											
Fluoride	9/10/21 11:16	2.32	0.22	mg/L	2.00	0.41	95.6	79.3-113			
Matrix Spike (1110020-MS2) Source: 2109163-01											
Fluoride	9/10/21 11:16	2.50	0.22	mg/L	2.00	0.48	101	79.3-113			
Matrix Spike Dup (1110020-MSD1) Source: 2109187-01											
Fluoride	9/10/21 11:16	2.37	0.22	mg/L	2.00	0.41	98.0	79.3-113	2.13	30	
Matrix Spike Dup (1110020-MSD2) Source: 2109163-01											
Fluoride	9/10/21 11:16	2.51	0.22	mg/L	2.00	0.48	101	79.3-113	0.399	30	

Batch 1113055 - Default Prep GenChem

Blank (1113055-BLK1)

Total Dissolved Solids	9/14/21 0:00	ND	1	mg/L
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Project: CGLP CCR Semi Annual  
Project Number: Semi-Annual  
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### Classical Chemistry Parameters - Quality Control

Analyte	Analyzed	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifiers
Batch 1113055 - Default Prep GenChem											
LCS (1113055-BS1)											
Total Dissolved Solids	9/14/21 0:00	113	1	mg/L	150		75.3	65-105			
LCS Dup (1113055-BSD1)											
Total Dissolved Solids	9/14/21 0:00	119	1	mg/L	150		79.3	65-105	5.17	15	
Duplicate (1113055-DUP1) Source: 2109163-01											
Total Dissolved Solids	9/14/21 0:00	431	1	mg/L		426			1.17	10	
Duplicate (1113055-DUP2) Source: 2109187-12											
Total Dissolved Solids	9/14/21 0:00	842	2	mg/L		834			0.955	10	
Batch 1114031 - Default Prep GenChem											
Blank (1114031-BLK1)											
Chloride	9/13/21 13:38	ND	0.500	mg/L							
Sulfate as SO4	9/13/21 13:38	ND	5.00	"							
LCS (1114031-BS1)											
Chloride	9/13/21 12:34	9.77	0.500	mg/L	10.0		97.7	81.8-111			
Sulfate as SO4	9/13/21 12:34	9.60	5.00	"	10.0		96.0	85.6-111			
LCS Dup (1114031-BSD1)											
Chloride	9/13/21 13:06	10.1	0.500	mg/L	10.0		101	81.8-111	3.36	20	
Sulfate as SO4	9/13/21 13:06	9.73	5.00	"	10.0		97.3	85.6-111	1.39	20	
Duplicate (1114031-DUP1) Source: 2109187-06											
Chloride	9/13/21 18:24	2.48	0.500	mg/L		2.49			0.161	20	
Sulfate as SO4	9/13/21 18:24	ND	5.00	"		ND				20	





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### Classical Chemistry Parameters - Quality Control

Analyte	Analyzed	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifiers
Batch 1114031 - Default Prep GenChem											
Matrix Spike (1114031-MS1)			Source: 2109187-06								
Chloride	9/13/21 18:55	14.9	0.500	mg/L	12.0	2.49	104	75.3-124			
Sulfate as SO <sub>4</sub>	9/13/21 18:55	12.9	5.00	"	12.0	ND	108	60.6-139			
Matrix Spike Dup (1114031-MSD1)			Source: 2109187-06								
Chloride	9/13/21 19:27	15.5	0.500	mg/L	12.0	2.49	109	75.3-124	4.15	20	
Sulfate as SO <sub>4</sub>	9/13/21 19:27	10.9	5.00	"	12.0	ND	90.9	60.6-139	17.0	20	

Choctaw Generation LP  
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**Metals by EPA 200 Series Methods ICP-AES - Quality Control**

Analyte	Analyzed	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifiers
Batch 1113041 - EPA 200.2 DCN 1017 Rev 10											
<b>Blank (1113041-BLK1)</b>											
Barium 455.403 [Radial]	9/21/21 16:00	ND	0.010	mg/L							
Boron 249.773 [Radial]	9/21/21 16:00	ND	0.050	"							
Calcium 315.887 [Radial]	9/21/21 16:00	ND	0.050	"							
Lithium 610.362 [Axial]	9/21/21 16:00	ND	0.040	"							
<b>LCS (1113041-BS1)</b>											
Barium 455.403 [Radial]	9/21/21 16:03	0.212	0.010	mg/L	0.200		106	85-115			
Boron 249.773 [Radial]	9/21/21 16:03	0.207	0.050	"	0.200		104	85-115			
Calcium 315.887 [Radial]	9/21/21 16:03	0.217	0.050	"	0.200		109	85-115			
Lithium 610.362 [Axial]	9/21/21 16:03	0.259	0.040	"	0.200		129	85-115			L1
<b>LCS Dup (1113041-BSD1)</b>											
Barium 455.403 [Radial]	9/21/21 16:07	0.197	0.010	mg/L	0.200		98.3	85-115	7.43	20	
Boron 249.773 [Radial]	9/21/21 16:07	0.198	0.050	"	0.200		98.9	85-115	4.67	20	
Calcium 315.887 [Radial]	9/21/21 16:07	0.205	0.050	"	0.200		103	85-115	5.63	20	
Lithium 610.362 [Axial]	9/21/21 16:07	0.185	0.040	"	0.200		92.4	85-115	33.3	20	L3
<b>Duplicate (1113041-DUP1)</b> Source: 2109187-01											
Calcium 315.887 [Radial]	9/27/21 11:21	49.6	0.100	mg/L		50.9			2.62	20	
<b>Matrix Spike (1113041-MS1)</b> Source: 2109187-01											
Barium 455.403 [Radial]	9/21/21 16:51	0.261	0.010	mg/L	0.200	0.084	88.8	70-130			
Boron 249.773 [Radial]	9/21/21 16:51	0.217	0.050	"	0.200	0.029	93.9	70-130			
Lithium 610.362 [Axial]	9/21/21 16:51	0.265	0.040	"	0.200	0.087	88.8	70-130			
<b>Matrix Spike Dup (1113041-MSD1)</b> Source: 2109187-01											
Barium 455.403 [Radial]	9/21/21 16:55	0.271	0.010	mg/L	0.200	0.084	93.4	70-130	3.51	20	
Boron 249.773 [Radial]	9/21/21 16:55	0.218	0.050	"	0.200	0.029	94.6	70-130	0.712	20	
Lithium 610.362 [Axial]	9/21/21 16:55	0.266	0.040	"	0.200	0.087	89.3	70-130	0.375	20	



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### Metals by EPA 200 Series Methods ICP-AES - Quality Control

Analyte	Analyzed	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifiers
Batch 1113042 - EPA 200.2 DCN 1017 Rev 10											
Blank (1113042-BLK1)											
Barium 455.403 [Radial]	9/21/21 16:00	ND	0.010	mg/L							
Boron 249.773 [Radial]	9/21/21 16:00	ND	0.050	"							
Calcium 315.887 [Radial]	9/21/21 16:00	ND	0.050	"							
Lithium 610.362 [Axial]	9/21/21 16:00	ND	0.040	"							
LCS (1113042-BS1)											
Barium 455.403 [Radial]	9/21/21 16:03	0.212	0.010	mg/L	0.200		106	85-115			
Boron 249.773 [Radial]	9/21/21 16:03	0.207	0.050	"	0.200		104	85-115			
Calcium 315.887 [Radial]	9/21/21 16:03	0.217	0.050	"	0.200		109	85-115			
Lithium 610.362 [Axial]	9/21/21 16:03	0.259	0.040	"	0.200		129	85-115			L1
LCS Dup (1113042-BSD1)											
Barium 455.403 [Radial]	9/21/21 16:07	0.197	0.010	mg/L	0.200		98.3	85-115	7.43	20	
Boron 249.773 [Radial]	9/21/21 16:07	0.198	0.050	"	0.200		98.9	85-115	4.67	20	
Calcium 315.887 [Radial]	9/21/21 16:07	0.205	0.050	"	0.200		103	85-115	5.63	20	
Lithium 610.362 [Axial]	9/21/21 16:07	0.185	0.040	"	0.200		92.4	85-115	33.3	20	L3
Duplicate (1113042-DUP1) Source: 2109163-01											
Calcium 315.887 [Radial]	9/21/21 16:22	2.93	0.050	mg/L		2.83			3.47	20	
Matrix Spike (1113042-MS1) Source: 2109163-01											
Barium 455.403 [Radial]	9/21/21 16:18	0.217	0.010	mg/L	0.200	0.011	103	70-130			
Boron 249.773 [Radial]	9/21/21 16:18	0.717	0.050	"	0.200	0.477	120	70-130			
Lithium 610.362 [Axial]	9/21/21 16:18	0.390	0.040	"	0.400	0.014	94.0	70-130			
Matrix Spike Dup (1113042-MSD1) Source: 2109163-01											
Barium 455.403 [Radial]	9/21/21 16:22	0.206	0.010	mg/L	0.200	0.011	97.8	70-130	4.80	20	
Boron 249.773 [Radial]	9/21/21 16:22	0.657	0.050	"	0.200	0.477	90.0	70-130	8.66	20	
Lithium 610.362 [Axial]	9/21/21 16:22	0.371	0.040	"	0.400	0.014	89.3	70-130	4.95	20	



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Project: CGLP CCR Semi Annual  
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Project Manager: Jim Ward

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**Metals by EPA 200 Series Methods ICP-MS [Analysis Mode] - Quality Control**

Analyte	Analyzed	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifiers
Batch 1113037 - EPA 200.2 DCN 1017 Rev 10											
Blank (1113037-BLK1)											
Antimony [He]	9/16/21 17:03	ND	0.00200	mg/L							
Arsenic [NG]	9/20/21 14:25	ND	0.00200	"							
Beryllium [He]	9/20/21 14:25	ND	0.00100	"							
Cadmium [He]	9/16/21 17:03	ND	0.00100	"							
Chromium [He]	9/16/21 17:03	ND	0.00100	"							
Cobalt [He]	9/20/21 14:25	ND	0.00100	"							
Lead [He]	9/16/21 17:03	ND	0.00100	"							
Molybdenum [He]	9/16/21 17:03	ND	0.00100	"							
Selenium [NG]	9/16/21 17:03	ND	0.00500	"							
Selenium [He]	9/16/21 17:03	ND	0.00100	"							
LCS (1113037-BS1)											
Antimony [He]	9/16/21 17:09	0.121	0.00200	mg/L	0.100		121	85-115			L1
Arsenic [NG]	9/20/21 14:31	0.116	0.00200	"	0.100		116	85-115			L1
Beryllium [He]	9/20/21 14:31	0.123	0.00100	"	0.100		123	85-115			L1
Cadmium [He]	9/16/21 17:09	0.114	0.00100	"	0.100		114	85-115			
Chromium [He]	9/16/21 17:09	0.117	0.00100	"	0.100		117	85-115			L1
Cobalt [He]	9/20/21 14:31	0.125	0.00100	"	0.100		125	85-115			L1
Lead [He]	9/16/21 17:09	0.115	0.00100	"	0.100		115	85-115			
Molybdenum [He]	9/16/21 17:09	0.114	0.00100	"	0.100		114	85-115			
Selenium [NG]	9/16/21 17:09	0.109	0.00500	"	0.100		109	85-115			
Selenium [He]	9/16/21 17:09	0.100	0.00100	"	0.100		100	85-115			
LCS Dup (1113037-BSD1)											
Antimony [He]	9/16/21 17:15	0.110	0.00200	mg/L	0.100		110	85-115	9.14	20	
Arsenic [NG]	9/20/21 14:37	0.108	0.00200	"	0.100		108	85-115	6.94	20	
Beryllium [He]	9/20/21 14:37	0.114	0.00100	"	0.100		114	85-115	7.40	20	
Cadmium [He]	9/16/21 17:15	0.103	0.00100	"	0.100		103	85-115	9.55	20	
Chromium [He]	9/16/21 17:15	0.106	0.00100	"	0.100		106	85-115	10.4	20	
Cobalt [He]	9/20/21 14:37	0.114	0.00100	"	0.100		114	85-115	8.56	20	
Lead [He]	9/16/21 17:15	0.105	0.00100	"	0.100		105	85-115	9.06	20	
Molybdenum [He]	9/16/21 17:15	0.105	0.00100	"	0.100		105	85-115	7.91	20	
Selenium [NG]	9/16/21 17:15	0.102	0.00500	"	0.100		102	85-115	6.09	20	
Selenium [He]	9/16/21 17:15	0.093	0.00100	"	0.100		93.0	85-115	7.36	20	

Choctaw Generation LP  
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**Metals by EPA 200 Series Methods ICP-MS [Analysis Mode] - Quality Control**

Analyte	Analyzed	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifiers
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Batch 1113037 - EPA 200.2 DCN 1017 Rev 10

**Matrix Spike (1113037-MS1)**

Source: 2109162-01

Antimony [He]	9/16/21 17:26	0.111	0.00200	mg/L	0.100	0.0005	110	70-130			
Beryllium [He]	9/20/21 14:48	0.113	0.00100	"	0.100	ND	113	70-130			
Cadmium [He]	9/16/21 17:26	0.103	0.00100	"	0.100	0.0007	102	70-130			
Chromium [He]	9/16/21 17:26	0.107	0.00100	"	0.100	0.001	106	70-130			
Cobalt [He]	9/20/21 14:48	0.111	0.00100	"	0.100	ND	111	70-130			
Lead [He]	9/16/21 17:26	0.106	0.00100	"	0.100	0.002	105	70-130			
Molybdenum [He]	9/16/21 17:26	0.145	0.00100	"	0.100	0.036	109	70-130			
Selenium [He]	9/16/21 17:26	0.092	0.00100	"	0.100	0.0006	90.9	70-130			
Selenium [NG]	9/16/21 17:26	0.097	0.00500	"	0.100	0.002	97.0	70-130			

**Matrix Spike Dup (1113037-MSD1)**

Source: 2109162-01

Antimony [He]	9/16/21 17:32	0.111	0.00200	mg/L	0.100	0.0005	110	70-130	0.0104	20	
Beryllium [He]	9/20/21 14:54	0.116	0.00100	"	0.100	ND	116	70-130	2.22	20	
Cadmium [He]	9/16/21 17:32	0.103	0.00100	"	0.100	0.0007	103	70-130	0.462	20	
Chromium [He]	9/16/21 17:32	0.109	0.00100	"	0.100	0.001	108	70-130	1.81	20	
Cobalt [He]	9/20/21 14:54	0.113	0.00100	"	0.100	ND	113	70-130	1.43	20	
Lead [He]	9/16/21 17:32	0.107	0.00100	"	0.100	0.002	105	70-130	0.481	20	
Molybdenum [He]	9/16/21 17:32	0.148	0.00100	"	0.100	0.036	111	70-130	1.58	20	
Selenium [He]	9/16/21 17:32	0.090	0.00100	"	0.100	0.0006	89.1	70-130	2.02	20	
Selenium [NG]	9/16/21 17:32	0.097	0.00500	"	0.100	0.002	97.0	70-130	0.0720	20	

Batch 1113040 - EPA 200.2 DCN 1017 Rev 10

**Blank (1113040-BLK1)**

Antimony [He]	9/16/21 18:48	ND	0.00200	mg/L							
Arsenic [NG]	9/20/21 14:25	ND	0.00200	"							
Beryllium [He]	9/20/21 14:25	ND	0.00100	"							
Cadmium [He]	9/16/21 18:48	ND	0.00100	"							
Chromium [He]	9/16/21 18:48	ND	0.00100	"							
Cobalt [He]	9/20/21 14:25	ND	0.00100	"							
Lead [He]	9/16/21 18:48	ND	0.00100	"							
Molybdenum [He]	9/16/21 18:48	ND	0.00100	"							
Selenium [NG]	9/16/21 18:48	ND	0.00500	"							

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**Metals by EPA 200 Series Methods ICP-MS [Analysis Mode] - Quality Control**

Analyte	Analyzed	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifiers
Batch 1113040 - EPA 200.2 DCN 1017 Rev 10											
<b>LCS (1113040-BS1)</b>											
Antimony [He]	9/20/21 14:31	0.116	0.00200	mg/L	0.100		116	85-115			L1
Arsenic [NG]	9/20/21 14:31	0.116	0.00200	"	0.100		116	85-115			L1
Beryllium [He]	9/20/21 14:31	0.123	0.00100	"	0.100		123	85-115			L1
Cadmium [He]	9/20/21 14:31	0.121	0.00100	"	0.100		121	85-115			L1
Chromium [He]	9/20/21 14:31	0.123	0.00100	"	0.100		123	85-115			L1
Cobalt [He]	9/20/21 14:31	0.125	0.00100	"	0.100		125	85-115			L1
Lead [He]	9/20/21 14:31	0.119	0.00100	"	0.100		119	85-115			L1
Molybdenum [He]	9/20/21 14:31	0.119	0.00100	"	0.100		119	85-115			L1
Selenium [NG]	9/16/21 18:53	0.110	0.00500	"	0.100		110	85-115			
<b>LCS Dup (1113040-BSD1)</b>											
Antimony [He]	9/16/21 18:59	0.112	0.00200	mg/L	0.100		112	85-115	3.31	20	
Arsenic [NG]	9/20/21 14:37	0.108	0.00200	"	0.100		108	85-115	6.94	20	
Beryllium [He]	9/20/21 14:37	0.114	0.00100	"	0.100		114	85-115	7.40	20	
Cadmium [He]	9/16/21 18:59	0.106	0.00100	"	0.100		106	85-115	13.1	20	
Chromium [He]	9/16/21 18:59	0.110	0.00100	"	0.100		110	85-115	11.1	20	
Cobalt [He]	9/20/21 14:37	0.114	0.00100	"	0.100		114	85-115	8.56	20	
Lead [He]	9/16/21 18:59	0.107	0.00100	"	0.100		107	85-115	10.8	20	
Molybdenum [He]	9/16/21 18:59	0.107	0.00100	"	0.100		107	85-115	10.4	20	
Selenium [NG]	9/16/21 18:59	0.104	0.00500	"	0.100		104	85-115	5.44	20	
<b>Matrix Spike (1113040-MS1)</b> Source: 2109187-01											
Antimony [He]	9/16/21 19:11	0.111	0.00200	mg/L	0.100	ND	111	70-130			
Arsenic [NG]	9/27/21 16:35	0.109	0.00200	"	0.100	0.0007	109	70-130			
Beryllium [He]	9/27/21 16:35	0.098	0.00100	"	0.100	0.004	94.7	70-130			
Cadmium [He]	9/16/21 19:11	0.099	0.00100	"	0.100	0.0007	97.8	70-130			
Chromium [He]	9/16/21 19:11	0.096	0.00100	"	0.100	ND	95.7	70-130			
Cobalt [He]	9/27/21 16:35	0.111	0.00100	"	0.100	0.018	92.6	70-130			
Lead [He]	9/16/21 19:11	0.114	0.00100	"	0.100	0.001	113	70-130			
Molybdenum [He]	9/16/21 19:11	0.113	0.00100	"	0.100	0.0004	112	70-130			
Selenium [NG]	9/16/21 19:11	0.098	0.00500	"	0.100	0.003	95.1	70-130			

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR Semi Annual  
 Project Number: Semi-Annual  
 Project Manager: Jim Ward

 Reported:  
 10/08/2021 08:54

**Metals by EPA 200 Series Methods ICP-MS [Analysis Mode] - Quality Control**

Analyte	Analyzed	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifiers
---------	----------	--------	-----	-------	-------------	---------------	------	-------------	-----	-----------	------------

Batch 1113040 - EPA 200.2 DCN 1017 Rev 10

Matrix Spike Dup (1113040-MSD1)

Source: 2109187-01

Antimony [He]	9/16/21 19:17	0.111	0.00200	mg/L	0.100	ND	111	70-130	0.671	20	
Arsenic [NG]	9/27/21 16:41	0.109	0.00200	"	0.100	0.0007	109	70-130	0.409	20	
Beryllium [He]	9/27/21 16:41	0.103	0.00100	"	0.100	0.004	98.8	70-130	4.05	20	
Cadmium [He]	9/16/21 19:17	0.098	0.00100	"	0.100	0.0007	97.5	70-130	0.345	20	
Chromium [He]	9/16/21 19:17	0.097	0.00100	"	0.100	ND	97.4	70-130	1.80	20	
Cobalt [He]	9/27/21 16:41	0.114	0.00100	"	0.100	0.018	95.4	70-130	2.54	20	
Lead [He]	9/16/21 19:17	0.112	0.00100	"	0.100	0.001	111	70-130	1.28	20	
Molybdenum [He]	9/16/21 19:17	0.114	0.00100	"	0.100	0.0004	114	70-130	0.997	20	
Selenium [NG]	9/16/21 19:17	0.099	0.00500	"	0.100	0.003	96.1	70-130	0.974	20	

Choctaw Generation LP  
 2391 Pensacola Rd.  
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 Project: CGLP CCR Semi Annual  
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 Reported:  
 10/08/2021 08:54

**Certified Analyses Included in this Report**

Analyte	Certification Code
<b><i>EPA 200.7 Rev 4.4 in Water</i></b>	
Aluminum 237.312 [Radial]	C01,C02
Aluminum 394.401 [Radial]	C01,C02
Aluminum 396.152 [Radial]	C01,C02
Antimony 206.833 [Axial]	C01,C02
Arsenic 193.759 [Axial]	C01,C02
Barium 455.403 [Radial]	C01,C02
Barium 493.409 [Radial]	C01,C02
Beryllium 313.042 [Axial]	C01,C02
Boron 249.773 [Radial]	C01,C02
Cadmium 228.802 [Axial]	C01,C02
Calcium 315.887 [Radial]	C01,C02
Chromium 283.563 [Axial]	C01,C02
Cobalt 228.616 [Axial]	C01,C02
Copper 324.754 [Axial]	C01,C02
Iron 259.940 [Axial]	C01,C02
Iron 259.940 [Radial]	C01,C02
Lead 220.353 [Axial]	C01,C02
Lithium 610.362 [Axial]	C01,C02
Magnesium 285.213 [Radial]	C01,C02
Manganese 257.610 [Axial]	C01,C02
Molybdenum 202.030 [Axial]	C01,C02
Nickel 231.604 [Axial]	C01,C02
Potassium 766.490 [Radial]	C01,C02
Phosphorus 178.284 [Axial]	C01,C02
Phosphorus 178.284 [Radial]	C01,C02
Selenium 196.090 [Axial]	C01,C02
Silver 328.068 [Axial]	C01,C02
Sodium 589.592 [Axial]	C01,C02
Sodium 589.592 [Radial]	C01,C02
Strontium 346.446 [Radial]	C01,C02
Strontium 421.552 [Radial]	C01,C02
Thallium 190.856 [Axial]	C01,C02
Tin 189.989 [Axial]	C01,C02
Titanium 334.941 [Axial]	C01,C02
Vanadium 309.311 [Axial]	C01,C02
Zinc 213.856 [Axial]	C01,C02
<b><i>EPA 200.8 Rev 5.4 in Water</i></b>	
Aluminum [He]	C01,C02
Antimony [He]	C01,C02
Antimony [HHe]	C01,C02
Antimony [NG]	C01,C02



Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR Semi Annual  
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 Reported:  
 10/08/2021 08:54

Arsenic [He]	C01
Arsenic [HHe]	C01,C02
Arsenic [NG]	C01,C02
Barium [He]	C01,C02
Beryllium [He]	C01,C02
Boron [NG]	C01,C02
Cadmium [He]	C01
Cadmium [HHe]	C01,C02
Cadmium [NG]	C01,C02
Chromium [He]	C01,C02
Cobalt [He]	C01,C02
Copper [He]	C01,C02
Copper [NG]	C01,C02
Iron [He]	C01,C02
Lead [He]	C01,C02
Lead [NG]	C01,C02
Manganese [He]	C01,C02
Molybdenum [He]	C01,C02
Nickel [He]	C01,C02
Selenium [He]	C01
Selenium [HHe]	C01,C02
Selenium [NG]	C01,C02
Silver [He]	C01,C02
Silver [NG]	C01,C02
Strontium [He]	C01,C02
Thallium [He]	C01,C02
Vanadium [He]	C01,C02
Zinc [He]	C01,C02

**SM 2540 C-2011 in Water**

Total Dissolved Solids	C01,C02
------------------------	---------

**\*\*Only compounds included in this list are associated with accredited analyses\*\***

Choctaw Generation LP  
 2391 Pensacola Rd.  
 Ackerman MS, 39735

 Project: CGLP CCR Semi Annual  
 Project Number: Semi-Annual  
 Project Manager: Jim Ward

 Reported:  
 10/08/2021 08:54

#### Laboratory Accreditations/Certifications

Code	Description	Number	Expires
C01	LA Environmental Lab Accreditation Program	01960	06/30/2022
C02	The NELAC Institute (NELAP)	TNI01397	06/30/2022
C03	Ms Dept of Health (Drinking Water Microbiology)	MS00021	12/31/2021
C04	Ms Dept of Health (Drinking Water Chemistry)	MS00021	12/31/2021
C05	Ms DEQ Lead Firm Certification	PBF-00000028	03/24/2022
C06	MsDEQ Asbestos Inspector : C.D. Bingham	ABI-00001348	02/12/2022
C07	MsDEQ Air Monitor : C.D. Bingham	AM-011572	02/13/2022
C08	MsDEQ Asbestos Inspector: C. W. Meins	ABI-00001821	09/09/2022
C09	MsDEQ Air Monitor : C.W. Meins	AM-011189	02/13/2022
C14	MsDEQ Lead Paint Inspector : C.D. Bingham	PBI-00003690	03/24/2022
C15	MsDEQ Lead Paint Inspector : C.W. Meins	PBI-00001740	03/24/2022

#### Report Definitions

TNC	Too Numerous To Count
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the minimum reporting limit
NR	Not Reported
RPD	Relative Percent Difference
ICV	Initial Calibration Verification
CCV	Continuing Calibration Verification Standard
SSV	Secondary Source Verification Standard
LCS	Lab Control Spike - Lab matrix prepared with known concentration of analyte/s of interest analyzed by method.
MS	Matrix Spike - Sample prepared with known concentration of analyte/s of interest analyzed by method.
MSD	Matrix Spike Duplicate - Duplicate sample prepared with known concentration of analyte/s of interest analyzed by method.
MRL	Minimum Reporting Limit
%REC	Percentage Recovery of known concentration added to matrix
Batch	Group of samples prepared for analysis not to exceed 20 samples.
Matrix	Material containing analyte/s of interest
Surrogate	Analyte added to sample to determine extraction efficiency of method.



6500 Sunplex Drive  
Ocean Springs, MS 39564  
228-875-6420 Phone  
228-875-6423 Fax

Choctaw Generation LP  
2391 Pensacola Rd.  
Ackerman MS, 39735

Project: CGLP CCR Semi Annual  
Project Number: Semi-Annual  
Project Manager: Jim Ward

**Reported:**  
10/08/2021 08:54

### Analyst Initials Key

<u>FullName</u>	<u>Initials</u>
Charles L Vorhoff	CLV
Dortha L. Wells	DLW
Sarah E. Tomek	SET
Teresa Meins	TKM
Tina Tomek	TPT
Zain A Kleist	ZAK



PO Box 1410, Ocean Springs, MS 39566-1410  
(228) 875-6420 FAX (228) 875-6423  
www.micromethodslab.com

Chain of Custody Record

Lab ID# MS00021  
LELAP ID# 01960  
TNI ID# TNI01397

pg 10f2

M-M Lab  
WO #

2109187

Print Form

Company Name: Choctaw Generation Limited Partnership LLP

Address: 2391 Pensacola Rd.

City: Ackerman State: MS Zip: 39735

Phone: 662-387-5758

Fax:

Project Manager:

Jim Ward

Purchase Order #:

Email Address:

Sampler Name Printed:

Sampler Name Signed:

Jim Ward

Turn Around Time & Reporting  
Our normal turn around time is 10 working days

☒ Normal ☐ Phone

☐ Next Day\* ☐ Mail

☐ 2nd Day\* ☐ Fax

☐ Other\* ☐ Email

QC Level: Level 1 ☐ Level 2 ☐ Level 3 ☐

Project Name: CGLP CCR

Project #: Semi-Annual

Sample Identification

Sampling Date/Time Matrix Code

MW-9 09/08/21 09:40 W

OW-2 09/08/21 11:41 W

MW-13 09/08/21 09:45 W

MW-7 09/08/21 11:00 W

MW-14 09/08/21 12:05 W

Field Blank 09/08/21 12:35 W

Duplicate 09/08/21 10:38 W

MW-12 09/08/21 12:50 W

CCR-2 09/08/21 08:30 W

CCR-3 09/08/21 14:00 W

CCR-4

Received on Ice

Thermometer# 5

Date & Time

By: 81

Sample Blank

List Analyses Requested

Preservative:

Grab (G) or Composite (C)

TDS

Chloride, Fluoride, Sulfate

Antimony, Arsenic

Barium, Boron, Beryllium

Cadmium, Chromium

Lead, Calcium, Cobalt

Lithium

Molybdenum, Selenium

Total Radium 226 & 228

Field Testing

ID# Field Test ID# Field Test ID# Field Test ID# Field Test

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Preservation:

1=H2SO4

2=H3PO4

3=NaOH

4=ZnCAH1006

5=ZnCAH1006 & NaOH

6=HNO3

7=Na2S2O3

8=HCl

9=NaHSO4

Notes:

COOL# 517

COOL# 1119

COOL# 1132

COOL# 1132

COOL# 1132

COOL# 1132

COOL# 1132

COOL# 1132

DCN# F316 Rev.#5

Physical Address: 6500 Sunplex Drive, Ocean Springs MS 39564



October 07, 2021

Tina Tomek  
Micro-Methods Lab  
6500 Sunplex Drive  
Ocean Springs, MS 39564

RE: Project: 2109187  
Pace Project No.: 30441480

Dear Tina Tomek:

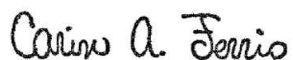
Enclosed are the analytical results for sample(s) received by the laboratory on September 16, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Greensburg

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

Sincerely,



Carin Ferris  
carin.ferris@pacelabs.com  
724-850-5615  
Project Manager

Enclosures

cc: Accounts Payable, Micro-Methods Lab



## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
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## CERTIFICATIONS

Project: 2109187

Pace Project No.: 30441480

### Pace Analytical Services Pennsylvania

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

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 9526

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 2109187  
Pace Project No.: 30441480

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30441480001	2109187-01	Water	09/08/21 09:40	09/16/21 10:10
30441480002	2109187-02	Water	09/08/21 11:41	09/16/21 10:10
30441480003	2109187-03	Water	09/08/21 09:45	09/16/21 10:10
30441480004	2109187-04	Water	09/08/21 11:00	09/16/21 10:10
30441480005	2109187-05	Water	09/08/21 12:05	09/16/21 10:10
30441480006	2109187-06	Water	09/08/21 12:35	09/16/21 10:10
30441480007	2109187-07	Water	09/08/21 00:00	09/16/21 10:10
30441480008	2109187-08	Water	09/08/21 10:38	09/16/21 10:10
30441480009	2109187-09	Water	09/08/21 12:50	09/16/21 10:10
30441480010	2109187-10	Water	09/08/21 08:38	09/16/21 10:10
30441480011	2109187-11	Water	09/08/21 14:00	09/16/21 10:10
30441480012	2109187-12	Water	09/08/21 08:27	09/16/21 10:10

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE ANALYTE COUNT

Project: 2109187  
Pace Project No.: 30441480

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30441480001	2109187-01	EPA 903.1	SLC	1
		EPA 904.0	JC2	1
30441480002	2109187-02	EPA 903.1	SLC	1
		EPA 904.0	JC2	1
30441480003	2109187-03	EPA 903.1	SLC	1
		EPA 904.0	JC2	1
30441480004	2109187-04	EPA 903.1	SLC	1
		EPA 904.0	JC2	1
30441480005	2109187-05	EPA 903.1	SLC	1
		EPA 904.0	JC2	1
30441480006	2109187-06	EPA 903.1	SLC	1
		EPA 904.0	JC2	1
30441480007	2109187-07	EPA 903.1	SLC	1
		EPA 904.0	JC2	1
30441480008	2109187-08	EPA 903.1	SLC	1
		EPA 904.0	JC2	1
30441480009	2109187-09	EPA 903.1	SLC	1
		EPA 904.0	JC2	1
30441480010	2109187-10	EPA 903.1	SLC	1
		EPA 904.0	JC2	1
30441480011	2109187-11	EPA 903.1	SLC	1
		EPA 904.0	JC2	1
30441480012	2109187-12	EPA 903.1	SLC	1
		EPA 904.0	JC2	1

PASI-PA = Pace Analytical Services - Greensburg

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2109187  
Pace Project No.: 30441480

**Sample: 2109187-01**      **Lab ID: 30441480001**      Collected: 09/08/21 09:40      Received: 09/16/21 10:10      Matrix: Water  
PWS:      Site ID:      Sample Type:  
Comments: • One bottle received empty.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.911 ± 0.736 (0.411)</b> <b>C:NA T:99%</b>	pCi/L	10/06/21 14:16	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.251 ± 0.629 (1.41)</b> <b>C:73% T:89%</b>	pCi/L	10/05/21 14:37	15262-20-1	

**Sample: 2109187-02**      **Lab ID: 30441480002**      Collected: 09/08/21 11:41      Received: 09/16/21 10:10      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.000 ± 0.282 (0.455)</b> <b>C:NA T:93%</b>	pCi/L	10/06/21 14:27	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.655 ± 0.388 (0.710)</b> <b>C:74% T:91%</b>	pCi/L	10/05/21 14:37	15262-20-1	

**Sample: 2109187-03**      **Lab ID: 30441480003**      Collected: 09/08/21 09:45      Received: 09/16/21 10:10      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.524 ± 0.383 (0.428)</b> <b>C:NA T:98%</b>	pCi/L	10/06/21 14:16	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>1.24 ± 0.502 (0.809)</b> <b>C:72% T:92%</b>	pCi/L	10/05/21 14:35	15262-20-1	

**Sample: 2109187-04**      **Lab ID: 30441480004**      Collected: 09/08/21 11:00      Received: 09/16/21 10:10      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	<b>0.377 ± 0.351 (0.462)</b> <b>C:NA T:98%</b>	pCi/L	10/06/21 14:16	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	<b>0.599 ± 0.429 (0.833)</b> <b>C:67% T:85%</b>	pCi/L	10/05/21 14:35	15262-20-1	

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
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## ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2109187  
Pace Project No.: 30441480

<b>Sample: 2109187-05</b>		<b>Lab ID: 30441480005</b>	Collected: 09/08/21 12:05	Received: 09/16/21 10:10	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No. Qual
Radium-226	Pace Analytical Services - Greensburg			pCi/L	10/06/21 14:16	13982-63-3
	EPA 903.1	<b>0.000 ± 0.279 (0.625)</b> <b>C:NA T:104%</b>				
Radium-228	Pace Analytical Services - Greensburg			pCi/L	10/05/21 14:35	15262-20-1
	EPA 904.0	<b>0.710 ± 0.413 (0.763)</b> <b>C:74% T:87%</b>				
<b>Sample: 2109187-06</b>		<b>Lab ID: 30441480006</b>	Collected: 09/08/21 12:35	Received: 09/16/21 10:10	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Comments: • One bottle received empty.						
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No. Qual
Radium-226	Pace Analytical Services - Greensburg			pCi/L	10/06/21 14:16	13982-63-3
	EPA 903.1	<b>0.303 ± 0.692 (0.411)</b> <b>C:NA T:95%</b>				
Radium-228	Pace Analytical Services - Greensburg			pCi/L	10/05/21 14:35	15262-20-1
	EPA 904.0	<b>-0.210 ± 0.764 (1.80)</b> <b>C:72% T:90%</b>				
<b>Sample: 2109187-07</b>		<b>Lab ID: 30441480007</b>	Collected: 09/08/21 00:00	Received: 09/16/21 10:10	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No. Qual
Radium-226	Pace Analytical Services - Greensburg			pCi/L	10/06/21 14:16	13982-63-3
	EPA 903.1	<b>0.414 ± 0.430 (0.640)</b> <b>C:NA T:100%</b>				
Radium-228	Pace Analytical Services - Greensburg			pCi/L	10/05/21 14:35	15262-20-1
	EPA 904.0	<b>0.934 ± 0.452 (0.787)</b> <b>C:68% T:98%</b>				
<b>Sample: 2109187-08</b>		<b>Lab ID: 30441480008</b>	Collected: 09/08/21 10:38	Received: 09/16/21 10:10	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No. Qual
Radium-226	Pace Analytical Services - Greensburg			pCi/L	10/06/21 14:16	13982-63-3
	EPA 903.1	<b>0.237 ± 0.521 (0.941)</b> <b>C:NA T:99%</b>				
Radium-228	Pace Analytical Services - Greensburg			pCi/L	10/05/21 14:35	15262-20-1
	EPA 904.0	<b>0.964 ± 0.447 (0.757)</b> <b>C:74% T:86%</b>				

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2109187  
Pace Project No.: 30441480

<b>Sample: 2109187-09</b>		<b>Lab ID: 30441480009</b>	Collected: 09/08/21 12:50	Received: 09/16/21 10:10	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg							
Radium-226	EPA 903.1	<b>0.331 ± 0.392 (0.616)</b> <b>C:NA T:99%</b>		pCi/L	10/06/21 14:38	13982-63-3	
Pace Analytical Services - Greensburg							
Radium-228	EPA 904.0	<b>0.577 ± 0.426 (0.836)</b> <b>C:70% T:86%</b>		pCi/L	10/05/21 14:35	15262-20-1	
<b>Sample: 2109187-10</b>		<b>Lab ID: 30441480010</b>	Collected: 09/08/21 08:38	Received: 09/16/21 10:10	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg							
Radium-226	EPA 903.1	<b>0.380 ± 0.395 (0.589)</b> <b>C:NA T:94%</b>		pCi/L	10/06/21 14:38	13982-63-3	
Pace Analytical Services - Greensburg							
Radium-228	EPA 904.0	<b>0.853 ± 0.460 (0.836)</b> <b>C:72% T:90%</b>		pCi/L	10/05/21 14:35	15262-20-1	
<b>Sample: 2109187-11</b>		<b>Lab ID: 30441480011</b>	Collected: 09/08/21 14:00	Received: 09/16/21 10:10	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg							
Radium-226	EPA 903.1	<b>0.431 ± 0.448 (0.668)</b> <b>C:NA T:94%</b>		pCi/L	10/06/21 14:38	13982-63-3	
Pace Analytical Services - Greensburg							
Radium-228	EPA 904.0	<b>0.848 ± 0.441 (0.784)</b> <b>C:69% T:92%</b>		pCi/L	10/05/21 14:35	15262-20-1	
<b>Sample: 2109187-12</b>		<b>Lab ID: 30441480012</b>	Collected: 09/08/21 08:27	Received: 09/16/21 10:10	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg							
Radium-226	EPA 903.1	<b>0.184 ± 0.281 (0.451)</b> <b>C:NA T:98%</b>		pCi/L	10/06/21 14:49	13982-63-3	
Pace Analytical Services - Greensburg							
Radium-228	EPA 904.0	<b>0.437 ± 0.395 (0.806)</b> <b>C:71% T:89%</b>		pCi/L	10/05/21 14:35	15262-20-1	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL - RADIOCHEMISTRY

Project: 2109187  
Pace Project No.: 30441480

QC Batch:	465325	Analysis Method:	EPA 903.1
QC Batch Method:	EPA 903.1	Analysis Description:	903.1 Radium-226
		Laboratory:	Pace Analytical Services - Greensburg
Associated Lab Samples:	30441480001, 30441480002, 30441480003, 30441480004, 30441480005, 30441480006, 30441480007, 30441480008, 30441480009, 30441480010, 30441480011, 30441480012		

METHOD BLANK:	2247040	Matrix:	Water
Associated Lab Samples:	30441480001, 30441480002, 30441480003, 30441480004, 30441480005, 30441480006, 30441480007, 30441480008, 30441480009, 30441480010, 30441480011, 30441480012		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0918 ± 0.285 (0.551) C:NA T:98%	pCi/L	10/06/21 13:53	

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

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL - RADIOCHEMISTRY

Project: 2109187  
Pace Project No.: 30441480

QC Batch:	465326	Analysis Method:	EPA 904.0
QC Batch Method:	EPA 904.0	Analysis Description:	904.0 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg
Associated Lab Samples:	30441480001, 30441480002, 30441480003, 30441480004, 30441480005, 30441480006, 30441480007, 30441480008, 30441480009, 30441480010, 30441480011, 30441480012		

METHOD BLANK:	2247041	Matrix:	Water
Associated Lab Samples:	30441480001, 30441480002, 30441480003, 30441480004, 30441480005, 30441480006, 30441480007, 30441480008, 30441480009, 30441480010, 30441480011, 30441480012		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.533 ± 0.386 (0.749) C:67% T:86%	pCi/L	10/05/21 11:27	

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

## REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: 2109187  
Pace Project No.: 30441480

## DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

Act - Activity

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

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

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

## REPORT OF LABORATORY ANALYSIS

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WO#: 30441480



30441480

**SUBCONTRACT  
ORDER****Sending Laboratory:**

Micro-Methods Laboratory, Inc.  
6500 Sunplex Drive  
Ocean Springs, MS 39564  
Phone: 228.875.6420  
Fax: 228.875.6423

Project Manager: Teresa Meins

**Subcontracted Laboratory:**

Pace Analytical-7  
1638 Roseytown Rd. Suites 2, 3, 4  
Greensburg, PA 15601  
Phone: (724) 850-5600  
Fax: -

Attn: Carin Ferris

**Work Order: 2109187**

Analysis	Due	Expires	Comments
----------	-----	---------	----------

**Sample ID: 2109187-01** Water **Sampled: 09/08/2021 09:40** **Sample Name: MW-9**

Radium, Total 226 &amp; 228 by EPA 903.1 &amp; 9C 09/17/2021 10/06/2021 09:40

Containers Supplied:

001

**Sample ID: 2109187-02** Water **Sampled: 09/08/2021 11:41** **Sample Name: OW-2**

Radium, Total 226 &amp; 228 by EPA 903.1 &amp; 9C 09/17/2021 10/06/2021 11:41

Containers Supplied:

002

**Sample ID: 2109187-03** Water **Sampled: 09/08/2021 09:45** **Sample Name: MW-13**

Radium, Total 226 &amp; 228 by EPA 903.1 &amp; 9C 09/17/2021 10/06/2021 09:45

Containers Supplied:

003

**Sample ID: 2109187-04** Water **Sampled: 09/08/2021 11:00** **Sample Name: MW-7**

Radium, Total 226 &amp; 228 by EPA 903.1 &amp; 9C 09/17/2021 10/06/2021 11:00

Containers Supplied:

004

**Sample ID: 2109187-05** Water **Sampled: 09/08/2021 12:05** **Sample Name: MW-14**

Radium, Total 226 &amp; 228 by EPA 903.1 &amp; 9C 09/17/2021 10/06/2021 12:05

005

*Smah Jomeh* 9/13/21 1630  
Released By Date

*UPS*  
Released By Date

Released By Date

Released By Date

Released By Date

*UPS* 9/13/21 1630  
Received By Date  
*[Signature]* 9/16/21 1010  
Received By Date 1030 TAG 9/20/21

Received By Date

Received By Date

Received By Date



**WO# : 30441480**

PM: CAF

Due Date: 09/23/21

CLIENT: MICROMETHOD

**HODS  
INC.****SUBCONTRACT  
ORDER**  
(Continued)**Work Order: 2109187 (Continued)**

Analysis	Due	Expires	Comments
----------	-----	---------	----------

*Containers Supplied:***Sample ID: 2109187-06** Water Sampled: 09/08/2021 12:35 Sample Name: Field Blank

Radium, Total 226 &amp; 228 by EPA 903.1 &amp; 9C 09/17/2021 10/06/2021 12:35

*Containers Supplied:*

006

**Sample ID: 2109187-07** Water Sampled: 09/08/2021 00:00 Sample Name: Duplicate

Radium, Total 226 &amp; 228 by EPA 903.1 &amp; 9C 09/17/2021 10/06/2021 00:00

*Containers Supplied:*

007

**Sample ID: 2109187-08** Water Sampled: 09/08/2021 10:38 Sample Name: MW-12

Radium, Total 226 &amp; 228 by EPA 903.1 &amp; 9C 09/17/2021 10/06/2021 10:38

*Containers Supplied:*

008

**Sample ID: 2109187-09** Water Sampled: 09/08/2021 12:50 Sample Name: CCR-2

Radium, Total 226 &amp; 228 by EPA 903.1 &amp; 9C 09/17/2021 10/06/2021 12:50

*Containers Supplied:*

009

**Sample ID: 2109187-10** Water Sampled: 09/08/2021 08:38 Sample Name: CCR-3

Radium, Total 226 &amp; 228 by EPA 903.1 &amp; 9C 09/17/2021 10/06/2021 08:38

*Containers Supplied:*

010

**Sample ID: 2109187-11** Water Sampled: 09/08/2021 14:00 Sample Name: CCR-4

Radium, Total 226 &amp; 228 by EPA 903.1 &amp; 9C 09/17/2021 10/06/2021 14:00

*Containers Supplied:*

011

**Sample ID: 2109187-12** Water Sampled: 09/08/2021 08:27 Sample Name: CCR-5

0

Imah Jomeh 9/13/21 1030

Released By

Date

UPS 9/13/21 1030

Received By

Date

UPS

Released By

Date

Def. Lute 9/16/21 1010

Received By

Date

Released By

Date

Received By

Date

Released By

Date

Received By

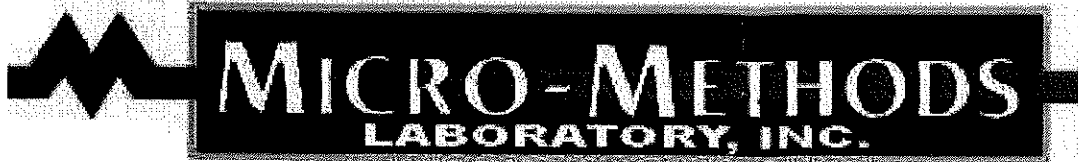
Date

Released By

Date

Received By

Date



**SUBCONTRACT  
ORDER**  
(Continued)

**Work Order: 2109187 (Continued)**

Analysis	Due	Expires	Comments
----------	-----	---------	----------

**Sample ID: 2109187-12**   *Water*   **Sampled: 09/08/2021 08:27**   **Sample Name: CCR-5**

Radium, Total 226 & 228 by EPA 903.1 & 90   09/17/2021   10/06/2021 08:27

Containers Supplied:

012

**WO# : 30441480**

PM: CAF

Due Date: 09/23/21

CLIENT: MICROMETHOD

*Sarah Jorjeh*   *9/13/21 1030*  
Released By   Date

*UPS*  
Released By   Date

Released By   Date

Released By   Date

Released By   Date

*UPS*   *9/13/21 1030*  
Received By   Date

*[Signature]*   *9/14/21 1010*  
Received By   Date

Received By   Date

Received By   Date

Received By   Date

## Pittsburgh Lab Sample Condition Upon Receipt

Client Name: Micro-Methods Project # \_\_\_\_\_Courier: ☐ Fed Ex ☒ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other \_\_\_\_\_Tracking #: 1Z 3S3 063 03 6663 0177
 Label JAG  
 LIMS Login ml
Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☒ noThermometer Used \_\_\_\_\_ Type of Ice: Wet Blue None

Cooler Temperature \_\_\_\_\_ Observed Temp \_\_\_\_\_ °C Correction Factor: \_\_\_\_\_ °C Final Temp: \_\_\_\_\_ °C

Temp should be above freezing to 6°C

Comments:			Yes	No	N/A	pH paper Lot# <u>10D0411</u>	Date and Initials of person examining contents: <u>JAG 9/20/21</u>	
Chain of Custody Present:			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.		
Chain of Custody Filled Out:			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2.	<u>No preservative listed</u>	
Chain of Custody Relinquished:			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.		
Sampler Name & Signature on COC:			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4.	<u>No name or signature</u>	
Sample Labels match COC:			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.		
-Includes date/time/ID Matrix: <u>WT</u>								
Samples Arrived within Hold Time:			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.		
Short Hold Time Analysis (<72hr remaining):			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7.		
Rush Turn Around Time Requested:			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8.		
Sufficient Volume: <u>JAG 4/6/21</u>			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.	<u>MW-9 + Field blank - 1 bottle of each</u>	
Correct Containers Used:			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.	<u>Shipped with no lids/dry.</u>	
-Pace Containers Used:			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Containers Intact:			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	11.	<u>MW-9 + Field blank - 1 bottle of each</u>	
Orthophosphate field filtered			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	12.	<u>Shipped with no lids/dry.</u>	
Hex Cr Aqueous sample field filtered			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	13.		
Organic Samples checked for dechlorination:			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	14.		
Filtered volume received for Dissolved tests			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	15.		
All containers have been checked for preservation.			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16.		
exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix								
All containers meet method preservation requirements.			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed <u>JAG</u>	Date/time of preservation	
						Lot # of added preservative		
Headspace in VOA Vials (>6mm):			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	17.		
Trip Blank Present:			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	18.		
Trip Blank Custody Seals Present			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Rad Samples Screened < 0.5 mrem/hr			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed: <u>JAG</u>	Date: <u>9/20/21</u>	Survey Meter SN: <u>1563</u>

## Client Notification/ Resolution:

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Contacted By: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

☐ A check in this box indicates that additional information has been stored in ereports.

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

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

 PM: CAF  
 CLIENT: MICROMETHOD  
 Due Date: 09/23/21

MO#: 30441480

## **APPENDIX C**

### FIELD SAMPLING DATA





Well Casing Volumes (gal/ft)			
1" = 0.041	1 1/2" = 0.10	2" = 0.16	2 1/2" = 0.24
3" = 0.37	3 1/2" = 0.50	4" = 0.65	6" = 1.46
8" = 2.61	10" = 4.08	12" = 5.87	

PH, Conductivity, & Temp were all in line  
there was color to samples not allowing turbidity  
to line up.



Well Casing Volumes (gal/ft)			
1" = 0.041	1 1/2" = 0.10	2" = 0.16	2 1/2" = 0.24
3" = 0.37	3 1/2" = 0.50	4" = 0.65	6" = 1.46
8" = 2.61	10" = 4.08	12" = 5.87	

Well Casing Volumes (gal/ft)			
1" = 0.041	1 1/2" = 0.10	2" = 0.16	2 1/2" = 0.24
3" = 0.37	3 1/2" = 0.50	4" = 0.65	6" = 1.46
8" = 2.61	10" = 4.08	12" = 5.87	

#REF!

Well Casing Volumes (gal/ft)			
1" = 0.041	1 1/2" = 0.10	2" = 0.16	2 1/2" = 0.24
3" = 0.37	3 1/2" = 0.50	4" = 0.65	6" = 1.46
8" = 2.61	10" = 4.08	12" = 5.87	

Duplicate taken here.

#REF!

Monitor Well: CCR-2  
Date: 5/26/2021

**Water Column Height:** 30.93 ft  
(Measured Well Depth - Static Water Level)

**TOC Elevation:** 542.50 ft  
**GW Elevation:** ~~494.45~~ ft  
 (TOC Elevation - Static Water Level)  
**Well Volume:** 23.69 gal  
 (Water Column Height x Well Casing Volume Factor)

Sample Time: 12:05  
 Sample Analyzed for: Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Fluoride, Lead, Lithium, Mercury, Molybdenum, Selenium, Thallium, Radium 226/228

**Sampler Signature:**

If possible, total drawdown will not exceed 0.33 ft.  
**If drawdown exceeds 10% of water column height**, flow will be stopped and well allowed to recover.

Well Casing Volumes (gal/ft)			
1" = 0.041	1 1/2" = 0.10	2" = 0.16	2 1/2" = 0.24
3" = 0.37	3 1/2" = 0.50	4" = 0.65	6" = 1.46
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Well Casing Volumes (gal/ft)			
1" = 0.041	1 1/2" = 0.10	2" = 0.16	2 1/2" = 0.24
3" = 0.37	3 1/2" = 0.50	4" = 0.65	6" = 1.46
8" = 2.61	10" = 4.08	12" = 5.87	



Monitor Well: CCR-4  
Date: 5/26/21

Date: 5/26/21

**Water Column Height:** 27.9 ft  
(Measured Well Depth - Static Water Level)

**TOC Elevation:** 505.68 ft

**GW Elevation:** 479.9 ft

(TOC Elevation - Static Water Level)

**Well Volume:** 18.135 gal  
(Water Column Height x Well Casing Volume Factor)

Sample Time: 8:26  
 Sample Analyzed for: Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Fluoride, Lead, Lithium, Mercury, Molybdenum, Selenium, Thallium, Radium 226/228

Total Drawdown (ft): 1 ft  
Drawdown/Water Column (%): 3.58%

  
 Sampler Signature:

Final Depth 26.1 ft

**If drawdown exceeds 10% of water column height**, flow will be stopped and well allowed to recover.

Well Stabilization	
pH:	0.1 standard units
conductivity:	within 3%
temperature:	0.1 deg. C
turbidity:	<5 NTU or 10%

Well Casing Volumes (gal/ft)			
1" = 0.041	1 1/2" = 0.10	2" = 0.16	2 1/2" = 0.24
3" = 0.37	3 1/2" = 0.50	4" = 0.65	6" = 1.46
8" = 2.61	10" = 4.08	12" = 5.87	

Monitor Well: CCR-5  
Date: 5-26-21

Date: 5-26-21

**Water Column Height:** 26.84 ft  
(Measured Well Depth - Static Water Level)

**TOC Elevation:** 470.46 ft

GW Elevation: 462.75 ft

(TOC Elevation - Static Water Level)

**Well Volume:** 17.48 gal  
(Water Column Height x Well Casing Volume Factor)

Sample Time: 08:45

Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Fluoride, Lead, Lithium, Mercury, Molybdenum, Selenium, Thallium, Radium 226/228

**Drawdown/Water Column (%):**

**Sampler Signature:**

If possible, total drawdown will not exceed 0.33 ft.

**If drawdown exceeds 10% of water column height**, flow will be stopped and well allowed to recover.

Well Stabilization	
pH:	0.1 standard units
conductivity:	within 3%
temperature:	0.1 deg. C
turbidity:	<5 NTU or 10%

Well Casing Volumes (gal/ft)			
1" = 0.041	1 1/2" = 0.10	2" = 0.16	2 1/2" = 0.24
3" = 0.37	3 1/2" = 0.50	4" = 0.65	6" = 1.46
8" = 2.61	10" = 4.08	12" = 5.87	

\* Lots of iron or orange tint in collected ground water.

## CHOCTAW GENERATION AMU MONITOR WELLS

**Monitor Well:** MW-7

**Well Diameter:** 4 inches

Date: 5-26-21

**Water Column Height:** 22.20 ft  
(Measured Well Depth - Static Water Level)

**Sampling Method:** Pumped

**TOC Elevation:** 571.76 ft

**Measured Well Depth:** 56.92 ft

GW Elevation: 537.56 ft

**Static Water Level:** 34.20ft  
(Depth to Water)

(TOC Elevation - Static Water Level)

**Maximum Drawdown Depth** 36.42 ft  
(10% of WCH + SWL)

**Well Volume:** 14.76 gal  
(Water Column Height x Well Casing Volume Factor)

[illegible]

**Sample Time:**

**Sample Analyzed for:**

Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Fluoride, Lead, Lithium, Mercury, Molybdenum, Selenium, Thallium, Radium 226/228

**Total Drawdown (ft):**

**Drawdown/Water Column (%):**

**Sampler Signature:**

If possible, total drawdown will not exceed 0.33 ft.

***If drawdown exceeds 10% of water column height, flow will be stopped and well allowed to recover.***

Well Stabilization	
pH:	0.1 standard units
conductivity:	within 3%
temperature:	0.1 deg. C
turbidity:	<5 NTU or 10%

Well Casing Volumes (gal/ft)			
1" = 0.041	1 1/2" = 0.10	2" = 0.16	2 1/2" = 0.24
3" = 0.37	3 1/2" = 0.50	4" = 0.65	6" = 1.46
8" = 2.61	10" = 4.08	12" = 5.87	

$$12'' = 5.87$$

Final Depth: 9.5 ft

Well Casing Volumes (gal/ft)			
1" = 0.041	1 1/2" = 0.10	2" = 0.16	2 1/2" = 0.24
3" = 0.37	3 1/2" = 0.50	4" = 0.65	6" = 1.46
8" = 2.61	10" = 4.08	12" = 5.87	

Final Depth: 8.05 ft

Well Casing Volumes (gal/ft)			
1" = 0.041	1 1/2" = 0.10	2" = 0.16	2 1/2" = 0.24
3" = 0.37	3 1/2" = 0.50	4" = 0.65	6" = 1.46
8" = 2.61	10" = 4.08	12" = 5.87	

Duplicate taken here.

Well Casing Volumes (gal/ft)			
1" = 0.041	1 1/2" = 0.10	2" = 0.16	2 1/2" = 0.24
3" = 0.37	3 1/2" = 0.50	4" = 0.65	6" = 1.46
8" = 2.61	10" = 4.08	12" = 5.87	



Monitor Well: CCR-2  
Date: 9/8/21

Date: 9/8/21

**Water Column Height:** 3.35 ft  
(Measured Well Depth - Static Water Level)

**Well Volume:** 23.63 gal  
(Water Column Height x Well Casing Volume Factor)

Sample Time: 12.50  
Sample Analyzed for: Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Fluoride, Lead, Lithium, Mercury, Molybdenum, Selenium, Thallium, Radium 226/228

CCB  
Sampler Signature:

Final Depth : 49.58

If possible, total drawdown will not exceed 0.33 ft.  
**If drawdown exceeds 10% of water column height**, flow will be stopped and well allowed to recover.

Well Stabilization	
pH:	0.1 standard units
conductivity:	within 3%
temperature:	0.1 deg. C
turbidity:	<5 NTU or 10%

Well Casing Volumes (gal/ft)			
1" = 0.041	1 1/2" = 0.10	2" = 0.16	2 1/2" = 0.24
3" = 0.37	3 1/2" = 0.50	4" = 0.65	6" = 1.46
8" = 2.61	10" = 4.08	12" = 5.87	

## CHOCTAW GENERATION AMU MONITOR WELLS

Monitor Well: CCR-3

Date: 9/8/21

**Sampling Method:** Pumped

Measured Well Depth: 53 ft

**Static Water Level:**  
(Depth to Water)

**Maximum Drawdown Depth** 27.98' ft  
(10% of WCH + SWL)

**Well Diameter:** 4 inches

**Water Column Height:** 27.8 ft  
(Measured Well Depth - Static Water Level)

**TOC Elevation:** 504.78 ft

**GW Elevation:** 479.58ft  
(TOC Elevation - Static Water Level)

**Well Volume:** 18.07 gal  
(Water Column Height x Well Casing Volume Factor)

### Start Pump

[illegible]

Sample Time: 08:38

**Sample Analyzed for:**

**Total Drawdown (ft):**

**Drawdown/Water Column (%):**

**Sampler Signature:**

If possible, total drawdown will not exceed 0.33 ft.

*If drawdown exceeds 10% of water column height, flow will be stopped and well allowed to recover.*

Well Stabilization	
pH:	0.1 standard units
conductivity:	within 3%
temperature:	0.1 deg. C
turbidity:	<5 NTU or 10%

Well Casing Volumes (gal/ft)			
1" = 0.041	1 1/2" = 0.10	2" = 0.16	
3" = 0.37	3 1/2" = 0.50	4" = 0.65	2 1/2" = 0.24
8" = 2.61	10" = 4.08	12" = 5.87	6" = 1.46

Monitor Well: CCR-4

**Well Diameter:** 4 inches

Date: 9/8/21

**Water Column Height:** 28.15 ft  
(Measured Well Depth - Static Water Level)

**Sampling Method:** Pumped

**Measured Well Depth:** 53 ft

Static Water Level: 24.85 ft

(Depth to Water) 23.1

Maximum Drawdown Depth 27.67 ft

(10% of WCH + SWL)

**TOC Elevation:** 505.68 ft

GW Elevation: 480.83 ft

(TOC Elevation - Static Water Level)

Well Volume: 18.30 gal

(Water Column Height x Well Casing Volume Factor)

### Start Pump

[illegible]**Sample Time:**

**Sample Analyzed for:**

Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Fluoride, Lead, Lithium, Mercury, Molybdenum, Selenium, Thallium, Radium 226/228

**Total Drawdown (ft):**

**Drawdown/Water Column (%):**

**Sampler Signature:**

Final Depth 26.2 ft

If possible, total drawdown will not exceed 0.33 ft.

***If drawdown exceeds 10% of water column height, flow will be stopped and well allowed to recover.***

Well Stabilization	
pH:	0.1 standard units
conductivity:	within 3%
temperature:	0.1 deg. C
turbidity:	<5 NTU or 10%

Well Casing Volumes (gal/ft)			
1" = 0.041	1 1/2" = 0.10	2" = 0.16	2 1/2" = 0.24
3" = 0.37	3 1/2" = 0.50	4" = 0.65	6" = 1.46
8" = 2.61	10" = 4.08	12" = 5.87	

Well Casing Volumes (gal/ft)			
1" = 0.041	1 1/2" = 0.10	2" = 0.16	2 1/2" = 0.24
3" = 0.37	3 1/2" = 0.50	4" = 0.65	6" = 1.46
8" = 2.61	10" = 4.08	12" = 5.87	

Monitor Well: MW-7

Date: 09 08 21

**Water Column Height:** 22.0 ft  
(Measured Well Depth - Static Water Level)

(Depth to Water)

(10% of WCH + SWL)

~~37.12~~ ft KAS  
37.12

(TOC Elevation - Static Water Level)

(Water Column Height x Well Casing Volume Factor)

[illegible]

**Sample Analyzed for:**

Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Fluoride, Lead, Lithium, Mercury, Molybdenum, Selenium, Thallium, Radium 226/228

**Drawdown/Water Column (%):**

**Sampler Signature:**

If possible, total drawdown will not exceed 0.33 ft.

**If drawdown exceeds 10% of water column height, flow will be stopped and well allowed to recover.**

Well Stabilization	
pH:	0.1 standard units
conductivity:	within 3%
temperature:	0.1 deg. C
turbidity:	<5 NTU or 10%

Well Casing Volumes (gal/ft)			
1" = 0.041	1 1/2" = 0.10	2" = 0.16	2 1/2" = 0.24
3" = 0.37	3 1/2" = 0.50	4" = 0.85	6" = 1.46
8" = 2.61	10" = 4.08	12" = 5.87	





Well Casing Volumes (gal/ft)			
1" = 0.041	1 1/2" = 0.10	2" = 0.16	2 1/2" = 0.24
3" = 0.37	3 1/2" = 0.50	4" = 0.65	6" = 1.46
8" = 2.61	10" = 4.08	12" = 5.87	



Well Casing Volumes (gal/ft)			
1" = 0.041	1 1/2" = 0.10	2" = 0.16	2 1/2" = 0.24
3" = 0.37	3 1/2" = 0.50	4" = 0.65	6" = 1.46
8" = 2.61	10" = 4.08	12" = 5.87	

Well Casing Volumes (gal/ft)			
1" = 0.041	1 1/2" = 0.10	2" = 0.16	2 1/2" = 0.24
3" = 0.37	3 1/2" = 0.50	4" = 0.65	6" = 1.46
8" = 2.61	10" = 4.08	12" = 5.87	

## **APPENDIX D**

### **2021 GROUNDWATER MONITORING SUMMARY**

## Choctaw Generation CCR Groundwater Results for Calendar Year 2021

### Detection and Assessment Monitoring Results:

	Detected
	Detected above Prediction Limit
	Detected above Prediction Limit and Groundwater Protection Standard (GWPS)
NS = Not Sampled	

### Antimony (Sb) Monitoring Results (mg/L)

Monitoring Well										
Date	CCR-2	CCR-3	CCR-4	CCR-5	MW-7	MW-9	MW-12	MW-13	MW-14	OW-2
	Down	Down	Down	Down/ Boundary	Up	Down	Down	Up	Up	Down
3/15-16/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/26/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9/8/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Prediction Limit = 0.002, GWPS = 0.006										

### Arsenic (As) Monitoring Results (mg/L)

Monitoring Well										
Date	CCR-2	CCR-3	CCR-4	CCR-5	MW-7	MW-9	MW-12	MW-13	MW-14	OW-2
	Down	Down	Down	Down/ Boundary	Up	Down	Down	Up	Up	Down
3/15-16/21	ND	ND	ND	0.00316	ND	ND	ND	ND	ND	ND
5/26/21	ND	ND	ND	0.00284	ND	ND	ND	ND	ND	ND
9/8/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Prediction Limit = 0.002, GWPS = 0.010										

### Barium (Ba) Monitoring Results (mg/L)

Monitoring Well										
Date	CCR-2	CCR-3	CCR-4	CCR-5	MW-7	MW-9	MW-12	MW-13	MW-14	OW-2
	Down	Down	Down	Down/ Boundary	Up	Down	Down	Up	Up	Down
3/15-16/21	0.11	0.0840	0.17	0.038	0.076	0.094	0.233	0.161	0.012	0.047
5/26/21	0.111	0.072	0.156	0.036	0.073	0.090	0.210	0.173	0.013	0.058
9/8/21	0.094	0.0640	0.13	0.044	0.082	0.084	0.174	0.159	0.011	0.046
Prediction Limit = 0.2558, GWPS = 2										

### Beryllium (Be) Monitoring Results (mg/L)

Monitoring Well										
Date	CCR-2	CCR-3	CCR-4	CCR-5	MW-7	MW-9	MW-12	MW-13	MW-14	OW-2
	Down	Down	Down	Down/ Boundary	Up	Down	Down	Up	Up	Down
3/15-16/21	ND	ND	ND	ND	ND	0.00594	ND	ND	ND	ND
5/26/21	ND	ND	ND	ND	ND	0.00491	ND	ND	ND	ND
9/8/21	ND	ND	ND	ND	ND	0.00374	ND	ND	ND	ND
Prediction Limit = 0.001, GWPS = 0.004										

### Boron (B) Monitoring Results (mg/L)

Monitoring Well										
Date	CCR-2	CCR-3	CCR-4	CCR-5	MW-7	MW-9	MW-12	MW-13	MW-14	OW-2
	Down	Down	Down	Down/ Boundary	Up	Down	Down	Up	Up	Down
3/15-16/21	ND	ND	ND	0.089	ND	ND	ND	ND	ND	ND
5/26/21	ND	ND	ND	0.091	ND	ND	ND	ND	ND	ND
9/8/21	ND	ND	ND	0.102	ND	ND	ND	ND	ND	ND
Prediction Limit = 0.050										

(1) Appendix III constituent not required to be monitored during initial assessment monitoring event.

(2) Appendix III constituent not required to be monitored during the annual assessment monitoring event.

### Choctaw Generation CCR Groundwater Results for Calendar Year 2021

### Calcium (Ca) Monitoring Results (mg/L)

Monitoring Well										
Date	CCR-2	CCR-3	CCR-4	CCR-5	MW-7	MW-9	MW-12	MW-13	MW-14	OW-2
	Down	Down	Down	Down/ Boundary	Up	Down	Down	Up	Up	Down
3/15-16/21	13.8	39.9	25.3	161	31.7	61.2	29.4	18.1	0.571	30.8
5/26/21	14	37.1	24.5	112	32	61.7	32.1	20	0.643	33.5
9/8/21	11.3	30	20	101	34.3	50.9	24.6	17.5	0.504	29.5
Prediction Limit = 85.8879										

(1) Appendix III constituent not required to be monitored during initial assessment monitoring event.

(2) Appendix III constituent not required to be monitored during the annual assessment monitoring event.

### Cadmium (Cd) Monitoring Results (mg/L)

Monitoring Well										
Date	CCR-2	CCR-3	CCR-4	CCR-5	MW-7	MW-9	MW-12	MW-13	MW-14	OW-2
	Down	Down	Down	Down	Up	Down	Down	Up	Up	Down
3/15-16/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/26/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9/8/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Prediction Limit = 0.001, GWPS = 0.005										

(1) Appendix IV constituent not required to be monitored during detection monitoring.

### Chloride (Cl) Monitoring Results (mg/L)

Monitoring Well										
Date	CCR-2	CCR-3	CCR-4	CCR-5	MW-7	MW-9	MW-12	MW-13	MW-14	OW-2
	Down	Down	Down	Down/ Boundary	Up	Down	Down	Up	Up	Down
3/15-16/21	8.29	4.53	7.73	6.87	3.04	466	56.4	3.73	18.6	43.5
5/26/21	-	-	-	-	-	-	-	-	-	-
9/8/21	2.72	5	7.79	6.54	3.61	410	10.7	3.89	22.4	62.1
Prediction Limit = 26.6034										

(1) Appendix III constituent not required to be monitored during initial assessment monitoring event.

(2) Appendix III constituent not required to be monitored during the annual assessment monitoring event.

### Chromium (Cr) Monitoring Results (mg/L)

Monitoring Well										
Date	CCR-2	CCR-3	CCR-4	CCR-5	MW-7	MW-9	MW-12	MW-13	MW-14	OW-2
	Down	Down	Down	Down/ Boundary	Up	Down	Down	Up	Up	Down
3/15-16/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/26/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9/8/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Prediction Limit = 0.001, GWPS = 0.1										

### Cobalt (Co) Monitoring Results (mg/L)

Monitoring Well										
Date	CCR-2	CCR-3	CCR-4	CCR-5	MW-7	MW-9	MW-12	MW-13	MW-14	OW-2
	Down	Down	Down	Down/ Boundary	Up	Down	Down	Up	Up	Down
3/15-16/21	ND	0.0138	0.0043	0.0299	ND	0.0237	0.00929	ND	ND	ND
5/26/21	ND	0.0163	0.00233	0.0117	ND	0.0209	0.022	ND	ND	ND
9/8/21	ND	0.0206	0.00369	0.0105	ND	0.0181	0.00665	ND	ND	ND
Prediction Limit = 0.001, GWPS = 0.006										

### Choctaw Generation CCR Groundwater Results for Calendar Year 2021

### Fluoride (F) Monitoring Results (mg/L)

Monitoring Well										
Date	CCR-2	CCR-3	CCR-4	CCR-5	MW-7	MW-9	MW-12	MW-13	MW-14	OW-2
	Down	Down	Down	Down/ Boundary	Up	Down	Down	Up	Up	Down
3/15-16/21	ND	ND	ND	ND	0.23	0.51	ND	ND	ND	0.26
5/26/21	ND	0.22	ND	ND	0.22	0.51	ND	ND	ND	0.23
9/8/21	ND	0.24	ND	ND	ND	0.41	ND	ND	ND	0.25
Prediction Limit = 0.30, GWPS = 4.0										

### Lead (Pb) Monitoring Results (mg/L)

Monitoring Well										
Date	CCR-2	CCR-3	CCR-4	CCR-5	MW-7	MW-9	MW-12	MW-13	MW-14	OW-2
	Down	Down	Down	Down/ Boundary	Up	Down	Down	Up	Up	Down
3/15-16/21	ND	ND	ND	ND	ND	0.00191	ND	ND	ND	ND
5/26/21	ND	ND	ND	ND	ND	0.00111	ND	ND	ND	ND
9/8/21	ND	ND	ND	ND	ND	0.00123	ND	ND	ND	ND
Prediction Limit = 0.001, GWPS = 0.015										

### Lithium (Li) Monitoring Results (mg/L)

Monitoring Well										
Date	CCR-2	CCR-3	CCR-4	CCR-5	MW-7	MW-9	MW-12	MW-13	MW-14	OW-2
	Down	Down	Down	Down/ Boundary	Up	Down	Down	Up	Up	Down
3/15-16/21	ND	0.072	ND	0.097	ND	0.051	ND	ND	ND	ND
5/26/21	ND	0.107	ND	ND	ND	0.075	ND	ND	ND	ND
9/8/21	ND	0.104	ND	0.07	ND	0.087	ND	ND	ND	0.046
Prediction Limit = 0.050, GWPS = 0.050										

### Mercury (Hg) Monitoring Results (mg/L)

Monitoring Well										
Date	CCR-2	CCR-3	CCR-4	CCR-5	MW-7	MW-9	MW-12	MW-13	MW-14	OW-2
	Down	Down	Down	Down/ Boundary	Up	Down	Down	Up	Up	Down
3/15-16/21	-	-	-	-	-	-	-	-	-	-
5/26/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9/8/21	-	-	-	-	-	-	-	-	-	-
Prediction Limit = 0.002, GWPS = 0.002										

(1) Appendix IV constituent not required to be monitored during detection monitoring.

(2) Constituent not previously detected; therefore, not included in further assessment monitoring.

### Molybdenum (Mo) Monitoring Results (mg/L)

Monitoring Well										
Date	CCR-2	CCR-3	CCR-4	CCR-5	MW-7	MW-9	MW-12	MW-13	MW-14	OW-2
	Down	Down	Down	Down/ Boundary	Up	Down	Down	Up	Up	Down
3/15-16/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/26/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9/8/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Prediction Limit = 0.001, GWPS =0.100										

### Choctaw Generation CCR Groundwater Results for Calendar Year 2021

### Selenium (Se) Monitoring Results (mg/L)

Monitoring Well										
Date	CCR-2	CCR-3	CCR-4	CCR-5	MW-7	MW-9	MW-12	MW-13	MW-14	OW-2
	Down	Down	Down	Down/ Boundary	Up	Down	Down	Up	Up	Down
3/15-16/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5/26/21	ND	ND	ND	0.00806	ND	0.00453	ND	ND	ND	ND
9/8/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Prediction Limit = 0.001, GWPS = 0.05										

### Sulfate (SO4) Monitoring Results (mg/L)

Monitoring Well										
Date	CCR-2	CCR-3	CCR-4	CCR-5	MW-7	MW-9	MW-12	MW-13	MW-14	OW-2
	Down	Down	Down	Down/ Boundary	Up	Down	Down	Up	Up	Down
3/15-16/21	15.5	261	31.5	1290	36.6	164	79.6	5.14	10.2	118
5/26/21	-	-	-	-	-	-	-	-	-	-
9/8/21	15.7	292	33.9	612	51.1	ND	11.1	ND	7.82	122
Prediction Limit = 44.8102										

- (1) Appendix III constituent not required to be monitored during initial assessment monitoring event.
- (2) Appendix III constituent not required to be monitored during the annual assessment monitoring event.

### Thallium (Tl) Monitoring Results (mg/L)

Monitoring Well										
Date	CCR-2	CCR-3	CCR-4	CCR-5	MW-7	MW-9	MW-12	MW-13	MW-14	OW-2
	Down	Down	Down	Down/ Boundary	Up	Down	Down	Up	Up	Down
3/15-16/21	-	-	-	-	-	-	-	-	-	-
5/26/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9/8/21	-	-	-	-	-	-	-	-	-	-
Prediction Limit = 0.001, GWPS = 0.002										

- (1) Appendix IV constituent not required to be monitored during detection monitoring.
- (2) Constituent not previously detected; therefore, not included in further assessment monitoring.

### Total Dissolved Solids (TDS) Monitoring Results (mg/L)

Monitoring Well										
Date	CCR-2	CCR-3	CCR-4	CCR-5	MW-7	MW-9	MW-12	MW-13	MW-14	OW-2
	Down	Down	Down	Down/ Boundary	Up	Down	Down	Up	Up	Down
3/15-16/21	143	465	208	1362	186	1202	285	168	82	347
5/26/21	-	-	-	-	-	-	-	-	-	-
9/8/21	109	436	196	834	140	913	253	138	78	297
Prediction Limit = 320.8384										

### pH Monitoring Results (S.U.)

Monitoring Well										
Date	CCR-2	CCR-3	CCR-4	CCR-5	MW-7	MW-9	MW-12	MW-13	MW-14	OW-2
	Down	Down	Down	Down/ Boundary	Up	Down	Down	Up	Up	Down
3/15-16/21	7.38	6.81	6.32	6.17	6.34	4.78	6.53	6.73	4.96	6.71
5/26/21	7.21	6.57	7.17	6.64	6.59	5.05	6.3	6.87	4.82	6.36
9/8/21	6.52	6.1	6.37	6.6	6.51	4.56	6	6.71	4.8	5.71
Prediction Limit = 3.77 – 9.97										

**Choctaw Generation CCR Groundwater Results for Calendar Year 2021**

**Radium 226 and 228 Combined (Ra) Monitoring Results (pCi/L) <sup>(1)</sup>**

Monitoring Well										
Date	CCR-2	CCR-3	CCR-4	CCR-5	MW-7	MW-9	MW-12	MW-13	MW-14	OW-2
	Down	Down	Down	Down/ Boundary	Up	Down	Down	Up	Up	Down
3/15-16/21	2.454	2.562	1.915	1.696	1.431	1.68	2.12	2.016	1.773	1.037
5/26/21	2.083	2.235	1.961	2.05	1.967	2.18	2.08	1.994	1.944	2.277
9/8/21	1.452	1.452	1.452	1.257	1.295	1.82	1.698	1.237	1.388	1.165
Prediction Limit = X, GWPS = 5 pCi/L										

(1) Per MS Dept. of Health (BJ Smith) and EPA guidance for drinking water standards, Radium 226/228 Combined is calculated by adding Radium 226 and Radium 228 Activity (Act) concentrations together if they are detected above the MDC; otherwise, the MDC is used.