Texas Commission on Environmental Quality

Waste Permits Division Correspondence Cover Sheet

Date: 10/10/2023
Facility Name: Coleto Creek Power Station
Permit or Registration No.: CCR116

Nature of Correspondence:
☐ Initial/New
☒ Response/Revision to TCEQ Tracking No.: 27262899 (from subject line of TCEQ letter regarding initial submission)

Affix this cover sheet to the front of your submission to the Waste Permits Division. Check appropriate box for type of correspondence. Contact WPD at (512) 239-2335 if you have questions regarding this form.

Table 1 - Municipal Solid Waste Correspondence

Applications	Reports and Notifications
☐ New Notice of Intent	☐ Alternative Daily Cover Report
☐ Notice of Intent Revision	☐ Closure Report
☐ New Permit (including Subchapter T)	☐ Compost Report
☐ New Registration (including Subchapter T)	☐ Groundwater Alternate Source Demonstration
☐ Major Amendment	☐ Groundwater Corrective Action
☐ Minor Amendment	☐ Groundwater Monitoring Report
☐ Limited Scope Major Amendment	☐ Groundwater Background Evaluation
☐ Notice Modification	☐ Landfill Gas Corrective Action
☐ Non-Notice Modification	☐ Landfill Gas Monitoring
☐ Transfer/Name Change Modification	☐ Liner Evaluation Report
☐ Temporary Authorization	☐ Soil Boring Plan
☐ Voluntary Revocation	☐ Special Waste Request
☐ Subchapter T Disturbance Non-Enclosed Structure	☐ Other:
☐ Other:	

Table 2 - Industrial & Hazardous Waste Correspondence

Applications	Reports and Responses
☐ New	☐ Annual/Biennial Site Activity Report
☐ Renewal	☐ CPT Plan/Result
☐ Post-Closure Order	☐ Closure Certification/Report
☐ Major Amendment	☐ Construction Certification/Report
☐ Minor Amendment	☐ CPT Plan/Result
☒ CCR Registration	☐ Extension Request
☐ CCR Registration Major Amendment	☐ Groundwater Monitoring Report
☐ CCR Registration Minor Amendment	☐ Interim Status Change
☐ Class 3 Modification	☐ Interim Status Closure Plan
☐ Class 2 Modification	☐ Soil Core Monitoring Report
☐ Class 1 ED Modification	☐ Treatability Study
☐ Class 1 Modification	☐ Trial Burn Plan/Result
☐ Endorsement	☐ Unsaturated Zone Monitoring Report
☐ Temporary Authorization	☐ Waste Minimization Report
☐ Voluntary Revocation	☐ Other:
☐ 335.6 Notification	
☐ Other:	

Luminant

Renee Collins
Sr. Director
Environmental Services
Renee.collins@luminant.com

Luminant
6555 Sierra Drive.
Irving, TX 75039

T 214.875.8383
C 214.406.2452
F 214.875.8699

Delivered Electronically via IHWPER@tceq.texas.gov

October 10, 2023

Texas Commission on Environmental Quality
Industrial and Hazardous Waste Permits Section - MC-130
12100 Park 35 Circle
Austin, TX 78753

RE: Response to EMAIL NOD New Registration No. CCR116
Coleto Creek Power LLC – Fannin, Goliad County
Industrial Solid Waste Registration No. 31911
EPA Identification No. TXD000836999
Tracking No. 27262899; RN100226919/CN605521988

Coleto Creek Power LLC has prepared written responses for the deficiencies identified in the "Email NOD - New Registration – Coleto Creek Power, LLC – Registration No. CCR116" received via email from TCEQ on July 12, 2023. The written responses are in Table 1 and the attached technical memorandum "Response to TCEQ NOD No. 3". Updated application and appendix revisions are also attached for review.

If you have any questions or require any additional information, please contact Eric Chavers at 903-389-6062 or by e-mail at eric.chavers@luminant.com.

Sincerely,

Renee Collins

Attachments: Technical Memorandum "Response to TCEQ NOD No. 3"
CCR116 Application-Revision 3
CCR116 Application Revision 3 REDLINE
APPENDIX E-Revision 2
APPENDIX F-Revision 2

cc with attachments:

Srinath Venkat (Srinath.venkat@tceq.texas.gov)
Daniella Ortiz de Montellano (daniela.ortiz-demontellano@tceq.texas.gov)

Table 1 - NOD Summary and Response
Registration No. CCR116 - Coleto Creek Power LLC
Application Deficiencies - NOD 3

ID[1]	App. Section	App. Sub Section	Location[2]	Citation	Deficiency Description/Resolution	Response
1	II and VI	Section II.A and VI.27	[APPENDIX B – Location Restrictions and Geology; and Appendix E- Groundwater Hydrogeological Monitoring Plan, Figure 3- Generalized Geologic Cross Section A-A' (October 2017)] 2021 Annual Groundwater Monitoring and Corrective Action Report - Revision 1]	30 TAC 352.601 40 CFR 257.60(a)	1. Provide detailed response and justification to demonstrate compliance with 40 CFR 257.60(a) concerning the placement of the CCR unit above the uppermost aquifer. Based on the information in the location restriction demonstration, Figure 3, and 2020 groundwater monitoring data it appears that the elevation of the base of the CCR unit and the elevation of the top of the uppermost aquifer range overlap within the unit as described below: a) The location restriction demonstration states that elevation of the top of the uppermost aquifer as defined in the rule ranges from approximately 82 feet to 116 feet in elevation. It further states that base of the unit elevations of the surface impoundment appear to range from approximately 101 feet to 135 feet elevation. b) Figure 3 in the Hydrogeologic Monitoring Plan appears to indicate the lowest base of the waste is around 112 feet above MSL, and the groundwater elevation ranges between 111 feet - 105 feet above MSL. Similarly, groundwater elevation from 2021 groundwater monitoring data was also observed to be in the similar range of 111 feet -103 feet. 2. Provide more information to demonstrate that there will not be an intermittent recurring or sustained hydraulic connection between any portion of the base of the CCR unit and the uppermost aquifer due to normal fluctuations in groundwater elevations.	Please see attached Technical Memorandum "Response to TCEQ NOD No. 3 - CCR116 Registration Application", Comment Item No. 1 in Section 2.0. The "Supplemental Geologic and Hydrogeologic Information Report No. 2" has also been updated in Appendix E.
2	VI	27.D	[Appendix E - Groundwater Hydrogeologic Monitoring Plan, 2.2 Hydrogeology Supplemental Geologic and Hydrogeologic Information	30 TAC 352.911 40 CFR 257.91	Provide any available site-specific data for geological Unit 1 and Unit 3 in lieu of the literature data. While hydrogeological information for geologic Unit 2 including slug test results, was included, no site-specific data such as thickness, hydraulic conductivity, porosity, and effective porosity was included for geologic Unit 1 and Unit 3 formation.	Please see attached Technical Memorandum "Response to TCEQ NOD No. 3 - CCR116 Registration Application", Comment Item No. 2 in Section 2.0. The "Supplemental Geologic and Hydrogeologic Information Report No. 2" has also been updated in Appendix E.

3	VI	27.E	[Appendix E Groundwater Hydrogeologic Monitoring Plan]	30 TAC 352.931 40 CFR 257.91(b),(c)	Provide an explanation on how it was determined that the number and spacing of downgradient monitoring wells are adequate to accurately represent the quality of the groundwater and detect potential groundwater contamination at the waste boundary. The distance between the current downgradient wells range between 800 feet-1300 feet.	Please see attached Technical Memorandum "Response to TCEQ NOD No. 3 - CCR116 Registration Application", Comment Item No. 3 in Section 2.0.
4	VI	VI.28	[Appendix E Statistical Analysis Plan Revision No. 1]	30 TAC 352.931 40 CFR 257.93	Provide a detailed evaluation on how background was established addressing the assumptions made, outliers, and distribution of the data, etc. Additionally, please explain how the statistical evaluation was conducted for groundwater data since the establishment of the background values. While a detailed Statistical Analysis Plan has been submitted, the plan did not include how background and GWPSs which are not based on MCL or CCR regulatory limits were calculated. Only Confidence Interval graphs based on 2021 groundwater monitoring Appendix IV parameters have been included.	Please see attached Technical Memorandum "Response to TCEQ NOD No. 3 - CCR116 Registration Application", Comment Item No. 4 in Section 2.0. The "Background Groundwater Monitoring and Statistical Analysis Summary Report" has also been added to Appendix E. The report is also referenced under item VI.28 of the registration application.
5	VI	29.A	Table VI.C.1. [Appendix E] Groundwater Monitoring Plan - Revision 1	30 TAC 352.941 40 CFR 257.94	Table VI.C.1.-Groundwater Detection Monitoring Parameters List Total Dissolved Solids (TDS) value as 766 mg/l and accompanying reports in the application lists the background TDS value as 966 mg/l (2020 and 2021 Groundwater Monitoring Reports). Similarly, Table VI.C.1 lists Cobalt values as 0.499 mg/l and the 2020 Annual Monitoring Report lists the values as 0.0499 mg/l. Provide clarification on the inconsistency of the background values reported for Total Dissolved Solids (TDS) and cobalt reported in Table VI.C.1 and accompanying groundwater reports in the application, and revise application if necessary to address these issues.	Please see attached Technical Memorandum "Response to TCEQ NOD No. 3 - CCR116 Registration Application", Comment Item No. 5 in Section 2.0. The inconsistencies in the noted TDS abd Cobalt values were identified as input errors during development of application. Values in accompanying reports are accurate. Registration application Table VI.C-1 and Table VI.D-2 have been updated.

6	VI	29.A and 30.A	[Appendix E]	40 CFR 257.93 30 TAC 352.931 30 TAC 352.941 40 CFR 257.94 30 TAC 352.951	As mentioned above, submit detailed information about how the site-specific background were established including appropriate method chosen, procedures, assumptions and calculations conducted to address the following: a) Review of the groundwater data indicates that while some of the constituents may be below the site-specific background, some of them exceed the GWPS both in background and downgradient monitoring wells. For example, Arsenic with GWPS of 0.01mg/l is found in background wells BV-5, MW-8, and downgradient wells MW-5, MW-9, MW-10, MW-11. Similarly, molybdenum exceeding the concentration/background limit of 0.10 mg/l in downgradient well MW-10. b) Table VI.C.1 and Table VI.D.2 include detection monitoring and assessment monitoring constituents including site-specific Concentration Limits (CLs). The CL established for some parameters are below or matches the Groundwater Protection Standards (GWPS) or Maximum Contaminant Levels (MCLs), the other parameters appear to have CLs based on site specific background concentration. c) Since site-specific background evaluation report was not submitted, it is not clear whether background established is consistent with the requirements of 40 CFR 257.93. Further, it should also be noted that constituent like Cobalt is showing in most of the background wells but not as prevalent in the downgradient wells, thereby raising issues such as validity and suitability of the statistical method chosen.	Please see attached Technical Memorandum "Response to TCEQ NOD No. 3 - CCR116 Registration Application", Comment Item No. 6 in Section 2.0. The "Background Groundwater Monitoring and Statistical Analysis Summary Report" has also been added to Appendix E. The report is also referenced under Item VI.28 of the registration application.

7	VII	31	[Appendix F]	Application Instructions 30 TAC 352.1221 30 TAC 352.1231 40 CFR 257.102(b) 40 CFR 257.102(d)(3) 40 CFR 257.103(f)(2)	Comment: The application includes alternative closure deadline demonstration submitted to EPA and EPA determination that application is complete and hence tolling the waste receipt deadline for the unit until EPA issues the final decision. Therefore, the closure plan submitted may need to be revised/amended to address following issues once a decision has been made on alternative closure schedule: a) Detailed schedule for completing all the closure activities as required in 40 CFR 257.102(b)(1)(vi). b) Provide the following information addressing in detail how the closure performance standards will be achieved including but not limited to requirements in 40 CFR 257.102(d): i. Specifications, procedures, laboratory methods, and Construction Quality Assurance and Quality Control, etc. ii. Detailed plans, elevation and cross sections, cover system details, etc.	Please see attached Technical Memorandum "Response to TCEQ NOD No. 3 - CCR116 Registration Application", Comment Item No. 7 in Section 2.0. "Closure Plan Addendum No.2" has also been added to Appendix F. The addendum is also referenced under Item VII. of the registration application. As discussed, final design work for final closure has been initiated. The updated final closure plan will be provided to TCEQ when complete and prior to construction start.
8	VII	32	[Appendix F]	30 TAC 352.1241 40 CFR 257.104(d) 40 CFR 257.103(f)(2)	Revise the note in post-closure plan or submit an addendum to post-closure plan to be consistent with the closure addendum which states that the closure will be completed no later than October 17, 2028, pursuant to the alternative closure provision 40 CFR § 257.103(f)(2).	Please see attached Technical Memorandum "Response to TCEQ NOD No. 3 - CCR116 Registration Application", Comment Item No. 8 in Section 2.0. "Post-Closure Plan Addendum No.1" has also been added to Appendix F. The addendum is also referenced under Item VII.32. of the registration application.
9	VII	33	Table VIII.A.1, [Appendix G]	30 TAC 352.1101	Provide justification or supporting documentation on how it was determined that one annual mowing per year will be adequate to maintain the vegetative cover system for the closed unit during post-closure care considering local climate.	Please see attached Technical Memorandum "Response to TCEQ NOD No. 3 - CCR116 Registration Application", Comment Item No. 9 in Section 2.0.

[1] Deficiency ID – Key: Use this numbered ID to identify the NOD response.
[2] Location of deficiency in submittal/application. Items in square brackets [ ] refer to applicant's supplemental information submitted as attachments/appendices to the application form.

TECHNICAL MEMORANDUM

DATE October 6, 2023 **Project No.** 23643-01

TO Eric Chavers
Coleto Creek Power, LLC

FROM Will Vienne, P.G. and Dan Bullock, P.E.
Bullock, Bennett & Associates, LLC

COLETO CREEK POWER, LLC
COLETO CREEK POWER STATION – FANNIN, GOLIAD COUNTY, TEXAS
CCR REGISTRATION NO. CCR116
RESPONSE TO TCEQ NOD NO. 3 ON CCR REGISTRATION APPLICATION

1.0 INTRODUCTION

Coleto Creek Power, LLC operates the Coleto Creek Power Station (Coleto Creek), a coal-fired power plant located in Fannin, Goliad County, Texas. CCRs including fly ash and bottom ash are generated as part of power plant operations. Bottom ash and fly ash have historically been managed/disposed in the Primary Ash Pond (PAP) onsite. Bottom ash is sluiced directly to the PAP form the unit boiler. Fly ash is pneumatically conveyed from the boiler to storage silos where it is loaded into hopper trucks and transported off-site for beneficial re-use.
This technical memorandum provides information to address Texas Commission on Environmental Quality (TCEQ) Notice of Deficiency (NOD) No. 3 on the CCR Registration Application for Coleto Creek, which the TCEQ issued by email on July 11, 2023.

2.0 NOD NO. 3 COMMENTS AND RESPONSES

NOD No. 3 comments and responses are provided in this section.

1. <u>Comment ID No. 1:</u>

1. Provide detailed response and justification to demonstrate compliance with 40 CFR 257.60(a) concerning the placement of the CCR unit above the uppermost aquifer. Based on the information in the location restriction demonstration, Figure 3, and 2020 groundwater monitoring data it appears that the elevation of the base of the CCR unit and the elevation of the top of the uppermost aquifer range overlap within the unit as described below:

a) The location restriction demonstration states that elevation of the top of the uppermost aquifer as defined in the rule ranges from approximately 82 feet to 116

feet in elevation. It further states that base of the unit elevations of the surface impoundment appear to range from approximately 101 feet to 135 feet elevation.

b) *Figure 3 in the Hydrogeologic Monitoring Plan appears to indicate the lowest base of the waste is around 112 feet above MSL, and the groundwater elevation ranges between 111 feet - 105 feet above MSL. Similarly, groundwater elevation from 2021 groundwater monitoring data was also observed to be in the similar range of 111 feet -103 feet.*

2. *Provide more information to demonstrate that there will not be an intermittent recurring or sustained hydraulic connection between any portion of the base of the CCR unit and the uppermost aquifer due to normal fluctuations in groundwater elevations.*

Response: A Supplemental Geologic and Hydrogeologic Information Report is presented in Attachment 1, which provides justification to demonstrate compliance with 40 C.F.R. § 257.60(a) concerning the placement of the CCR unit above the uppermost aquifer, and demonstrates that there will not be an intermittent recurring or sustained hydraulic connection between any portion of the base of the CCR unit and the uppermost aquifer due to normal fluctuations in groundwater elevations.

2. **Comment ID No. 2:** *Provide any available site-specific data for geological Unit 1 and Unit 3 in lieu of the literature data. While hydrogeological information for geologic Unit 2 including slug test results, was included, no site-specific data such as thickness, hydraulic conductivity, porosity, and effective porosity was included for geologic Unit 1 and Unit 3 formation.*

Response: Site-specific data for geological Unit 1 and Unit 3 are provided in the Supplemental Geologic and Hydrogeologic Information Report in Attachment 1.

3. **Comment ID No. 3:** *Provide an explanation on how it was determined that the number and spacing of downgradient monitoring wells are adequate to accurately represent the quality of the groundwater and detect potential groundwater contamination at the waste boundary. The distance between the current downgradient wells range between 800 feet-1300 feet.*

Response: A qualified professional engineer has certified that the CCR groundwater monitoring systems at the Site were designed and constructed to meet the groundwater monitoring system requirements of the *Groundwater Monitoring Systems* section [40 C.F.R § 257.91] of the CCR Rule (BBA, 2017). Supporting information on the development of the PAP groundwater monitoring network is provided in the Supplemental Geologic and Hydrogeologic Information Report in Attachment 1. As described in the report, the TCEQ has reviewed the PAP monitoring well network on several occasions and has approved the monitoring well network as adequate to assess groundwater quality and potential releases from the PAP. The CCR Rule does not specify a required well spacing or number of wells beyond the minimum of one upgradient and three downgradient wells. Based on the extensive hydrogeologic evaluations conducted at the Site, the existing CCR groundwater

monitoring network is adequate to effectively address spatial variability, accurately represent the quality of groundwater, and detect potential groundwater contamination at the Site.

4. **Comment ID No. 4:** *Provide a detailed evaluation on how background was established addressing the assumptions made, outliers, and distribution of the data, etc. Additionally, please explain how the statistical evaluation was conducted for groundwater data since the establishment of the background values. While a detailed Statistical Analysis Plan has been submitted, the plan did not include how background and GWPSs which are not based on MCL or CCR regulatory limits were calculated. Only Confidence Interval graphs based on 2021 groundwater monitoring Appendix IV parameters have been included.*

   Response: The Background Groundwater Monitoring and Statistical Analysis Summary Report for the Coleto Creek PAP is provided in Attachment 2.

5. **Comment ID No. 5:** *Table VI.C.1.-Groundwater Detection Monitoring Parameters List Total Dissolved Solids (TDS) value as 766 mg/l and accompanying reports in the application lists the background TDS value as 966 mg/l (2020 and 2021 Groundwater Monitoring Reports). Similarly, Table VI.C.1 lists Cobalt values as 0.499 mg/l and the 2020 Annual Monitoring Report lists the values as 0.0499 mg/l. Provide clarification on the inconsistency of the background values reported for Total Dissolved Solids (TDS) and cobalt reported in Table VI.C.1 and accompanying groundwater reports in the application, and revise application if necessary to address these issues.*

   Response: The referenced groundwater detection program and groundwater assessment program assessment levels for TDS and cobalt in the 2020 and 2021 Groundwater Monitoring Reports are correct. The values in the referenced application tables have been updated to reflect the correct assessment levels. Please note that all detection and assessment program assessment levels have been rounded to two significant figures to correspond with the number of significant figures the United States Environmental Protection Agency uses for Maximum Contaminant Levels (MCLs).

6. **Comment ID No. 6:** *As mentioned above, submit detailed information about how the site-specific background were established including appropriate method chosen, procedures, assumptions and calculations conducted to address the following:*

   a) *Review of the groundwater data indicates that while some of the constituents may be below the site-specific background, some of them exceed the GWPS both in background and downgradient monitoring wells. For example, Arsenic with GWPS of 0.01 mg/l is found in background wells BV-5, MW-8, and downgradient wells MW-5, MW-9, MW-10, MW-11. Similarly, molybdenum exceeding the concentration/background limit of 0.10 mg/l in downgradient well MW-10.*

   b) *Table VI.C.1 and Table VI.D.2 include detection monitoring and assessment monitoring constituents including site-specific Concentration Limits (CLs). The CL established for some parameters are below or matches the Groundwater Protection Standards (GWPS)*

or Maximum Contaminant Levels (MCLs), the other parameters appear to have CLs based on site specific background concentration.

c) *Since site-specific background evaluation report was not submitted, it is not clear whether background established is consistent with the requirements of 40 CFR 257.93. Further, it should also be noted that constituent like Cobalt is showing in most of the background wells but not as prevalent in the downgradient wells, thereby raising issues such as validity and suitability of the statistical method chosen.*

Response: The Background Groundwater Monitoring and Statistical Analysis Summary Report for the Coleto Creek PAP is provided in Attachment 2.

In accordance with 40 C.F.R. § 257.93(f), the following statistical approach was selected to evaluate groundwater compliance under the CCR Rule:

- Use of interwell data evaluations, which compare new sample data to data from upgradient or background monitoring wells.
- Use of upper prediction limits (UPLs) to develop site-specific background concentrations for all Appendix III and Appendix IV constituents. This approach is a common statistical method used to evaluate groundwater compliance for Subtitle D landfill facilities and is one of the approved options for groundwater quality data statistical evaluations under the CCR Rule.
- After every detection monitoring event, Appendix III constituent concentrations from each compliance well are compared to background UPLs to ascertain if a statistically significant increase above background exists. Background UPLs are based on a 1-of-2 resampling approach, meaning that if one or more constituent concentrations in a compliance well are above their respective baseline concentration, a resample can be collected to validate or invalidate the baseline concentration exceedance.
- If assessment monitoring is required, the 95% lower confidence limit of the mean (LCL) is calculated after each assessment monitoring event for each Appendix IV constituent and compliance well. The data set used to calculate LCLs is based on current and historical constituent concentrations for a compliance well (i.e., constituent concentrations over multiple sampling events). For example, the LCLs for arsenic and molybdenum (the constituents noted in TCEQ Comment ID No. 6) and all other Appendix IV constituents are calculated after each sampling event using the sample data set that includes sample concentrations observed over the entire CCR groundwater monitoring program period (2017 - present). A statistically significant level over the Groundwater Protection Standard (GWPS) has occurred at a CCR unit when the LCL for at least one assessment monitoring constituent at a well is greater than the appropriate GWPS. A well may remain in compliance with the assessment monitoring requirements of the CCR Rule if an individual sample concentration exceeds the GWPS. A statistically significant level over the GWPS is only indicated if the LCL exceeds the GWPS. In

accordance with 40 C.F.R. § 257.95(h), GWPSs are established based on the following criteria:

- For constituents with an established MCL, the GWPS is the higher of the MCL of the background UPL; or
- For constituents with no established MCL (e.g., cobalt, lead, lithium, and molybdenum), the GWPS is the highest of the background UPL, reporting limit, or the United States Environmental Protection Agency (USEPA)-specified regional screening level (RSL) for that constituent.

The statistical procedures used to evaluate groundwater data at the Site conform with the CCR Rule requirements, as well as the Statistical Analysis Plan for the Site (Golder, 2022), the USEPA's *Unified Guidance: Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities* (USEPA, 2009), and the American Society for Testing and Materials (ASTM) standard D6312-17, *Developing Appropriate Statistical Approaches for Groundwater Detection Monitoring Programs at waste Disposal Facilities* (ASTM, 2017).

Details on the statistical evaluation procedures used to evaluate groundwater data at the Site are presented in the Background Groundwater Monitoring and Statistical Analysis Summary Report in Attachment 2.

7. **Comment ID No. 7:** *Comment: The application includes alternative closure deadline demonstration submitted to EPA and EPA determination that application is complete and hence tolling the waste receipt deadline for the unit until EPA issues the final decision. Therefore, the closure plan submitted may need to be revised/amended to address following issues once a decision has been made on alternative closure schedule:*

   a) *Detailed schedule for completing all the closure activities as required in 40 CFR 257.102(b)(1)(vi).*

   b) *Provide the following information addressing in detail how the closure performance standards will be achieved including but not limited to requirements in 40 CFR 257.102(d):*

      i. *Specifications, procedures, laboratory methods, and Construction Quality Assurance and Quality Control, etc.*
      ii. *Detailed plans, elevation and cross sections, cover system details, etc.*

   Response: An addendum to the Closure Plan is provided in Attachment 3.

8. **Comment ID No. 8:** *Revise the note in post-closure plan or submit an addendum to post-closure plan to be consistent with the closure addendum which states that the closure will be completed no later than October 17, 2028, pursuant to the alternative closure provision 40 CFR § 257.103(f)(2).*

Response: An addendum to the Post-Closure Plan, which states that the closure will be completed no later than October 17, 2028, is provided in Attachment 4.

9. **Comment ID No. 9:** *Provide justification or supporting documentation on how it was determined that one annual mowing per year will be adequate to maintain the vegetative cover system for the closed unit during post-closure care considering local climate.*

   Response: The vegetative cover system for the impoundment caps will consist primarily of herbaceous (soft-stemmed) grasses. The primary purpose of mowing a vegetative cover system is to prevent perennial, non-herbaceous (hard-stemmed) species, which can penetrate and damage the cap system, from developing. Mowing once per year is generally sufficient in the region to prevent the growth of these perennial, woody species.

   Turner and Seastedt (1993) found that frequent mowing of tallgrass prairie vegetation limited accumulation of belowground nitrogen reserves and biomass. Frequently mowed or grazed grasses preferentially use their photosynthate (energy acquired from photosynthesis) to replace their lost aboveground biomass (foliage) as opposed to sending this energy to their roots or reproductive systems. This suggests that less frequent mowing of vegetative cover grasses will develop stronger root systems, which will lead to less erosion of cap systems.

3.0 REFERENCES

ASTM, 2017. Standard Guide for Developing Appropriate Statistical Approaches for Groundwater Detection Monitoring Programs at Waste Disposal Facilities - D6312-17.

Barnes, Virgil E., 1998. Geologic Atlas of Texas, Beeville-Bay City Sheet. Sheet. Texas Bureau of Economic Geology. 1975; revised 1987; reprinted 1998.

Bullock, Bennett & Associates, LLC (BBA), 2017. Coleto Creek Primary Ash Pond Monitoring System Certification Letter, Coleto Creek Power Station, Fannin, Texas..

Golder, Coal Combustion Residual Rule Statistical Analysis Plan, Revision No. 1, Coleto Creek Primary Ash Pond.

Turner, C.L. and Seastedt, M.I., 1993. Maximization of Aboveground Grassland Production: The Role of Defoliation Frequency, Intensity, and History. *Ecological Applications*, Journal of the Ecological Society of America, Volume 3, Issue 1, pp. 175-186.

USEPA, 2009. Unified Guidance Document: Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, EPA 530/R-09-007, March.

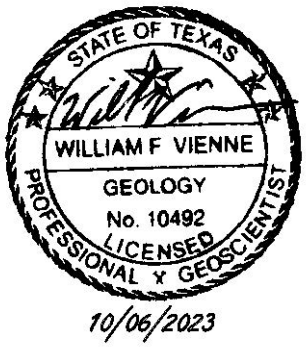
SIGNATURE PAGE

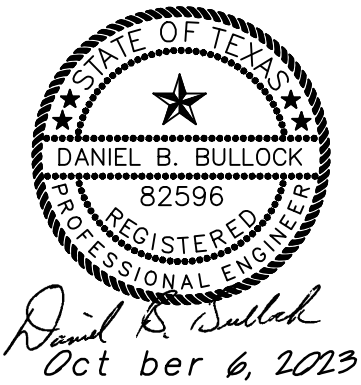
Bullock, Bennett & Associates, LLC

William F. Vienne, P.G. (TX 10492)
Senior Hydrogeologist

Daniel B. Bullock, P.E. (TX 82596)
Principal Engineer

Texas Engineering Firm Registration No. F-8542
Texas Geoscience Firm Registration No. 50127





ATTACHMENTS:

Attachment 1 Supplemental Geologic and Hydrogeologic Information Report

Attachment 2 Background Groundwater Monitoring and Statistical Analysis Summary Report

Attachment 3 Closure Plan Addendum No. 2

Attachment 4 Post-Closure Plan Addendum No. 1

Attachment 1

Supplemental Geologic and Hydrogeologic Information Report

Bullock, Bennett & Associates, LLC

www.bbaengineering.com
165 N. Lampasas St. • Bertram, Texas 78605 • (512) 355-9198

COAL COMBUSTION RESIDUAL RULE SUPPLEMENTAL GEOLOGIC AND HYDROGEOLOGIC INFORMATION REPORT NO. 2

PRIMARY ASH POND
COLETO CREEK POWER STATION
FANNIN, TEXAS

October 6, 2023

Prepared For:

Coleto Creek Power, LLC

Prepared By:

Bullock, Bennett & Associates, LLC
165 N. Lampasas Street
Bertram, Texas 78605

Texas Engineering Firm Registration No. F-8542
Texas Geoscience Firm Registration No. 50127

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

1.0 INTRODUCTION

Coleto Creek Power, LLC operates the Coleto Creek Power Station (Coleto Creek), a coal-fired power plant located in Fannin, Goliad County, Texas (the Site) (Figure 1). Coal Combustion Residuals (CCRs) including fly ash and bottom ash are generated as part of power plant operations. Bottom ash and fly ash have historically been managed/disposed in the Primary Ash Pond (PAP) onsite. Bottom ash is sluiced directly to the PAP from the unit boiler. Fly ash is pneumatically conveyed from the boiler to storage silos where it is loaded into hopper trucks and transported off-site for beneficial re-use. This report provides geologic and hydrogeologic information to supplement the information in the Coleto Creek Groundwater Hydrogeologic Monitoring Plan (BBA, 2017a).

2.0 SITE GEOLOGY AND HYDROGEOLOGY

The Site is located in the outcrop area of the Pleistocene-aged Lissie Formation, which is described in the Geologic Atlas of Texas (Barnes, 1998) as consisting of sand, silt, clay, and minor amounts of gravel. Extensive soil data collected at the Site indicate that the stratigraphy below the PAP is divided into three distinct lithologic units, which are described below in order of increasing depth.

- **Unit 1** – The PAP is built on top of the ground surface of Unit 1 and is enclosed by above-grade dikes that were constructed using Unit 1 material. Sargent and Lundy prepared a PAP design and construction summary report that evaluated soil borings completed in the footprint of the PAP and surrounding areas (S&L, 1978). Based on soil sample descriptions for the soil borings completed at the Site, Unit 1 generally consists of dry to moist, low permeability sandy clay and silty clay with intermittent clayey sand and caliche. Unit 1 is laterally continuous across the Site and ranges from about 10 to 20 feet thick below the PAP. A “Thickness Map of In-Situ Cohesive Soils” (i.e., Unit 1 thickness map) and PAP boring logs from the S&L design and construction summary report, which demonstrate the general characteristics and laterally continuous nature of Unit 1 at the Site, are reproduced in Appendix A. Laboratory permeability tests conducted on geotechnical samples from Unit 1 ranged from 1.3E-08 to 2.8E-07 centimeters per second (cm/s), with a median of 3.8E-08 cm/s (S&L, 1978), which are values consistent with low permeability clay and silty/sandy clay (Dominico and Schwartz, 1990). Based on the low permeabilities and general dry nature of soil samples collected from Unit 1, this unit is characterized as a hydraulic confining unit overlying the uppermost aquifer at the Site.

- **Unit 2** – Unit 2 comprises the uppermost aquifer at the Site. Unit 2 consists primarily of permeable sand and silty sand, with intermittent layers of less permeable clay-bearing soils with varying thickness. Unit 2 is laterally continuous at the Site with a thickness that varies from about 40 to 54 feet (BBA, 2017a). Bullock, Bennett & Associates, LLC (BBA) completed single-well aquifer tests (slug tests) at six wells (BV-5, BV-21, BV-22, MW-9, MW-10, and MW-11) screened in Unit 2 at the Site in 2017 to evaluate the hydraulic conductivity of the uppermost aquifer (BBA, 2017a). The hydraulic conductivity results of the Unit 2 slug tests ranged from 1.37E-02 cm/s to 5.14E-04 cm/s, which are values consistent with water-bearing units composed of fine to medium sand (Dominico and Schwartz, 1990).

- **Unit 3** – Unit 3 is a basal clay confining stratum that primarily consists of low permeability clay and silty clay with some sandy clay zones. Most of the historical soil borings completed at the Site were not drilled deep enough to encounter Unit 3, but based on the soil borings where it was encountered, Unit 3 appears to be laterally continuous at the Site and is generally greater

than 20 feet thick (BBA, 2017a). The clayey soils of Unit 3 restrict downward migration of groundwater from Unit 2.

Geologic cross sections showing the three lithologic units described above are provided on Figure 2.

3.0 CCR GROUNDWATER MONITORING SYSTEM

Unit 2 is considered the uppermost aquifer at the Site based on its stratigraphic location, groundwater availability, and characteristically higher hydraulic conductivity/permeability when compared to Unit 1 and Unit 3. The CCR groundwater monitoring well system for the PAP, which was certified by a professional engineer in accordance with Section 257.91 of the CCR Rule (BBA, 2017b), consists of nine monitoring wells screened in Unit 2. The locations of the CCR monitoring wells are shown on Figure 1. Groundwater potentiometric surface maps presented in Appendix B indicate that groundwater in the vicinity of the PAP generally flows from the northwest to the southeast toward Coleto Creek Reservoir. The location of each CCR monitoring well relative to the PAP is as follows:

Upgradient/Background Wells	Downgradient Wells
BV-5 BV-21 MW-8	MW-4 MW-5 MW-6 MW-9 MW-10 MW-11

The CCR groundwater monitoring wells were installed under the direction of a geoscientist using recognized drilling methods. Soil samples were collected continuously to the base of each monitoring well boring and lithologically logged in the field. All sampling and aquifer characterization methods that were utilized are recognized and accepted methods that provided data at a spatial resolution necessary to adequately characterize the variability of subsurface conditions that control contaminant transport.

The uppermost aquifer occurs under unconfined to semi-confined conditions within the shallow sand and silty sand strata that comprise Unit 2 at the Site. The Site monitoring wells were installed in Unit 2 because that is where the water table was typically encountered during well drilling operations and because the sandy material in Unit 2 constitutes a preferential flow pathway compared to the clay-rich strata in Unit 1 and Unit 3. As described in Section 2.0, single-well aquifer tests (slug tests) were performed at six CCR monitoring wells around the PAP to assess the hydraulic conductivity (i.e., the relative ease at which a fluid moves through a medium) and groundwater flow rates within the uppermost aquifer at the Site. The similarity in hydraulic conductivities in the test wells suggests low spatial variability in permeability and groundwater flow pathways within the uppermost aquifer.

Regular groundwater monitoring activities were performed at the PAP prior to the 2015 effective date of the CCR Rule in accordance with the groundwater monitoring program established as part of the landfill registration with the TCEQ Industrial and Hazardous Waste Permits Section (Solid Waste Registration No. 31911). The PAP groundwater monitoring program was established after construction of the PAP in 1978 and included current CCR groundwater monitoring program wells MW-4 through MW-8, which

were originally named W-4 through W-8 (S&L, 1978). Subsequent investigations in other areas of the power station included installation of additional groundwater monitoring wells, including CCR groundwater monitoring program background wells BV-5 and BV-21. CCR groundwater monitoring program wells MW-9 and MW-10 were installed in 2015, and MW-11 was installed in 2017 to increase the density of monitoring wells on the downgradient edge of the PAP prior to initiating the CCR groundwater monitoring program (BBA, 2017a). In addition to the CCR groundwater monitoring program, Site wells are monitored on a semi-annual basis as part of a Texas Pollutant Discharge Elimination System (TPDES) permit (Permit No. WQ0002159000) groundwater monitoring program that was established in 2010. TPDES groundwater monitoring reports are submitted to the TCEQ on an annual basis.

A summary of the Coleto Creek CCR groundwater monitoring data was provided to the TCEQ Remediation Division on April 8, 2019 in response to a TCEQ letter requesting the data on March 22, 2019. The TCEQ issued a letter dated April 24, 2019 requiring the submittal of a Drinking Water Survey Report associated with the CCR unit. A final Drinking Water Survey Report (Golder, 2019) was submitted to the TCEQ on July 25, 2019, which described the CCR groundwater monitoring well network, summarized the CCR groundwater monitoring data, and inventoried drinking water wells in the area. The Drinking Water Survey Report concluded that no imminent threats to water wells or potentially affected drinking water wells were identified at or in the vicinity of the PAP. The Drinking Water Survey Report was approved by the TCEQ in a letter dated August 15, 2019.

TCEQ has reviewed the PAP monitoring well network on several occasions and has approved the monitoring well network as adequate to assess groundwater quality and potential releases from the PAP. Based on the extensive hydrogeologic evaluations conducted at the Site, the existing CCR groundwater monitoring network is adequate to affectively address spatial variability, accurately represent the quality of groundwater, and detect potential groundwater contamination at the Site.

3.1 Groundwater Potentiometric Surface Elevations

Groundwater potentiometric surface elevations vary across the Site. They are highest in the upgradient wells located west of the PAP and lowest in the downgradient wells located east and southeast of the PAP (see groundwater potentiometric surface maps in Appendix A) . As depicted on the Figure 2 cross sections, groundwater is generally encountered at or near the top of Unit 2.

Groundwater elevations measured in the CCR monitoring wells during the CCR monitoring period (2017 - present) are summarized in Table 1. During this period, groundwater elevations have ranged from a maximum of 116.7 feet above mean sea level (amsl) in upgradient well MW-8 to a minimum of 98.4 feet amsl in downgradient well MW-5. The depth to groundwater below ground surface (and correspondingly below the top of Unit 1) at the CCR monitoring well locations has ranged from 10.7 feet in downgradient well MW-11 to 28.8 feet in downgradient well MW-4 during the CCR monitoring period, which is two to five times greater than the required 5-feet of separation required between groundwater within the uppermost aquifer (i.e., Unit 2) and the base of CCR.

4.0 CCR UNIT PLACEMENT ABOVE THE UPPERMOST AQUIFER

Section 257.60(a) states that, “New CCR landfills, existing and new CCR surface impoundments, and all lateral expansions of CCR units must be constructed with a base that is located no less than 1.52 meters (five feet) above the upper limit of the uppermost aquifer, or must demonstrate that there will not

be an intermittent, recurring, or sustained hydraulic connection between any portion of the base of the CCR unit and the uppermost aquifer due to normal fluctuations in groundwater elevations (including the seasonal high water table)."

As noted in TCEQ Notice of Deficiency No. 3 on the Primary Ash Pond CCR Program Registration Package (TCEQ, 2023), the maximum range of groundwater elevations measured in Site CCR groundwater monitoring wells and the minimum range of the estimated base of the PAP CCR unit overlap. However, a direct comparison of the ranges of groundwater elevations to the base of the PAP is not appropriate to evaluate the CCR unit placement above the uppermost aquifer criteria for the following reasons:

(1) Groundwater elevations vary across the Site and the maximum measured groundwater elevation of the uppermost aquifer (i.e., Unit 2) does not occur at the location of the lowest bottom elevation (base) of the CCR unit;

(2) Lithologic and groundwater elevation data indicate groundwater is generally encountered at or near the top of Unit 2; and

(3) Unit 1 is a laterally continuous confining unit that prevents vertical migration of groundwater from Unit 2 to the PAP. This third point is supported by boring log information that indicates Unit 1 is typically dry to moist and permeability test results (ranging from 1.3E-08 to 2.8E-07 cm/s with a median value of 3.8E-08 cm/s) that indicate Unit 1 has hydraulic conductivity values consistent with low permeability clay and silty/sandy clay.

Based on this information, the PAP meets the CCR Rule requirements for placement above the uppermost aquifer.

5.0 REFERENCES

Barnes, Virgil E., 1998. Geologic Atlas of Texas, Beeville-Bay City Sheet. Sheet. Texas Bureau of Economic Geology. 1975; revised 1987; reprinted 1998.

Bullock, Bennett & Associates, LLC (BBA), 2017a. Groundwater Hydrogeologic Monitoring Plan, Coleto Creek Power Station, Fannin, Texas.

Bullock, Bennett & Associates, LLC (BBA), 2017b. Coleto Creek Primary Ash Pond Monitoring System Certification Letter, Coleto Creek Power Station, Fannin, Texas.

Domenico, P.A. and F.W. Schwartz, 1990. *Physical and Chemical Hydrogeology*, John Wiley & Sons, New York, 824 p.

Golder, 2019. Drinking Water Survey Report – Revision No. 1, Coleto Creek Power Station, Goliad County, Texas. July 25.

Sargent & Lundy Engineers, 1978. Design and Construction Summary for Coal Pile and Wastewater Pond Facilities, Coleto Creek Power Station Unit 1, Report SL-3689.

Texas Commission on Environmental Quality (TCEQ), 2023. Notice of Deficiency No. 3, New Coal Combustion Residuals (CCR) Registration No. CCR116.

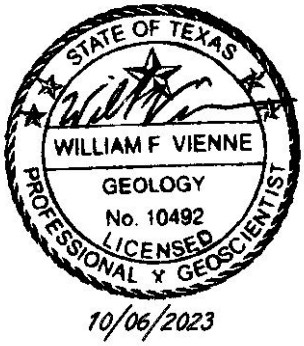
WSP Golder, 2023. 2022 Annual Groundwater Monitoring and Corrective Action Report, Coleto Creek Primary Ash Pond, Fannin, Texas. January 31.

SIGNATURE PAGE

Bullock, Bennett & Associates, LLC

William Vienne, P.G.
Senior Hydrogeologist

Craig Bennett, P.G.
Principal Hydrogeologist



TABLES

TABLE 1
GROUNDWATER ELEVATION SUMMARY
PRIMARY ASH POND AREA
COLETO CREEK POWER STATION

Well ID	TOC Elevation (feet amsl)	Casing Stickup (feet ags)	Screen Interval (feet bgs)	Measurement Date	Depth to Water (feet btoc)	Depth to Water (feet bgs)	Water Elevation (feet amsl)
Upgradient Wells							
BV-5	135.8	2.80	30-40	3/29/2017	29.35	26.55	106.45
				5/11/2017	29.11	26.31	106.69
				5/16/2017	29.10	26.30	106.70
				6/7/2017	29.92	27.12	105.88
				6/20/2017	29.18	26.38	106.62
				6/27/2017	29.25	26.45	106.55
				7/12/2017	29.32	26.52	106.48
				7/18/2017	29.41	26.61	106.39
				09/18/18	30.33	27.53	105.47
				06/03/19	28.11	25.31	107.69
				10/02/19	29.29	26.49	106.51
				06/09/20	30.01	27.21	105.79
				10/06/20	30.55	27.75	105.25
				06/02/21	30.12	27.32	105.68
				06/28/21	29.30	26.50	106.50
				05/25/22	30.21	27.41	105.59
				09/21/22	31.18	28.38	104.62
				05/26/23	31.55	28.75	104.25
BV-21	131.17	2.77	30-40	3/28/2017	19.25	16.48	111.92
				5/9/2017	18.54	15.77	112.63
				5/17/2017	18.52	15.75	112.65
				6/6/2017	18.44	15.67	112.73
				6/20/2017	18.76	15.99	112.41
				6/27/2017	18.71	15.94	112.46
				7/10/2017	18.86	16.09	112.31
				7/18/2017	18.90	16.13	112.27
				09/18/18	19.56	16.79	111.61
				06/03/19	17.85	15.08	113.32
				10/02/19	19.71	16.94	111.46
				06/09/20	19.67	16.90	111.50
				10/06/20	19.75	16.98	111.42
				06/02/21	19.67	16.90	111.50
				09/28/21	19.25	16.48	111.92
				05/25/22	23.08	20.31	108.09
				09/20/22	23.51	20.74	107.66
				05/26/23	25.00	22.23	106.17
MW-8	134.72	2.94	37-57	3/28/2017	22.60	19.66	112.12
				5/9/2017	21.29	18.35	113.43
				5/15/2017	21.30	18.36	113.42
				6/6/2017	21.25	18.31	113.47
				6/20/2017	22.08	19.14	112.64
				6/27/2017	22.12	19.18	112.60
				7/10/2017	22.50	19.56	112.22
				7/18/2017	22.67	19.73	112.05
				09/18/18	20.76	17.82	113.96
				06/03/19	19.70	16.76	115.02
				10/02/19	23.13	20.19	111.59
				06/09/20	19.85	16.91	114.87
				10/06/20	21.30	18.36	113.42
				06/02/21	18.01	15.07	116.71
				09/28/21	18.60	15.66	116.12
				05/25/22	26.20	23.26	108.52
				09/20/22	25.81	22.87	108.91
				05/26/23	27.13	24.19	107.59

TABLE 1
GROUNDWATER ELEVATION SUMMARY
PRIMARY ASH POND AREA
COLETO CREEK POWER STATION

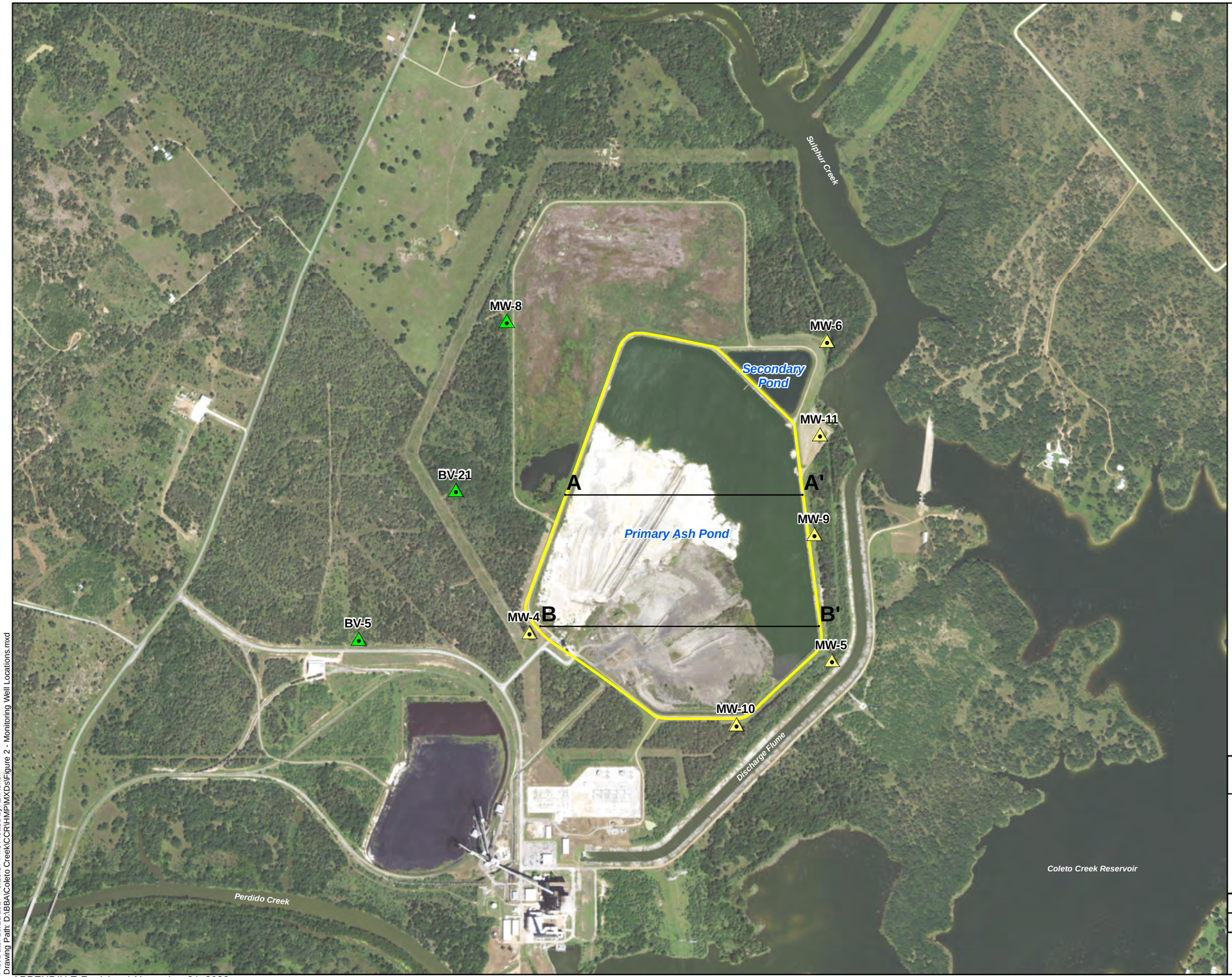
Well ID	TOC Elevation (feet amsl)	Casing Stickup (feet ags)	Screen Interval (feet bgs)	Measurement Date	Depth to Water (feet btoc)	Depth to Water (feet bgs)	Water Elevation (feet amsl)
Downgradient Wells							
MW-4	137.71	3.41	50-70	3/28/2017	29.25	25.84	108.46
				5/9/2017	28.94	25.53	108.77
				5/15/2017	28.93	25.52	108.78
				6/6/2017	28.83	25.42	108.88
				6/20/2017	28.94	25.53	108.77
				6/22/2017	29.02	25.61	108.69
				7/10/2017	29.11	25.70	108.60
				7/18/2017	29.15	25.74	108.56
				09/18/18	30.54	27.13	107.17
				06/03/19	27.92	24.51	109.79
				10/02/19	29.89	26.48	107.82
				06/09/20	29.86	26.45	107.85
				10/06/20	30.65	27.24	107.06
				06/02/21	29.74	26.33	107.97
				09/28/21	28.60	25.19	109.11
				05/25/22	31.13	27.72	106.58
				09/19/22	30.90	27.49	106.81
				05/26/23	32.18	28.77	105.53
MW-5	122.31	2.74	39-59	3/30/2017	20.94	18.20	101.37
				5/10/2017	20.30	17.56	102.01
				5/16/2017	20.37	17.63	101.94
				6/8/2017	20.61	17.87	101.70
				6/21/2017	20.87	18.13	101.44
				6/26/2017	21.00	18.26	101.31
				7/11/2017	21.21	18.47	101.10
				09/18/18	22.21	19.47	100.10
				06/03/19	20.42	17.68	101.89
				10/02/19	22.12	19.38	100.19
				06/09/20	22.08	19.34	100.23
				10/06/20	23.90	21.16	98.41
				06/02/21	19.53	16.79	102.78
				09/28/21	19.65	16.91	102.66
				05/25/22	21.32	18.58	100.99
				09/20/22	20.20	17.46	102.11
				05/26/23	20.53	17.79	101.78
MW-6	119.22	2.87	41-61	3/29/2017	15.76	12.89	103.46
				5/11/2017	15.70	12.83	103.52
				5/16/2017	15.68	12.81	103.54
				6/7/2017	15.92	13.05	103.30
				6/22/2017	16.34	13.47	102.88
				6/28/2017	16.33	13.46	102.89
				7/12/2017	16.76	13.89	102.46
				7/20/2017	16.92	14.05	102.30
				09/18/18	16.76	13.89	102.46
				06/03/19	15.66	12.79	103.56
				10/02/19	17.62	14.75	101.60
				10/06/20	17.90	15.03	101.32
				06/02/21	14.96	12.09	104.26
				09/28/21	14.76	11.89	104.46
				05/28/22	16.38	13.51	102.84
				09/19/22	14.98	12.11	104.24
				05/26/23	15.99	13.12	103.23

TABLE 1
GROUNDWATER ELEVATION SUMMARY
PRIMARY ASH POND AREA
COLETO CREEK POWER STATION

Well ID	TOC Elevation (feet amsl)	Casing Stickup (feet ags)	Screen Interval (feet bgs)	Measurement Date	Depth to Water (feet btoc)	Depth to Water (feet bgs)	Water Elevation (feet amsl)
MW-9	132.30	3.00	40-60	3/30/2017	28.31	25.31	103.99
				5/10/2017	27.75	24.75	104.55
				5/17/2017	29.87	26.87	102.43
				6/7/2017	28.20	25.20	104.10
				6/21/2017	28.65	25.65	103.65
				6/26/2017	28.83	25.83	103.47
				7/11/2017	29.12	26.12	103.18
				7/19/2017	29.48	26.48	102.82
				09/18/18	30.13	27.13	102.17
				06/03/19	28.64	25.64	103.66
				10/02/19	30.47	27.47	101.83
				06/09/20	29.73	26.73	102.57
				10/06/20	30.90	27.90	101.40
				06/02/21	27.25	24.25	105.05
				09/28/21	28.50	25.50	103.80
				05/25/22	26.76	23.76	105.54
				09/19/22	26.04	23.04	106.26
				05/26/23	30.06	27.06	102.24
MW-10	130.40	2.80	40-60	3/30/2017	27.90	25.10	102.50
				5/9/2017	27.50	24.70	102.90
				5/16/2017	27.57	24.77	102.83
				6/8/2017	27.68	24.88	102.72
				6/21/2017	27.84	25.04	102.56
				6/26/2017	27.97	25.17	102.43
				7/11/2017	28.14	25.34	102.26
				7/19/2017	28.26	25.46	102.14
				09/18/18	29.15	26.35	101.25
				06/03/19	27.10	24.30	103.30
				08/08/19	27.98	25.18	102.42
				10/02/19	28.81	26.01	101.59
				06/09/20	29.50	26.70	100.90
				10/06/20	30.30	27.50	100.10
				06/02/21	27.51	24.71	102.89
				09/28/21	27.32	24.52	103.08
				05/25/22	28.40	25.60	102.00
				09/20/22	28.75	25.95	101.65
				05/26/23	28.74	25.94	101.66
MW-11	118.66	2.86	29-49	5/10/2017	14.30	11.44	104.36
				5/16/2017	14.39	11.53	104.27
				6/7/2017	14.56	11.70	104.10
				6/21/2017	14.85	11.99	103.81
				6/26/2017	14.94	12.08	103.72
				7/11/2017	15.20	12.34	103.46
				7/19/2017	15.31	12.45	103.35
				09/18/18	15.22	12.36	103.44
				06/03/19	14.82	11.96	103.84
				10/02/19	15.93	13.07	102.73
				06/09/20	14.54	11.68	104.12
				10/06/20	15.10	12.24	103.56
				06/02/21	13.80	10.94	104.86
				09/28/21	14.50	11.64	104.16
				05/25/22	13.80	10.94	104.86
				09/19/22	13.59	10.73	105.07
				05/26/23	15.43	12.57	103.23

Notes:
Abbreviations: ags - above ground surface; amsl - above mean sea level; bgs - below ground surface; btoc - below top of casing.

FIGURES



Explanation

- Downgradient CCR Monitoring Well
- Upgradient/Backround CCR Monitoring Well
- CCR Monitored Unit

STATE OF TEXAS
WILLIAM F VIENNE
GEOLOGY
No. 10492
LICENSED
PROFESSIONAL GEOSCIENTIST

10/06/2023

Ref: Orthoimagery from ArGIS World Imagery Server

0 1:12,000 2,000 Feet

Coleto Creek Power, LLC

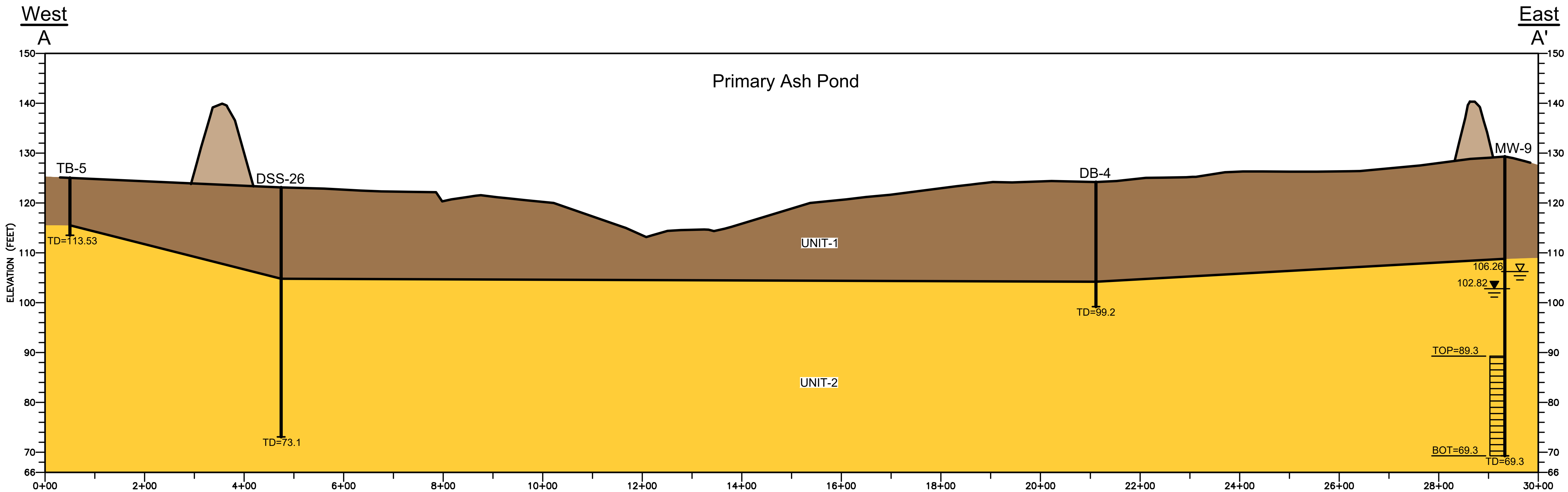
Figure 1
Monitoring Well and
Cross Section Locations

PROJECT: 17258	BY: EEF	REVISIONS
DATE: Oct 2017	CHECKED: CEB	

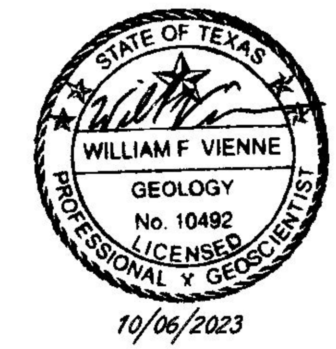
Bullock, Bennett & Associates, LLC
Engineering and Geoscience
Texas Registrations: Engineering F-8542, Geoscience 50127

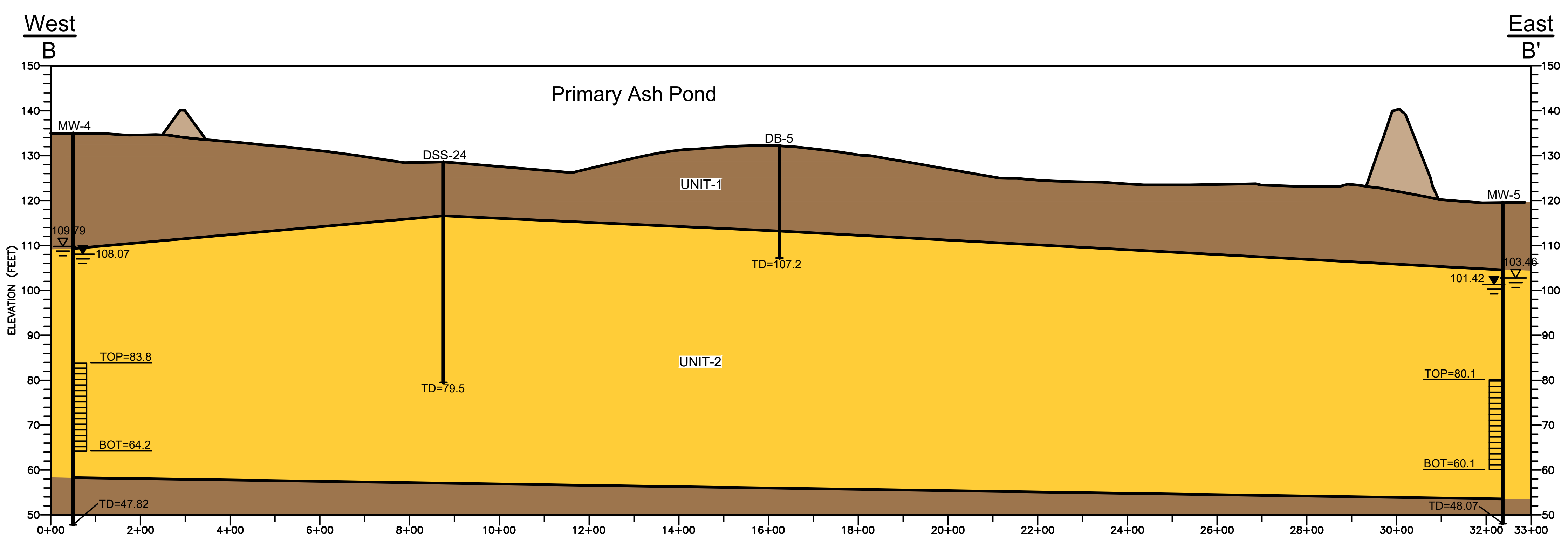
Plot Date: 10/13/2017 - 6:10:57 PM, Plotted by: E.Ficker
Drawing Path: D:\BBA\Coleto Creek\CCR\MPM\MXD\sf\Figure 2 - Monitoring Well Locations.mxd

Privileged and confidential attorney client work



PROFILE B-B' (LOOKING NORTH)
SCALE:1"=240'(H), 1"=24'(V)





PROFILE C-C' (LOOKING NORTH)
SCALE:1"=300'(H), 1"=30'(V)

UNIT DESCRIPTIONS:

- Unit 1 - Sandy CLAY and Silty CLAY with some Caliche. Surficial unit.
- Unit 2 - Sand and Silty SAND with caliche and CLAY/Sandy CLAY lenses. First groundwater-bearing unit.
- Unit 3 - CLAY and Silty CLAY. Basal unit.
- Backfilled (Unit 1) Material

NOTES:

Pre-construction topography and site stratigraphy are estimated and interpolated based on data in Sargent & Lundy (1978), pre- and post-construction topographic data, and various post-construction borings located outside of pond footprint.

Max CCR Monitoring Program Groundwater Potentiometric Surface (feet amsl) 2017 to 2023

Average CCR Monitoring Program Groundwater Potentiometric Surface (feet amsl) 2017 to 2023

Coleto Creek Power, LLC

FIGURE 2

GENERALIZED GEOLOGIC CROSS SECTIONS A-A' AND B-B'

PROJECT: 23643-07	DATE: AUG 2023	BY: RCAD-RR	CHECKED: CBB

Bullock, Bennett & Associates, LLC
ENGINEERING AND GEOSCIENCE
Texas Registrations: Engineering F-8542, Geoscience 50127

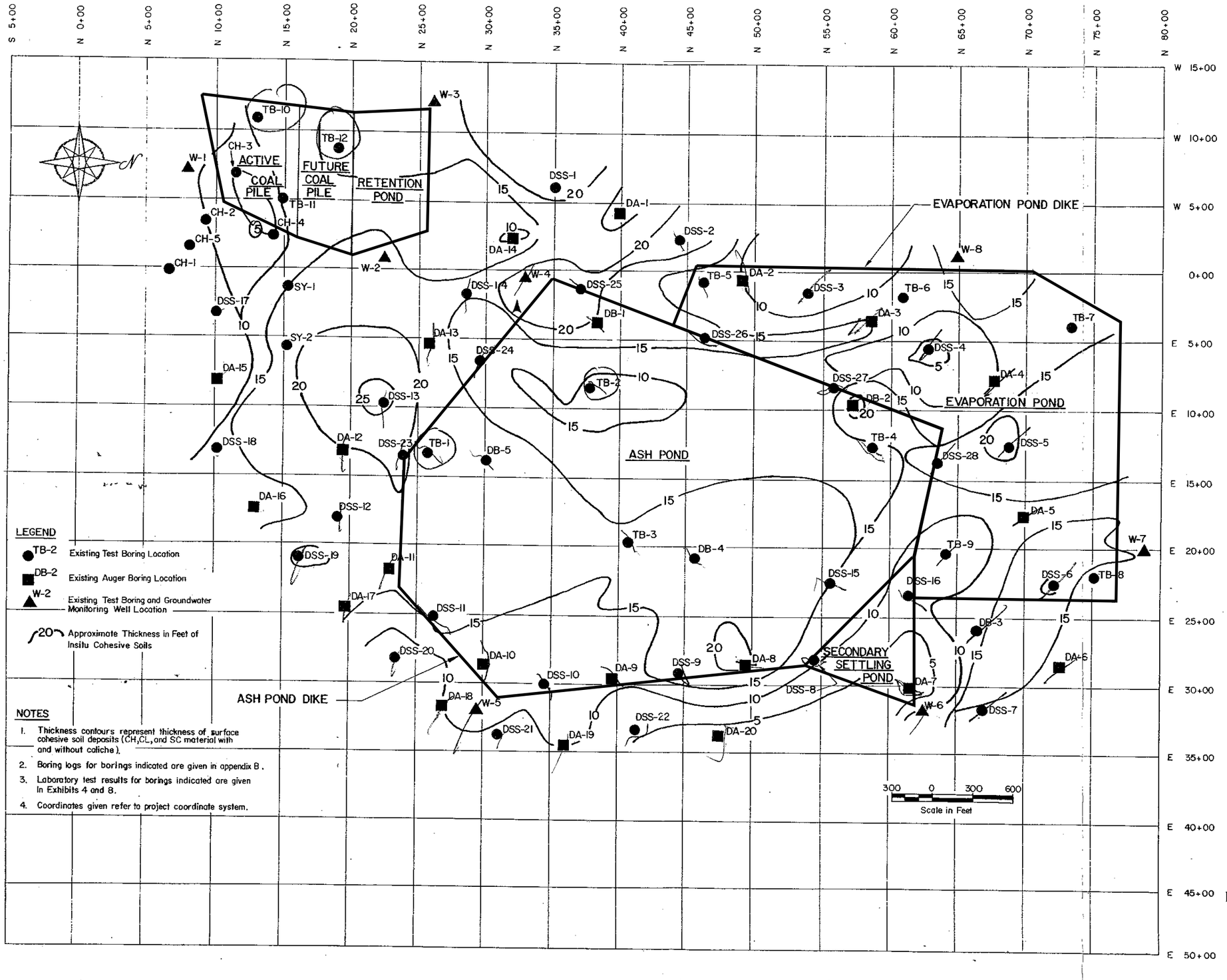
APPENDIX A

S&L (1978) "Thickness Map of In-Situ Cohesive Soils" (i.e., Unit 1 thickness map) and Boring Logs

EXHIBIT 3
SL--3689

S 5+00 N 0+00 N 5+00 N 10+00 N 15+00 N 20+00 N 25+00 N 30+00 N 35+00 N 40+00 N 45+00 N 50+00 N 55+00 N 60+00 N 65+00 N 70+00 N 75+00 N 80+00

W 15+00 W 10+00 W 5+00 0+00 E 5+00 E 10+00 E 15+00 E 20+00 E 25+00 E 30+00 E 35+00 E 40+00 E 45+00 E 50+00



LEGEND

- TB-2 — Existing Test Boring Location
- DB-2 — Existing Auger Boring Location
- W-2 — Existing Test Boring and Groundwater Monitoring Well Location
- 20 — Approximate Thickness in Feet of Insitu Cohesive Soils

NOTES

1. Thickness contours represent thickness of surface cohesive soil deposits (CH,CL, and SC material with and without caliche).
2. Boring logs for borings indicated are given in appendix B.
3. Laboratory test results for borings indicated are given in Exhibits 4 and 8.
4. Coordinates given refer to project coordinate system.

BORING LOCATION PLAN AND THICKNESS CONTOURS OF INSITU COHESIVE SOILS

SARGENT & LUNDY ENGINEERS

APPENDIX B

SOIL BORING LOGS FOR COAL PILE AND WASTEWATER POND FACILITIES

GENERAL NOTES FOR LOG OF BORINGS

GRANULAR SOILS

Component	Sieve Size Range
Boulders	> 8 in.
Cobbles	8 in. - 3 in.
Gravel (Coarse)	3 in. - 3/4 in.
Gravel (Fine)	3/4 in. - #4 (4.75mm.)
Sand (Coarse	#4 - #10 (2.00mm.)
Sand (Medium)	#10 - #40 (0.425mm.)
Sand (Fine)	#40 - #200 (0.074mm.)
Silt	< #200

Descriptive Term	Percent By Weight
Trace	0 - 9
Little	10 - 19
Some	20 - 34
And	35 - 50

DEGREE OF COMPACTNESS OF GRANULAR SOILS

N - Blows/ft	Description
< 4	Very Loose
4 - 9	Loose
10 - 29	Medium Dense
30 - 49	Dense
50 - 80	Very Dense
> 80	Extremely Dense

CONSISTENCY OF COHESIVE SOILS

N - Blows/ft	Unconfined Compressive Strength, q_u, tsf	Consistency
< 2	$q_u \leq 0.25$	Very Soft
2 - 3	$0.25 \leq q_u \leq 0.50$	Soft
4 - 7	$0.50 \leq q_u \leq 1.00$	Medium Stiff
8 - 15	$1.00 \leq q_u \leq 2.00$	Stiff
16 - 32	$2.00 \leq q_u \leq 4.00$	Very Stiff
> 32	$4.00 \leq q_u$	Hard

N = Number of blows of a 140 lb. hammer falling 30 in. required to drive a 2 in. O. D. split-spoon sampler one foot.

INTERMEDIATE SOILS

Descriptive Term	Plasticity Index
SILT	0 - 3
SILT, trace Clay or SAND, trace Clay	4 - 7

COHESIVE SOILS

Descriptive Term	Plasticity Index
Clayey SILT or ORGANIC Clayey SILT	8 - 14
Silty CLAY or ORGANIC Silty CLAY	15 - 30
CLAY or ORGANIC CLAY	> 30

SYMBOLS AND ABBREVIATIONS

- Ground water level, at the time of boring operation
- Ground water level, at the time noted, after boring operations
- Double tube core barrel (CB)
- Split spoon sample (SS)
- Shelby tube sample (ST)
- Denison sample (DS)
- Osterberg Piston Tube sample (OS)

PT Percolation Test
WPT Water Pressure Test
VS Vane Shear Test
SA Sieve Analysis
P Permeability Test
U Unconfined Compression Test
DS Direct Shear Test
T Triaxial Compression Test
C Consolidation Test
DT Dynamic Triaxial Compression Test
DSS Dynamic Simple Shear Test
R Resonant Column Test

RQD INTERPRETATIONS

RQD = Total length of recovered core pieces measuring 4 in. or more in length, expressed as a percentage of the total length of the core run.

Descriptive Term	RQD, Percentage
Very Poor	0 - 25
Poor	26 - 50
Fair	51 - 75
Good	76 - 90
Excellent	91 - 100

COLETO CREEK POWER STATION
GENERAL NOTES FOR LOG OF BORINGS

CENTRAL POWER & LIGHT CO.

SARGENT & LUNDY ENGINEERS

PROJECT NUMBER 4857

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			GRAPH SYMBOL	LETTER SYMBOL	TYPICAL DESCRIPTION
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS (little or no fines)		GW	Well-graded gravels, gravel-sand mixtures, little or no fines.
				GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines.
	More than 50% of coarse fraction RETAINED on No. 4 sieve	GRAVELS WITH FINES (appreciable amount of fines)		GM	Silty gravels, gravel-sand-silt mixture.
				GC	Clayey gravels, gravel-sand-clay mixtures.
More than 50% of material is LARGER than No. 200 sieve size	SAND AND SANDY SOILS	CLEAN SAND (little or no fines)		SW	Well-graded sands, gravelly sands, little or no fines.
				SP	Poorly-graded sands, gravelly sands, little or no fines.
	More than 50% of coarse fraction PASSING No. 4 sieve	SANDS WITH FINES (appreciable amount of fines)		SM	Silty sands, sand-silt mixtures.
				SC	Clayey sands, sand-clay mixtures.
FINE GRAINED SOILS	SILTS AND CLAYS	Liquid limit LESS than 50		ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity.
				CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.
				OL	Organic silts and organic silty clays of low plasticity.
More than 50% of material is SMALLER than No. 200 sieve size	SILTS AND CLAYS	Liquid limit GREATER than 50		MH	Inorganic silts, micaceous or diatomaceous fine sand or silty soils.
				CH	Inorganic clays of high plasticity, fat clays.
				OH	Organic clays of medium to high plasticity, organic silts.
HIGHLY ORGANIC SOILS				PT	Peat, humus, swamp soils with high organic contents.

NOTES:

1. Dual letter symbols are used on the boring logs to indicate borderline classifications.
2. Graphic symbols are shown for only those soils encountered in the field study.
3. For boderline classifications the graphic symbols shown on the boring logs correspond to the most predominate classification.

COLETO CREEK POWER STATION
SOIL CLASSIFICATION CHART

CENTRAL POWER & LIGHT CO.

SARGENT & LUNDY ENGINEERS

PROJECT NUMBER 4857

BORING NO. W-1

SHEET 1 OF 2

PROJECT: Coleto Creek Power Station
CLIENT: Central Power & Light Co.
FEATURE: Monitoring Well W-1
SURFACE ELEVATION: 112.0 Ft | TOTAL DEPTH: 56.5 Ft
LOCATION: N 8+00 W 7+30
DEPTH TO WATER DURING DRILLING: 31 Ft | DATE: 3-29-78
DRILLED BY: Trinity Testing Laboratories, Inc.
LOGGED BY: Sargent & Lundy
TESTED BY: Trinity Testing Laboratories, Inc.

DEPTH (ft.)	SAMPLE NUMBER AND TYPE	BLOWS/6" ON SAMPLER (RECOVERY, %)	POCKET PENETROMETER MEASUREMENT (tsf.)	FIELD MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	OTHER TESTS	CORE RECOVERY (%)	RQD (%)	SYMBOLS	DESCRIPTION	DEPTH (ft.)	ELEVATION (ft., MSL)
0										SM	SAND, silty, coarse to fine, brown.	0	112.0
										CH	CLAY, silty, some sand, gray.		111.2
	ST1	(79)		13.9	51	19	SA						108.0
5	ST2	(88)								CL	CLAY, sandy, gray, with some Caliche.	5	
	ST3	(82)		12.3			SA						103.0
										SC	SAND, clayey, medium to fine, gray.	10	101.5
10	ST4	(83)		6.0	38	21	SA			SP-SM	SAND, coarse to fine, little gravel, trace silt, white.		
15	ST5	(25)										15	
20	SS6	2-19-14 (100)									- grades to medium to fine, no gravel.	20	91.5
													88.5
25	SS7	4-6-5 (100)					SA			SM-SC	SAND, clayey and silty, trace gravel, white.	25	
30	SS8	5-14-17 (100)										30	81.0
										SM	SAND, silty, medium to fine, gray and brown.		80.5
35	SS9	15-75-44 (100)										35	
													74.0
40	SS10	68-100/6 (100)			19	14	SA			CL-ML	CLAY, silty, some fine sand, calcareous, white. (Caliche)	40	
													70.0
										SM	SAND, silty, medium to fine, white.		
45	SS11	19-40-100/3 (100)										45	
											- cemented thin layer at 46.3 Ft.		66.0
50												50	62.0

REVISION	DATE / APPROVED BY	DESCRIPTION
0	10-2-78 / D.E. Evans	For Use

COLETO CREEK POWER STATION
LOG OF BORING W-1

CENTRAL POWER & LIGHT CO.

SARGENT & LUNDY ENGINEERS

PROJECT NUMBER 4857

BORING NO. W-1 (cont'd)

DEPTH (ft.)	SAMPLE NUMBER AND TYPE	BLOWS/6" ON SAMPLER (RECOVERY, %)	POCKET PENETROMETER MEASUREMENT (tsf)	FIELD MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	OTHER TESTS	CORE RECOVERY (%)	RQD (%)	SYMBOLS	DESCRIPTION	DEPTH (ft.)	ELEVATION (ft., MSL)
50	SS12	58-70-44 (100)								SC	SAND, clayey, coarse to fine, white.	52.0	
										CL	CLAY, silty, trace fine sand, calcareous white to gray.	61.0	
55	SS13	10-15-17 (100)					SA						
											END OF BORING - 56.5 Ft Groundwater encountered at 31.0 Ft		55.5
60													

REVISION	DATE / APPROVED BY	DESCRIPTION
0	10-24-78 D.G.B. Lee	For Use

COLETO CREEK POWER STATION
LOG OF BORING W-1 (cont'd)

CENTRAL POWER & LIGHT CO.

SARGENT & LUNDY ENGINEERS

PROJECT NUMBER

BORING NO. W-2

SHEET 1 OF 2

PROJECT:	Coleto Creek Power Station
CLIENT:	Central Power & Light Co.
FEATURE:	Monitoring Well W-2
SURFACE ELEVATION: 124.16 F	TOTAL DEPTH: 66.5 Ft
LOCATION: N 22+30 W 1+20	
DEPTH TO WATER DURING DRILLING: 40.5Ft	DATE: 3-27-78
DRILLED BY: Trinity Testing Laboratories, Inc.	
LOGGED BY: Sargent & Lundy	
TESTED BY: Trinity Testing Laboratories, Inc.	

DEPTH (ft.)	SAMPLE NUMBER AND TYPE	BLOWS/6" ON SAMPLER (RECOVERY, %)	POCKET PENETROMETER MEASUREMENT (tsf.)	FIELD MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	OTHER TESTS	CORE RECOVERY (%)	RQD (%)	SYMBOLS	DESCRIPTION	DEPTH (ft.)	ELEVATION (ft., MSL)
0	ST1	(100)								SM	SAND, silty, coarse to fine, brown.	0	124.16
5	ST2	(89)		14.3	48	21	SA			SC	SAND, clayey, medium to fine, brown and gray.	5	123.66
	ST3	(94)					SA						
10	ST4	(100)										10	
15	ST5	(89)					SA			SP-SM	SAND, coarse to fine, trace silt, white.	15	109.16
20	SS6	18-16-27 (100)										20	
25	SS7	11-13-16 (100)								SP	SAND, medium to fine, trace silt, white.	25	97.16
30	SS8	14-100 (100)									- cemented 1 ft layer.	30	
35	SS9	14-100 (100)										35	
40	SS10	19-30-61 (100)										40	83.66
45	SS11	16-36-43 (100)										45	
50												50	

REVISION	DATE / APPROVED BY	DESCRIPTION
0	11-24-78 / DGD 12-7-78	For Use

COLETO CREEK POWER STATION

LOG OF BORING W-2

CENTRAL POWER & LIGHT CO.

SARGENT & LUNDY ENGINEERS

BORING NO. W-2 (cont'd)

DEPTH (ft.)	SAMPLE NUMBER AND TYPE	BLOWS/6" ON SAMPLER (RECOVERY, %)	POCKET PENETROMETER MEASUREMENT (tsf)	FIELD MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	OTHER TESTS	CORE RECOVERY (%)	RQD (%)	SYMBOLS	DESCRIPTION	DEPTH (ft.)	ELEVATION (ft., MSL)
50	SS12	32-100/3 (100)								SP SM-SC	SAND, silty and clayey, coarse to fine, trace gravel, calcareous, white. (Caliche)		74.16
												50	73.66
55	SS13	27-100/3.25 (100)			20	15	SA						
60	SS14	29-100/3.5 (100)											
										CL	CLAY, silty, light brown.		62.16
65	SS15	15-21-34 (100)											
											END OF BORING - 66.5 Ft Groundwater encountered at 40.5 ft		57.66
70													

REVISION	DATE / APPROVED BY	DESCRIPTION
0	10-24-78 D.G. Dyson	For Use

COLETO CREEK POWER STATION
LOG OF BORING W-2 (cont'd)

CENTRAL POWER & LIGHT CO.

SARGENT & LUNDY ENGINEERS

PROJECT NUMBER 4957

BORING NO. W-3

SHEET 1 OF 2

PROJECT:	Coleto Creek Power Station
CLIENT:	Central Power & Light Co.
FEATURE:	Monitoring Well W-3
SURFACE ELEVATION:	129.33 Ft — TOTAL DEPTH: 71.5 Ft
LOCATION:	N 25+00 W 12+50
DEPTH TO WATER DURING DRILLING:	40.5Ft — DATE: 3-28-78
DRILLED BY:	Trinity Testing Laboratories Inc.
LOGGED BY:	Sargent & Lundy
TESTED BY:	Trinity Testing Laboratories, Inc.

DEPTH (ft.)	SAMPLE NUMBER AND TYPE	BLOWS/6" ON SAMPLER (RECOVERY, %)	POCKET PENETROMETER MEASUREMENT (tsf.)	FIELD MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	OTHER TESTS	CORE RECOVERY (%)	RQD (%)	SYMBOLS	DESCRIPTION	DEPTH (ft.)	ELEVATION (ft., MSL)
0	ST1	(72)		11.9	40	17	SA			SC	SAND, clayey, medium to fine, brown.	0	129.33
											- grades to gray.		126.33
5	ST2	(89)		12.6	46	18	SA, P					5	
	ST3	(92)											
10	ST4	(88)									- grades to coarse to fine, calcareous, white. (Caliche)	10	118.83
											- grades to medium to fine, gray, with seems of fine sand.		117.33
15	ST5	(78)		3.3		NP						15	
20	SS6	7-16-19 (100)					SA			SP-SM	SAND, coarse to fine, trace silt, calcareous, white.	20	110.33
25	SS7	11-20-30 (100)										25	
30	SS8	10-21-39 (100)									- gravel layer 0.5 Ft	30	96.33
35	SS9	16-17-17 (100)									- clay layer 0.5 Ft	35	93.83
40	SS10	9-17-17 (100)								SC	SAND, clayey, light brown	40	89.33
										SP-SM	SAND, medium to fine, trace silt, white. - grades to coarse to fine, brown.		88.33 87.33
45	SS11	4-9-22 (100)					SA			SC	SAND, clayey, medium to fine, gray.	45	85.33 83.83
50												50	

REVISION	DATE / APPROVED BY	DESCRIPTION
0	12-14-78 / D.B. Bailey	For Use

COLETO CREEK POWER STATION
LOG OF BORING W-3

CENTRAL POWER & LIGHT CO.

SARGENT & LUNDY ENGINEERS

PROJECT NUMBER 4857

BORING NO. W-3 (cont'd) SHEET 2 OF 2

DEPTH (ft.)	SAMPLE NUMBER AND TYPE	BLOWS/6" ON SAMPLER (RECOVERY, %)	POCKET PENETROMETER MEASUREMENT (tsf)	FIELD MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	OTHER TESTS	CORE RECOVERY (%)	ROD (%)	SYMBOLS	DESCRIPTION	DEPTH (ft.)	ELEVATION (ft., MSL)
50	SS12	9-14-29 (100)								SC	- cemented layer 0.5 Ft.		79.33
55	SS13	14-100/4.5 (100)											75.33
										ML-CL	SILT, clayey, some coarse to fine sand, calcareous, white. (Caliche)		73.33
60	SS14	58-106/6 (100)				SA							
65	SS15	70-52-92 (100)											
										CL	CLAY, silty, little sand, light gray.		62.33
70	SS16	13-38-100/3 (100)		13.3	35	18							
75											END OF BORING - 71.5 Ft Groundwater encountered at 40.5 Ft		57.83

REVISION	DATE / APPROVED BY	DESCRIPTION
0	10-24-78 DG Boling	For Use

COLETO CREEK POWER STATION
LOG OF BORING W-3 (cont'd)

CENTRAL POWER & LIGHT CO.

SARGENT & LUNDY ENGINEERS

PROJECT NUMBER 4857

BORING NO. W-4

SHEET 1 OF 2

PROJECT:	Coleto Creek Power Station
CLIENT:	Central Power & Light Co.
FEATURE:	Monitoring Well W-4
SURFACE ELEVATION:	134.32Ft — TOTAL DEPTH: 86.5 Ft
LOCATION:	N 33+00 E0+00
DEPTH TO WATER DURING DRILLING:	42.0Ft — DATE: 4-3-78
DRILLED BY:	Trinity Testing Laboratories, Inc.
LOGGED BY:	Sargent & Lundy
TESTED BY:	Trinity Testing Laboratories, Inc.

DEPTH (ft.)	SAMPLE NUMBER AND TYPE	BLOWS/6" ON SAMPLER (RECOVERY, %)	POCKET PENETROMETER MEASUREMENT (tsf.)	FIELD MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	OTHER TESTS	CORE RECOVERY (%)	RQD (%)	SYMBOLS	DESCRIPTION
0	ST1	(78)		16.8	40	21	SA			SM	SAND, silty, brown.
5	ST2	(89)								SC	SAND, clayey, medium to fine, brown and yellow.
	ST3	(100)		13.2							
10	ST4	(88)		11.3	43	20	SA				
15	ST5	(89)		13.5			SA				
20	SS6	7-33-40 (100)									- seems of cemented sand between 21 Ft and 25 Ft.
25	SS7	14-29-41 (100)								SP-SM	SAND, medium to fine, trace silt, yellow.
30	SS8	30-30-39 (100)					SA			CL	CLAY, silty, some medium to fine sand, calcareous, yellow.
35	SS9	10-20-19 (100)								SP-SM	SAND, medium to fine, yellow.
										CL	CLAY, silty and sandy, yellow.
										SM	SAND, silty, coarse to fine, trace gravel, yellow.
40	SS10	41-29-21									- cemented layer.
											- grades to no gravel, white
45	SS11	19-24-42 (100)					SA				- grades to medium to fine. - grades to coarse to fine with gravel & caliche.
50											

DEPTH (ft.) / ELEVATION (ft., MSL): 0 — 134.32; 5 — 132.32; 20 — 113.32; 25 — 109.32; 30 — 103.32; 35 — 100.32; 99.32; 98.32; 40 — 94.32; 93.32; 92.32; 45 — 89.32; 50 — 86.82

REVISION	DATE / APPROVED BY	DESCRIPTION
0	10-24-78 / D.E. Dinkel	For Use

COLETO CREEK POWER STATION
LOG OF BORING W-4

CENTRAL POWER & LIGHT CO.

SARGENT & LUNDY ENGINEERS

PROJECT NUMBER

BORING NO. W-4 (cont'd)

SHEET 2 OF 2

DEPTH (ft.)	SAMPLE NUMBER AND TYPE	BLOWS/6" ON SAMPLER (RECOVERY, %)	POCKET PENETROMETER MEASUREMENT (tsf)	FIELD MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	OTHER TESTS	CORE RECOVERY (%)	ROD (%)	SYMBOLS	DESCRIPTION	DEPTH (ft.)	ELEVATION (ft., MSL)
50	SS12	106/6 (100)								SM			84.32
55	SS13	32-48-26 (100)											
60	SS14	23-38-34 (100)					SA			CL	CLAY, sandy, yellow and gray.		76.82
										SC-GC	SAND and Gravel, clayey, gray, with cemented layers.		74.32
65	SS15	48-100/2 (100)								CL	CLAY, sandy, gray. - grades to yellow		69.32
70	SS16	18-37-100/5 (100)					SA						66.82
										SM	SAND, silty, coarse to fine, yellow.		63.32
										ML	Caliche, (Chalk)		62.82
75	SS17	22-46-66 (100)					SA			SM	SAND, silty, coarse to fine, yellow.		60.82
										CL	CLAY, silty, little medium to fine sand, gray and brown with pockets of Caliche.		58.32
80	SS18	19-42-56 (100)			46	23	SA						
85	SS19	32-53-84 (100)									END OF BORING - 86.5 Ft		
90											Groundwater encountered at 42.0 Ft.		47.82

REVISION	DATE / APPROVED BY	DESCRIPTION
0	10-24-78 / D.G.B. Eddy	For Use

COLETO CREEK POWER STATION
LOG OF BORING W-4 (cont'd)

CENTRAL POWER & LIGHT CO.

SARGENT & LUNDY ENGINEERS

PROJECT NUMBER 4857

BORING NO. W-5

SHEET 1 OF 2

PROJECT:	Coleto Creek Power Station
CLIENT:	Central Power & Light Co.
FEATURE:	Monitoring Well W-5
SURFACE ELEVATION:	119.57 Ft
TOTAL DEPTH:	71.5Ft
LOCATION:	N 30+07.7 E 31+50.6
DEPTH TO WATER DURING DRILLING:	40.0 Ft
DATE:	3-30-78
DRILLED BY:	Trinity Testing Laboratories, Inc.
LOGGED BY:	Sargent & Lundy
TESTED BY:	Trinity Testing Laboratories, Inc.

DEPTH (ft.)	SAMPLE NUMBER AND TYPE	BLOWS/6" ON SAMPLER (RECOVERY, %)	POCKET PENETROMETER MEASUREMENT (tsf.)	FIELD MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	OTHER TESTS	CORE RECOVERY (%)	RQD (%)	SYMBOLS	DESCRIPTION	DEPTH (ft.)	ELEVATION (ft., MSL)
0										SM	SAND, silty, brown (Topsoil)	0	119.57
										SC	SAND, clayey, medium to fine, brown.		119.07
	ST1	(75)		12.8			SA						
5	ST2	(83)										5	114.07
	ST3	(83)								CL	CLAY, silty, gray, with Caliche.		111.57
10	ST4	(83)								SC	SAND, clayey, brown, with layers of Caliche.	10	
										CL	CLAY, silty, yellow and white, with lenses and pockets of Caliche.		108.57
15	ST5	(78)		3.1			SA					18	104.57
										SP-SM	SAND, medium to fine, white.		
20	SS6	8-13-20 (100)					SA					20	
25	SS7	7-47-100/4.5 (100)								SC	SAND, clayey, calcareous, white. (Caliche)	25	93.57
30	SS8	6-13-31 (100)								SM-SC	SAND, silty and clayey, white, with lenses and seems of Caliche - grades to gray.	30	90.57
35	SS9	14-36-31 (100)					SA					35	
40	SS10	1-27-31 (100)									▽	40	79.57
										SM	SAND, silty, coarse to fine, white		79.07
45	SS11	16-67-100/5.5 (100)		34	15							45	73.57
										CL	CLAY, silty, gray, with seems of Caliche.		
50												50	

REVISION	DATE / APPROVED BY	DESCRIPTION
0	10-24-78 / D.G. Burkhalter	For Use

COLETO CREEK POWER STATION
LOG OF BORING W-5

CENTRAL POWER & LIGHT CO.

SARGENT & LUNDY ENGINEERS

PROJECT NUMBER 4857

BORING NO. W-5 (cont'd)

DEPTH (ft.)	SAMPLE NUMBER AND TYPE	BLOWS/6" ON SAMPLER (RECOVERY, %)	POCKET PENETROMETER MEASUREMENT (tsf)	FIELD MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	OTHER TESTS	CORE RECOVERY (%)	RQD (%)	SYMBOLS	DESCRIPTION	DEPTH (ft.)	ELEVATION (ft., MSL)
												0	69.57
50	SS12	72-100/1 (100)					SA			SM-SC	SAND, silty and clayey, calcareous, white, very dense. (Caliche)		
55	SS13	50-74-130/5.5 (100)								SM	SAND, silty, white.		66.57
60	SS14	100/3.5 (100)			18	14	SA			SM-SC	SAND, silty and clayey, calcareous, white and brown, very dense. (Caliche)		62.57
65	SS15	18-78-100/4.5 (100)								CL	CLAY, silty, brown.		53.57
70	SS16	9-17-21 (100)									END OF BORING - 71.5 Ft Groundwater encountered at 40.0 Ft. and rose to 32.5 Ft.		48.07
75													

REVISION	DATE / APPROVED BY	DESCRIPTION
0	10-24-78 / R.G. Bodiel	For Use

COLETO CREEK POWER STATION
LOG OF BORING W-5 (cont'd)

CENTRAL POWER & LIGHT CO.

SARGENT & LUNDY ENGINEERS

PROJECT NUMBER 4857

BORING NO. W-6

SHEET 1 OF 2

PROJECT:	Coleto Creek Power Station
CLIENT:	Central Power & Light Co.
FEATURE:	Monitoring Well W-6
SURFACE ELEVATION: 116.35 Ft	TOTAL DEPTH: 66.5 Ft
LOCATION: N 63+00 E 31+00	
DEPTH TO WATER DURING DRILLING: 38.0Ft	DATE: -31-78
DRILLED BY:	Trinity Testing Laboratories, Inc.
LOGGED BY:	Trinity Testing Laboratories, Inc.
TESTED BY:	Trinity Testing Laboratories, Inc.

DEPTH (ft.)	SAMPLE NUMBER AND TYPE	BLOWS/6" ON SAMPLER (RECOVERY, %)	POCKET PENETROMETER MEASUREMENT (tsf.)	FIELD MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	OTHER TESTS	CORE RECOVERY (%)	RQD (%)	SYMBOLS	DESCRIPTION	DEPTH (ft.)	ELEVATION (ft., MSL)
0												0	116.35
5	ST1	(64)		13.6	60	29	SA			SC	SAND, clayey, brown.		
	ST2	(86)									- grades to yellow-brown.	5	112.35
	ST3	(81)		13.2	32	21	SA				- grades to yellow with Caliche.		109.85
10	ST4	(78)								CL	CLAY, sandy, yellow-brown.		108.85
										SM-SC	SAND, silty and clayey, yellow and white with Caliche.	10	105.35
15	ST5	(69)		3.4		SA						15	
20	SS6	14-20-20 (100)										20	
25	SS7	9-22-28 (100)								SC	SAND, clayey, yellow-gray.	25	92.35
										SP-SM	SAND, coarse to fine, white to yellow.		90.35
30	SS8	8-16-26 (100)								SM	SAND, silty, trace gravel, white with layer of clayey sand.	30	87.35
35	SS9	9-41-100/5 (100)										35	
40	SS10	13-55-44 (100)										40	78.35
45	SS11	76-100/5 (100)		18	12					CL-ML	CLAY, silty and sandy, yellow gray.	45	73.85
50										SC	SAND, clayey, gray, with Caliche.	50	68.85

REVISION	DATE / APPROVED BY	DESCRIPTION
0	10-24-78 D.G.Borup	For Use

COLETO CREEK POWER STATION
LOG OF BORING W-6

CENTRAL POWER & LIGHT CO.

SARGENT & LUNDY ENGINEERS

PROJECT NUMBER 4857

BORING NO. W-6 (cont'd) SHEET 2 OF 2

DEPTH (ft.)	SAMPLE NUMBER AND TYPE	BLOWS/6" ON SAMPLER (RECOVERY, %)	POCKET PENETROMETER MEASUREMENT (tsf)	FIELD MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	OTHER TESTS	CORE RECOVERY (%)	ROD (%)	SYMBOLS	DESCRIPTION	DEPTH (ft.)	ELEVATION (ft., MSL)
50	SS12	11-21-57 (100)					SA			SC			66.35
55	SS13	21-100/ 55 (100)									- grades to yellow-gray.		58.85
60	SS14	37-100 (100)								SM-SC	SAND, silty and clayey, white.		55.35
										CL	CLAY, silty, gray-pink.		53.85
65	SS15	7-16-26 (100)									END OF BORING- 66.5 Ft Groundwater encountered at 38.0 Ft		49.85
70													

REVISION	DATE / APPROVED BY	DESCRIPTION
0	10-24-78 / D.G. Bodine	For Use

COLETO CREEK POWER STATION
LOG OF BORING W-6 (cont'd)

CENTRAL POWER & LIGHT CO.

SARGENT & LUNDY ENGINEERS

PROJECT NUMBER 4857

BORING NO. W-7

SHEET 1 OF 2

PROJECT:	Coleto Creek Power Station
CLIENT:	Central Power & Light Co.
FEATURE:	Monitoring Well W-7
SURFACE ELEVATION:	126.99 Ft — TOTAL DEPTH: 75.13 Ft
LOCATION:	N 79+20 E 19+00
DEPTH TO WATER DURING DRILLING:	35.0 Ft — DATE: 4-4-78
DRILLED BY:	Trinity Testing Laboratories, Inc.
LOGGED BY:	Trinity Testing Laboratories, Inc.
TESTED BY:	Trinity Testing Laboratories, Inc.

DEPTH (ft.)	SAMPLE NUMBER AND TYPE	BLOWS/6" ON SAMPLER (RECOVERY, %)	POCKET PENETROMETER MEASUREMENT (tsf.)	FIELD MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	OTHER TESTS	CORE RECOVERY (%)	RQD (%)	SYMBOLS	DESCRIPTION
0	ST1	(89)		10.9	45	21	SA			SC	SAND, clayey, medium to fine, brown
5	ST2	(96)									- grades to yellow with layers of Caliche.
	ST3	(78)		12.8	41	20	SA				- grades to brown.
10	ST4	(86)									- grades to yellow.
15	ST5			9.1			SA			SM	SAND, silty, coarse to fine, trace gravel, white.
										SC	SAND, clayey, yellow, with Caliche.
20	SS6	3-6-26 (100)					SA			SM	SAND, silty, coarse to fine, yellow.
										SC	SAND, clayey, gray, with Caliche.
25	SS7	14-51-68 (100)									
30	SS8	8-37-52 (100)									
35	SS9	8-13-19 (100)			28	15	SA				
40	SS10	7-37-43 (100)									
										SM	SAND, silty, medium to fine, white.
45	SS11	12-26-26 (100)					SA				
50											

DEPTH (ft.)	ELEVATION (ft., MSL)
0	126.99
5	123.49
	119.99
10	117.49
15	110.99
	108.99
20	105.99
	103.99
25	
30	
35	91.99
40	
	84.49
45	
50	

REVISION	DATE / APPROVED BY	DESCRIPTION
0	10-24-78 / D.G. Bodily	For Use

COLETO CREEK POWER STATION
LOG OF BORING W-7

CENTRAL POWER & LIGHT CO.

SARGENT & LUNDY ENGINEERS

PROJECT NUMBER 4857

BORING NO. W-7 (cont'd)

DEPTH (ft.)	SAMPLE NUMBER AND TYPE	BLOWS/6" ON SAMPLER (RECOVERY, %)	POCKET PENETROMETER MEASUREMENT (tsf)	FIELD MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	OTHER TESTS	CORE RECOVERY (%)	RQD (%)	SYMBOLS	DESCRIPTION	DEPTH (ft.)	ELEVATION (ft., MSL)
50	SS12	15-16-50 (100)								SC	SAND, clayey.	50.00	76.99
												50.50	76.49
55	SS13	10-21-29 (100)								SM	SAND, silty, coarse to fine, with and without little gravel, white.	55.00	71.49
60	SS14	19-42-73 (100)					SA						
65	SS15	17-100/5 (0)									- cemented layer.	65.00	61.49
70	SS16	100/2.5 (0)								CL	CLAY, silty, gray, very hard:	70.00	55.99
75	SS17	100/1.5 (0)									END OF BORING - 75.13 Ft Groundwater encountered at 35.0 Ft.	75.13	51.86
80													

REVISION	DATE / APPROVED BY	DESCRIPTION
0	10-24-78 D.G. Borland	For Use

COLETO CREEK POWER STATION
LOG OF BORING W-7 (cont'd)

CENTRAL POWER & LIGHT CO.

SARGENT & LUNDY ENGINEERS

PROJECT NUMBER 4857

BORING NO. W-8

SHEET 1 OF 2

PROJECT:	Coleto Creek Power Station
CLIENT:	Central Power & Light Co.
FEATURE:	Monitoring Well W-8
SURFACE ELEVATION: 131.78 Ft	TOTAL DEPTH: 81.5 Ft
LOCATION: N 65+00 W 2+00	
DEPTH TO WATER DURING DRILLING: 42.0Ft	DATE: 3-30-78
DRILLED BY: Trinity Testing Laboratories, Inc.	
LOGGED BY: Sargent & Lundy	
TESTED BY: Trinity Testing Laboratories, Inc.	

DEPTH (ft.)	SAMPLE NUMBER AND TYPE	BLOWS/6" ON SAMPLER (RECOVERY, %)	POCKET PENETROMETER MEASUREMENT (tsf.)	FIELD MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	OTHER TESTS	CORE RECOVERY (%)	RQD (%)	SYMBOLS	DESCRIPTION	DEPTH (ft.)	ELEVATION (ft., MSL)
0										SC	SAND, clayey, medium to fine, brown.	0	131.78
5	ST1	(92)		7.2	33	15	SA					5	
	ST2	(97)											
	ST3	(77)		16.8	48	18	SA			CL	CLAY, silty, and sandy, calcareous, white, (Caliche)		124.78
10	ST4	(94)										10	
15	ST5	(96)		8.4			SA			SC	SAND, clayey, medium to fine, calcureous light brown to white.	15	116.78
20	SS6	6-9-12 (100)								SM	SAND, silty, medium to fine, light brown to gray.	20	111.78
25	SS7	11-28-42 (100)										25	
30	SS8	100/6.5 (100)					SA					30	
35	SS9	30-25-86 (100)								CL	CLAY, silty, brown.	35	95.78
										SC	SAND, clayey calcareous, white. (Caliche)		95.28
										SP-SM	SAND, coarse to fine, brown		94.78
40	SS10	6-14-22 (100)					SA			SC	SAND, clayey, coarse to fine, gray.	40	91.78
											▽		89.78
45	SS11	-23-26 (100)					SA			SM	SAND, silty, gray, with clayey sand layers.	45	87.78
50												50	

REVISION	DATE / APPROVED BY	DESCRIPTION
0	10-24-78 / DG Ewing	For Use

COLETO CREEK POWER STATION
LOG OF BORING W-8

CENTRAL POWER & LIGHT CO.

SARGENT & LUNDY ENGINEERS

PROJECT NUMBER 4857

BORING NO. W-8 (cont'd) SHEET 2 OF 2

DEPTH (ft.)	SAMPLE NUMBER AND TYPE	BLOWS/6" ON SAMPLER (RECOVERY, %)	POCKET PENETROMETER MEASUREMENT (tsf)	FIELD MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	OTHER TESTS	CORE RECOVERY (%)	RQD (%)	SYMBOLS	DESCRIPTION	DEPTH (ft.)	ELEVATION (ft., MSL)
50	SS12	43-100/1 (100)								SM			81.78
55	SS13	30-47-96 (100)								SC	SAND, clayey, gray, vary hard.		74.78
60	SS14	100/3 (100)					SA						
65	SS15	100/1 (100)											
70	SS16	28-47-52 (100)			45	20	SA			CL	CLAY, silt, light brown to white with Caliche, very hard.		64.78
75	SS17	17-54-41 (100)											
80	SS18	14-36-50 (100)									END OF BORING - 31.5 Ft Groundwater encountered at 42.0 Ft		50.28
85													

REVISION	DATE / APPROVED BY	DESCRIPTION
0	10-24-78 D.G. Boring	For Use

COLETO CREEK POWER STATION
LOG OF BORING W-8 (cont'd)

CENTRAL POWER & LIGHT CO.

SARGENT & LUNDY ENGINEERS

PROJECT NUMBER 4857

BORING NO. TB-1

SHEET 1 OF 1

PROJECT:	Coleto Creek Power Station
CLIENT:	Central Power & Light Co.
FEATURE:	Ash Pond In-situ Lining
SURFACE ELEVATION:	130.38 Ft — TOTAL DEPTH: 16.5 Ft
LOCATION:	N 26+00 E 13+00
DEPTH TO WATER DURING DRILLING:	Dry — DATE: 3-22-79
DRILLED BY:	Trinity Testing Laboratories, Inc.
LOGGED BY:	Sargent & Lundy
TESTED BY:	Trinity Testing Laboratories, Inc.

DEPTH (ft.)	SAMPLE NUMBER AND TYPE	BLOWS/6" ON SAMPLER (RECOVERY, %)	POCKET PENETROMETER MEASUREMENT (tsf.)	FIELD MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	OTHER TESTS	CORE RECOVERY (%)	RQD (%)	SYMBOLS	DESCRIPTION	DEPTH (ft.)	ELEVATION (ft., MSL)
0	ST 1	(76)		10.1	34	19	SA,P			SC	SAND, clayey, medium to fine, brown with seems of gray fine sand.	0	130.38
	ST 2	(75)			34	17	SA				- grades to gray with no seems.		127.88
5	ST 3	(91)		13.4	40	20	SA,P					5	
	ST 4	(81)											
10	ST 5	(88)			41	14	SA				- grades to light gray.	10	
													117.38
15	ST 6	(97)									END OF BORING - 16.5 Feet. Groundwater not encountered.	15	113.88
20												20	
25												25	
30												30	
35												35	
40												40	
45												45	
50												50	

REVISION	DATE / APPROVED BY	DESCRIPTION
0	12-24-79 / D G Brown	For Use

COLETO CREEK POWER STATION

LOG OF BORING TB-1

CENTRAL POWER & LIGHT CO.

SARGENT & LUNDY ENGINEERS

PROJECT NUMBER 4857

BORING NO. TB-2

SHEET 1 OF 1

PROJECT: Coleto Creek Power Station
CLIENT: Central Power & Light Co.
FEATURE: Ash Pond In-situ Lining
SURFACE ELEVATION: 117.60 feet | TOTAL DEPTH: 11.5 Ft
LOCATION: N 384+00 E 8+00
DEPTH TO WATER DURING DRILLING: Dry | DATE: 3-23-78
DRILLED BY: Trinity Testing Laboratories, Inc.
LOGGED BY: Sargent & Lundy
TESTED BY: Trinity Testing Laboratories, Inc.

DEPTH (ft.)	SAMPLE NUMBER AND TYPE	BLOWS/6" ON SAMPLER (RECOVERY, %)	POCKET PENETROMETER MEASUREMENT (tsf.)	FIELD MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	OTHER TESTS	CORE RECOVERY (%)	RQD (%)	SYMBOLS	DESCRIPTION
0	ST 1	(72)			74	23	SA, P			CH	CLAY, sandy, brown
	ST 2	(67)		9.8	36	18	SA			SC	SAND, clayey, medium to fine, brown.
5	ST 3	(89)			37	20	SA				- grade to coarse to fine.
	ST 4	(33)								SP-SM	SAND, coarse to fine, trace silt, brown.
10	ST 5	(42)									END OF BORING - 11.5 Ft Groundwater not encountered.

DEPTH (ft.)	ELEVATION (ft., MSL)
0	117.60
5	112.60
10	106.10

REVISION	DATE / APPROVED BY	DESCRIPTION
0	5-24-78 / D. G. Brandt	For Use

COLETO CREEK POWER STATION
LOG OF BORING TB-2

CENTRAL POWER & LIGHT CO.

SARGENT & LUNDY ENGINEERS

PROJECT NUMBER 4857

BORING NO. TB-3

SHEET 1 OF 1

PROJECT:	Coleto Creek Power Station
CLIENT:	Central Power & Light Co.
FEATURE:	Ash Pond In-situ Lining
SURFACE ELEVATION: 122.80 Ft	TOTAL DEPTH: 16.5 Ft
LOCATION: N 41 + 00 E 19 + 00	
DEPTH TO WATER DURING DRILLING: Dry	DATE: 3-21-75
DRILLED BY:	Trinity Testing Laboratories, Inc.
LOGGED BY:	Sargent & Lundy
TESTED BY:	Trinity Testing Laboratories, Inc.

DEPTH (ft.)	SAMPLE NUMBER AND TYPE	BLOWS/6" ON SAMPLER (RECOVERY, %)	POCKET PENETROMETER MEASUREMENT (tsf.)	FIELD MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	OTHER TESTS	CORE RECOVERY (%)	RQD (%)	SYMBOLS	DESCRIPTION	DEPTH (ft.)	ELEVATION (ft., MSL)
0	ST 1	(83)			45	17	SA			ML	SILT, sandy, brown.	0	122.80
	ST 2	(89)		11.2	40	19	SA			SC	SAND, clayey, medium to fine, gray and brown.		122.30
5	ST 3	(88)		10.9	40	19	SA,P					5	
	ST 4	(88)			41	16	SA						
10	ST 5	(97)									- grade to coarse to fine, white and brown.	10	112.80
15	ST 6	(97)									END OF BORING - 16.5 Ft Groundwater not encountered.	15	106.3
20												20	
25												25	
30												30	
35												35	
40												40	
45												45	
50												50	

REVISION	DATE / APPROVED BY	DESCRIPTION
0	11-24-78 D.E.B.	For Use

COLETO CREEK POWER STATION

LOG OF BORING TB-3

CENTRAL POWER & LIGHT CO.

SARGENT & LUNDY ENGINEERS

PROJECT NUMBER 4857

BORING NO. TB-4

SHEET 1 OF 1

PROJECT:	Coleto Creek Power Station
CLIENT:	Central Power & Light Co.
FEATURE:	Ash Pond In-situ Lining
SURFACE ELEVATION: 121.34 Ft	TOTAL DEPTH: 16.5 Ft
LOCATION: N 59 +00 E 12 +00	
DEPTH TO WATER DURING DRILLING: Dry	DATE: 3-23-78
DRILLED BY:	Trinity Testing Laboratories, Inc.
LOGGED BY:	Sargent & Lundy
TESTED BY:	Trinity Testing Laboratories, Inc.

DEPTH (ft.)	SAMPLE NUMBER AND TYPE	BLOWS/6" ON SAMPLER (RECOVERY, %)	POCKET PENETROMETER MEASUREMENT (tsf.)	FIELD MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	OTHER TESTS	CORE RECOVERY (%)	RQD (%)	SYMBOLS	DESCRIPTION	DEPTH (ft.)	ELEVATION (ft., MSL)
0	ST 1	(72)								SP	SAND, coarse to fine, light brown.	0	121.34
	ST 2	(75)		13.240		18	SA, P			SC	SAND, clayey, medium to fine, brown.		120.84
5	ST 3	(91)					SA					5	
	ST 4	(83)		11.237		18	SA				- grades to calcareous, coarse to fine, white. (Caliche).		113.84
10	ST 5	(78)									- grades to brown with pockets of caliche.	10	
													108.84
										SP	SAND, coarse to fine, trace gravel, white.		107.34
15	ST 6	(44)									END OF BORING - 16.5 Ft Groundwater not encountered.	15	104.84
20												20	
25												25	
30												30	
35												35	
40												40	
45												45	
50												50	

REVISION	DATE / APPROVED BY	DESCRIPTION
0	10-24-78 / D.E.B. Wood	For Use

COLETO CREEK POWER STATION
LOG OF BORING TB-4

CENTRAL POWER & LIGHT CO.

SARGENT & LUNDY ENGINEERS

PROJECT NUMBER 4857

BORING NO. TB-5

SHEET 1 OF 1

PROJECT: Coleto Creek
CLIENT: Central Power & Light Co.
FEATURE: Evaporation Pond In-situ Lining
SURFACE ELEVATION: 125.03 Ft | TOTAL DEPTH: 11.5 Ft
LOCATION: N 46 + 35.4 E 0 + 21.5
DEPTH TO WATER DURING DRILLING: Dry | DATE: 3-21-78
DRILLED BY: Trinity Testing Laboratories, Inc.
LOGGED BY: Sargent & Lundy
TESTED BY: Trinity Testing Laboratories, Inc.

DEPTH (ft.)	SAMPLE NUMBER AND TYPE	BLOWS/6" ON SAMPLER (RECOVERY, %)	POCKET PENETROMETER MEASUREMENT (tsf.)	FIELD MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	OTHER TESTS	CORE RECOVERY (%)	ROD (%)	SYMBOLS	DESCRIPTION	DEPTH (ft.)	ELEVATION (ft., MSL)
0	ST 1	(89)			30	14	SA			SC	SAND, clayey, coarse to fine, brown and gray.	0	125.03
	ST 2	(100)			29	14	SA						
5	ST 3	(89)									- grades to gray and white.	5	119.03
	ST 4	(97)		15.7	44	18	SA,P						
10	ST 5	(100)								SP	SAND, medium to fine, white.	10	114.53
											END OF BORING - 11.5 Ft		113.53
											Groundwater not encountered.		
15												15	
20												20	
25												25	
30												30	
35												35	
40												40	
45												45	
50												50	

REVISION	DATE / APPROVED BY	DESCRIPTION
0	10-24-78 / D. E. Bowling	For Use

COLETO CREEK POWER STATION
LOG OF BORING TB-5

CENTRAL POWER & LIGHT CO.

SARGENT & LUNDY ENGINEERS

PROJECT NUMBER 4857

BORING NO. TB-6

SHEET 1 OF 1

PROJECT: Coleto Creek Power Station	
CLIENT: Central Power & Light Co.	
FEATURE: Evaporation Pond In-situ Lining	
SURFACE ELEVATION: 124.21 Ft	TOTAL DEPTH: 11.5 Ft
LOCATION: N 61 + 00 E 1 + 00	
DEPTH TO WATER DURING DRILLING: Dry	DATE: 3-21-78
DRILLED BY: Trinity Testing Laboratories, Inc.	
LOGGED BY: Sargent & Lundy	
TESTED BY: Trinity Testing Laboratories, Inc.	

DEPTH (ft.)	SAMPLE NUMBER AND TYPE	BLOWS/6" ON SAMPLER (RECOVERY, %)	POCKET PENETROMETER MEASUREMENT (tsf.)	FIELD MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	OTHER TESTS	CORE RECOVERY (%)	ROD (%)	SYMBOLS	DESCRIPTION	DEPTH (ft.)	ELEVATION (ft., MSL)
0	ST 1	(89)			49	21	SA			SC	SAND, clayey, coarse to fine, trace gravel, light brown to white.	0	124.21
	ST 2	(50)								CL	CLAY, sandy, calcareous, white. (Calache)		122.71
5	ST 3	(100)		15.8	36	17	SA				- grades to some coarse to fine sand.	5	119.21
	ST 4	(100)											
10	SS5	33-44-39 (100)									END OF BORING - 11.5 Ft Groundwater not encountered.	10	112.71
15												15	
20												20	
25												25	
30												30	
35												35	
40												40	
45												45	
50												50	

REVISION	DATE / APPROVED BY	DESCRIPTION
0	6-24-78 D.L. Kinard	For Use

COLETO CREEK POWER STATION
LOG OF BORING TB-6

CENTRAL POWER & LIGHT CO.

SARGENT & LUNDY ENGINEERS

PROJECT NUMBER 4857

BORING NO. TB-7

SHEET 1 OF 1

PROJECT: Coleto Creek Power Station
CLIENT: Central Power & Light Co.
FEATURE: Evaporation Pond In-situ Lining
SURFACE ELEVATION: 124.14 Ft | TOTAL DEPTH: 11.5 Ft
LOCATION: N 73 + 50 E 3 + 00
DEPTH TO WATER DURING DRILLING: Dry | DATE: 3-21-78
DRILLED BY: Trinity Testing Laboratories, Inc.
LOGGED BY: Sargent & Lundy
TESTED BY: Trinity Testing Laboratories, Inc.

DEPTH (ft.)	SAMPLE NUMBER AND TYPE	BLOWS/6" ON SAMPLER (RECOVERY, %)	POCKET PENETROMETER MEASUREMENT (tsf.)	FIELD MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	OTHER TESTS	CORE RECOVERY (%)	RQD (%)	SYMBOLS	DESCRIPTION	DEPTH (ft.)	ELEVATION (ft., MSL)
0	ST 1	(83)			45	18	SA			SC	SAND, clayey, coarse to fine, light brown.	0	124.14
	ST 2	(88)		12.9	41	10	SA,P			CL	CLAY, silty, and medium to fine sand, light brown.		122.64
5	ST 3	(94)										5	118.14
	ST 4									SC	SAND, clayey, coarse to fine, light brown to light gray. - grades to white. - grades to trace of gravel.		
10	ST 5	(94)					SA				END OF BORING - 11.5 Ft Groundwater not encountered.	10	112.64
15												15	
20												20	
25												25	
30												30	
35												35	
40												40	
45												45	
50												50	

REVISION	DATE / APPROVED BY	DESCRIPTION
0	10-24-78 D.G. Boyd	For Use

COLETO CREEK POWER STATION
LOG OF BORING TB-7

CENTRAL POWER & LIGHT CO.

SARGENT & LUNDY ENGINEERS

PROJECT NUMBER 4857

BORING NO. TB-8

SHEET 1 OF 1

PROJECT:	Coleto Creek Power Station
CLIENT:	Central Power & Light Co.
FEATURE:	Evaporation Pond In-situ Lining
SURFACE ELEVATION:	124.13 Ft — TOTAL DEPTH: 11.5 Ft
LOCATION:	N 75 + 50 E 21 + 00
DEPTH TO WATER DURING DRILLING:	Dry — DATE: 3-21-78
DRILLED BY:	Trinity Testing Laboratories, Inc.
LOGGED BY:	Sargent & Lundy
TESTED BY:	Trinity Testing Laboratories, Inc.

DEPTH (ft.)	SAMPLE NUMBER AND TYPE	BLOWS/6" ON SAMPLER (RECOVERY, %)	POCKET PENETROMETER MEASUREMENT (tsf.)	FIELD MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	OTHER TESTS	CORE RECOVERY (%)	RQD (%)	SYMBOLS	DESCRIPTION	DEPTH (ft.)	ELEVATION (ft., MSL)
0	ST 1	(89)				NP	PC SA			CL	CLAY, sandy, trace gravel, brown.	0	124.13
										SM	SAND, silty, trace gravel, brown.		123.13
	ST 2	(92)								CL	CLAY, sandy, calcareous, trace gravel, brown to white. (Caliche)		122.63
5	ST 3	(69)			30	15	SA					5	
	ST 4	(100)								SC	SAND, clayey, calcareous, white. (Calache).		116.63
10	ST 5	(89)									END OF BORING - 11.5 Ft Groundwater not encountered	10	112.63
15												15	
20												20	
25												25	
30												30	
35												35	
40												40	
45												45	
50												50	

REVISION	DATE / APPROVED BY	DESCRIPTION
0	12-24-78 / D.A. Lundy	For Use

COLETO CREEK POWER STATION
LOG OF BORING TB-8

CENTRAL POWER & LIGHT CO.

SARGENT & LUNDY ENGINEERS

PROJECT NUMBER 4857

BORING NO. TB-9

SHEET 1 OF 1

PROJECT:	Coleto Creek Power Station
CLIENT:	Central Power & Light Co.
FEATURE:	Evaporation Pond In-situ Lining
SURFACE ELEVATION:	124.23 Ft — TOTAL DEPTH: 11.5 Ft
LOCATION:	N 64 + 50 E 19 + 50
DEPTH TO WATER DURING DRILLING:	Dry — DATE: 3-21-78
DRILLED BY:	Trinity Testing Laboratories, Inc.
LOGGED BY:	~~Sargent & Lundy~~
TESTED BY:	Trinity Testing Laboratories, Inc.

DEPTH (ft.)	SAMPLE NUMBER AND TYPE	BLOWS/6" ON SAMPLER (RECOVERY, %)	POCKET PENETROMETER MEASUREMENT (tsf.)	FIELD MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	OTHER TESTS	CORE RECOVERY (%)	RQD (%)	SYMBOLS	DESCRIPTION	DEPTH (ft.)	ELEVATION (ft., MSL)
0	ST 1	(92)			46	21	SA, P			SC	SAND, clayey, coarse to fine, brown.	0	124.23
	ST 2	(69)			46	13	SA				- grades to medium to fine brown and gray.		
5	ST 3	(88)										5	118.23
	ST 4	(80)								SM	SAND, silty, trace gravel and clay, gray.		
10	ST 5	(92)									- grades to trace organic material and roots, gray to black.	10	115.73
										SC	SAND, clayey, calcareous, trace gravel, white.		112.73
15											END OF BORING- 11.5 Ft Groundwater not encountered	15	
20												20	
25												25	
30												30	
35												35	
40												40	
45												45	
50												50	

REVISION	DATE / APPROVED BY	DESCRIPTION
0	11-24-78 / DG Brown	For Use

COLETO CREEK POWER STATION
LOG OF BORING TB-9

CENTRAL POWER & LIGHT CO.

SARGENT & LUNDY ENGINEERS

PROJECT NUMBER 4857

BORING NO. TB-10

SHEET 1 OF 1

PROJECT: Coleto Creek Power Station
CLIENT: Central Power & Light Co.
FEATURE: Cool Pile Area
SURFACE ELEVATION: 118.43 Ft | TOTAL DEPTH: 11.5 Ft
LOCATION: N 13 + 00 W 11 + 00
DEPTH TO WATER DURING DRILLING: Dry | DATE: 3-23-78
DRILLED BY: Trinity Testing Laboratories, Inc.
LOGGED BY: Sargent & Lundy
TESTED BY: Trinity Testing Laboratories, Inc.

DEPTH (ft.)	SAMPLE NUMBER AND TYPE	BLOWS/6" ON SAMPLER (RECOVERY, %)	POCKET PENETROMETER MEASUREMENT (tsf.)	FIELD MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	OTHER TESTS	CORE RECOVERY (%)	ROD (%)	SYMBOLS	DESCRIPTION
0										GW	GRAVEL, sandy, (stockpile)
	ST 1	(94)								SC	SAND, clayey, medium to fine, light brown.
5	ST 2	(94)		12.1	46	19	SA, P				
	ST 3	(94)			59	18	SA.				
10	ST 4	(97)									- grades to light gray.
											END OF BORING - 11.5 Ft
											Groundwater not encountered.
15											
20											
25											
30											
35											
40											
45											
50											

DEPTH (ft.)	ELEVATION (ft., MSL)
0	118.43
	117.43
5	
10	108.43
	106.93
15	
20	
25	
30	
35	
40	
45	
50	

REVISION	DATE / APPROVED BY	DESCRIPTION
0	12-24-78 / D.C. Bishop	For Use

COLETO CREEK POWER STATION
LOG OF BORING TB-10

CENTRAL POWER & LIGHT CO.

SARGENT & LUNDY ENGINEERS

PROJECT NUMBER 4857

BORING NO. TB-11

SHEET 1 OF 1

PROJECT:	Coleto Creek Power Station
CLIENT:	Central Power & Light Co.
FEATURE:	Coal Pile Area
SURFACE ELEVATION: 117.6 Ft	TOTAL DEPTH: 11.5 Ft
LOCATION:	N 15 + 00, W 5 + 25
DEPTH TO WATER DURING DRILLING: Dry	DATE: 3-24-78
DRILLED BY:	Trinity Testing Laboratories, Inc.
LOGGED BY:	Sargent & Lundy
TESTED BY:	Trinity Testing Laboratories, Inc.

DEPTH (ft.)	SAMPLE NUMBER AND TYPE	BLOWS/6" ON SAMPLER (RECOVERY, %)	POCKET PENETROMETER MEASUREMENT (tsf.)	FIELD MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	OTHER TESTS	CORE RECOVERY (%)	ROD (%)	SYMBOLS	DESCRIPTION	DEPTH (ft.)	ELEVATION (ft., MSL)
0												0	117.6
5	ST 1	(75)		12.0	35	17	SA			SC	SAND, clayey, medium to fine, light brown and gray. (fill)	5	115.10
	ST 2	(88)									- grades to trace finegravel.		
	ST 3	(92)			42	16	SA						
10	ST 4	(89)					SA				END OF BORING - 11.5 Ft Groundwater not encountered.	10	106.10
15												15	
20												20	
25												25	
30												30	
35												35	
40												40	
45												45	
50												50	

REVISION	DATE / APPROVED BY	DESCRIPTION
0	11-24-78 / D.C. Brown	For Use

COLETO CREEK POWER STATION
LOG OF BORING TB-11

CENTRAL POWER & LIGHT CO.

SARGENT & LUNDY ENGINEERS

PROJECT NUMBER 4857

BORING NO. TB-12

SHEET 1 OF 1

PROJECT:	Coleto Creek Power Station
CLIENT:	Central Power & Light Co.
FEATURE:	Cool Pile Area
SURFACE ELEVATION: 124.07 Ft	TOTAL DEPTH: 16.5 Ft
LOCATION:	N 19 + 00 W 9 00
DEPTH TO WATER DURING DRILLING:	DATE: 3-24-78
DRILLED BY:	Trinity Testing Laboratories, Inc.
LOGGED BY:	Sargent & Lundy
TESTED BY:	Trinity Testing Laboratories, Inc.

DEPTH (ft.)	SAMPLE NUMBER AND TYPE	BLOWS/6" ON SAMPLER (RECOVERY, %)	POCKET PENETROMETER MEASUREMENT (tsf.)	FIELD MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	OTHER TESTS	CORE RECOVERY (%)	ROD (%)	SYMBOLS	DESCRIPTION
0	ST 1	(100)					SA			SC	SAND, clayey, some gravel, redish brown.
	ST 2	(0)									- grades to trace gravel, white.
5	ST 3	(75)			30	12	SA				- grades to no gravel, brown.
	ST 4	(97)			36	19	SA, P				
10	ST 5	(94)									
15	ST 6	(86)									END OF BORING - 16.5 Ft Groundwater not encountered.
20											
25											
30											
35											
40											
45											
50											

DEPTH (ft.)	ELEVATION (ft., MSL)
0	124.07
1	123.07
5	119.07
10	
15	107.5
20	
25	
30	
35	
40	
45	
50	

REVISION	DATE / APPROVED BY	DESCRIPTION
0	10-24-78 / R E Smith	For Use

COLETO CREEK POWER STATION
LOG OF BORING TB-12

CENTRAL POWER & LIGHT CO.

SARGENT & LUNDY ENGINEERS

PROJECT NUMBER 4857

KEY TO CLASSIFICATION USED ON LOGS

MAJOR DIVISIONS			GROUP SYMBOLS	DESCRIPTIONS
COARSE-GRAINED SOILS: More Than Half of Material is LARGER Than No. 200 Sieve Size.	GRAVELS: More Than Half of Coarse Fraction is LARGER Than No. 4 Sieve Size.	Clean Gravels (Little or no Fines)	GW	Well-Graded Gravels, Gravel-Sand Mixtures, Little or no Fines.
			GP	Poorly-Graded Gravels, Gravel-Sand Mixtures, Little or no Fines.
		Gravels With Fines (Appreciable Amount of Fines)	GM	Silty Gravels, Gravel-Sand-Silt Mixtures.
			GC	Clayey Gravels, Gravel-Sand-Clay Mixtures.
	SANDS: More Than Half of Coarse Fraction is SMALLER Than No. 4 Sieve Size.	Clean Sands (Little or no Fines)	SW	Well-Graded Sands, Gravelly Sands, Little or no Fines.
			SP	Poorly-Graded Sands, Gravelly Sands, Little or no Fines.
		Sands With Fines (Appreciable Amount of Fines)	SM	Silty Sands, Sand-Silt Mixtures.
			SC	Clayey Sands, Sand-Clay Mixtures.
FINE-GRAINED SOILS: More Than Half of Material is SMALLER Than No. 200 Sieve Size.	SILTS and CLAYS: Liquid Limit Less Than 50		ML	Inorganic Silts & Very Fine Sands, Rock Flour, Silty or Clayey Fine Sands or Clayey Silts with Slight Plasticity.
			CL	Inorganic Clays of Low to Medium Plasticity, Gravelly Clays, Sandy Clays, Silty Clays, Lean Clays.
			OL	Organic Silts & Organic Silty Clays of Low Plasticity.
	SILTS and CLAYS: Liquid Limit Greater Than 50		MH	Inorganic Silts, Micaceous or Diatomaceous Fine Sand or Silty Soils, Elastic Silts.
			CH	Inorganic Clays of High Plasticity, Fat Clays.
			OH	Organic Clays of Medium to High Plasticity, Organic Silts.
Highly Organic Soils			Pt	Peat & Other Highly Organic Soils

Ref. (Unified Soil Classification System) Corps of Engineers, U.S. ARMY, T.M. NO. 3-357

LOG OF BORING FOR Coleto Creek Power Station

Sheet 1 of 2

DATE: April 13, 1976
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. CH-1
LOCATION: See Plat

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample Number	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION
					Ground surface elevation = 114.6			
					Brown silty sand (SM)			113.1
5		X	28	J-1	Light gray and tan clayey sand (SC)			
10		X	34	J-2				102.6
15		X	73	J-3	Light gray and tan clayey sand w/scattered gravel (SC)			97.1
								96.6
20		X	66	J-4	Tan sand and gravel (SP)			
		X	19	J-5	Light gray and tan clayey sand w/scattered gravel (SC)			90.6
25					Tan and yellowish tan silty sand (SM)			
30		X	19	J-6				
35		X	22	J-7				77.6
40		X	69	J-8	Tan sand, coarse grained w/scattered gravel (SP)			74.6

Continued on next page

LOG OF BORING
FOR
Coleto Creek Power Station

Sheet 2 of 2

DATE: April 13, 1976
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. CH-1, Cont'd
LOCATION: See Plat

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample Number	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Tan sand, coarse grained w/scattered gravel (SP)			72.6	
45			100	J-9	55/6", 45/1" Light gray and tan clayey sand w/caliche particles (SC)				
50			74	J-10					
55			100	J-11	60/6", 40/2-1/2"				
60			100	J-12	50/6", 50/6"			54.6	

Total depth of boring - 60.0 feet

NOTES:

Project No. 4857

Boring Started: 4/12/76 - 1:00 p.m.

Boring Completed: 4/12/76 - 4:30 p.m.

Driller: Joe Castleberry

WATER OBSERVATIONS

Drilling fluid was used from the ground surface down and did not disperse.

LOG OF BORING FOR Coleto Creek Power Station

Sheet 1 of 2

DATE: April 13, 1976
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. CH-2
LOCATION: See Plat

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample Number	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground surface elevation 115.7				
					Brown silty sand (SM)			114.2	
5			24	J-1	Light gray clayey sand w/white calcium nodules (SC)				
10			28	J-2				103.7	
15			58	J-3	Light gray and tan clayey sand w/calcareous nodules and yellowish tan sand (SC)				
20			48	J-4				94.7	
								93.7	
					Light gray clay (CH)				
25			22	J-5					
30			11	J-6	Light gray and tan silty sand w/scattered caliche particles (SM)			82.2	
								81.7	
35			22	J-7	Yellow and gray clay (CH)				
40			30	J-8	Tan sand w/scattered gravel and yellowish tan clayey sand lenses (SP)			75.7	

Continued on next page

LOG OF BORING
FOR
Coleto Creek Power Station

Sheet 2 of 2

DATE: April 13, 1976
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. CH-2, Cont'd
LOCATION: See Plat

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample Number	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Tan sand w/scattered gravel and yellowish tan clayey sand lenses (SP)			72.7	
45			100	J-9	100/6" Tan sand w/gravel and yellowish tan clay lenses (SP)				
50			100	J-10	30/6", 70/6"			65.7	

Total depth of boring = 50.0 feet

NOTES:

Project No. 4857

Boring Started: 4/13/76 - 2:00 p.m.

Boring Completed: 4/13/76 - 4:30 p.m.

Driller: Joe Castleberry

WATER OBSERVATIONS

Drilling fluid was used from the ground surface down and the fluid did not disperse.

LOG OF BORING FOR Coleto Creek Power Station

Sheet 1 of 1

DATE: April 14, 1976
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. CH-3
LOCATION: See Plat

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample Number	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION
					Ground surface elevation = 113.0			
					Brown silty sand (SM)			112.0
5		X	33	J-1	Tan clayey sand (SC)			105.5
10		X	26	J-2	Tan clay lense (CH)			
15		X	45	J-3	Light tan sand, coarse grained, w/scattered gravel and caliche particles (SP)			
20		X	47	J-4				
25		X	25	J-5				
30		X	24	J-6				83.0

Total depth of boring = 30.0 feet

NOTES:

Project No. 4857
Boring Started: 4/14/76 - 10:30 a.m.
Boring Completed: 4/14/76 - 12:00 p.m.
Driller: Joe Castleberry

WATER OBSERVATIONS

Drilling fluid was used from the ground surface down and did not disperse.

LOG OF BORING
FOR
Coleto Creek Power Station

Sheet 1 of 3

DATE: April 13, 1976
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. CH-4
LOCATION: See Plat

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample Number	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION
					Ground surface elevation = 120.6			
					Brown silty sand (SM)			119.6
5			27	J-1	Tan clayey sand w/red streaks (SC)			111.6
10			22	J-2	Tan silty sand w/scattered clayey sand lenses (SM)			
15			37	J-3				102.6
20			49	J-4	Light gray and tan sand w/scattered gravel (SP)			98.6
25			30	J-5	Tan and light gray silty sand (SM)			
30			28	J-6				87.1
35			17	J-7	Light gray clayey sand (SC)			
					Tan and light gray silty sand (SM)			
40			23	J-8				80.6

Continued on next page

TRINITY TESTING LABORATORIES, INC.

LOG OF BORING FOR

Coleto Creek Power Station

Sheet 2 of 3

DATE: April 13, 1976
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. CH-4, Cont'd
LOCATION: See Plat

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample Number	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Tan and light gray silty sand (SM)			77.6	
45			100	J-9	51/6", 49/5-1/2"				
					Tan sand, coarse grained, w/gravel (SP)				
50			100	J-10	100/5-1/2" Began drilling 4/14/76			68.2	
55			67	J-11	Light gray and tan clayey sand w/caliche and scattered gravel (SC)			62.1	
60			57	J-12	Tan and light tan clay w/scattered black specks (CH)				
65			60	J-13					
70			49	J-14					
75				S-1					
80				S-2				40.6	

Continued on next page

TRINITY TESTING LABORATORIES, INC.

LOG OF BORING FOR Coleto Creek Power Station

Sheet 3 of 3

DATE: April 14, 1976
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. CH-4, Cont'd
LOCATION: See Plat

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample Number	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Tan and light tan clay w/scattered black specks (CH)			37.1	
85		X	67	J-15	Light gray and tan sand (SP)			34.6	
90				S-3	Tan and light tan clay w/scattered black specks (CH)				
95		X	61	J-16					
100				S-4				20.6	

Total depth of boring = 100.0 feet

NOTES:

Project No. 4857

Boring Started: 4/13/76 - 5:00 p.m.

Boring Completed: 4/14/76 - 9:30 a.m.

Driller: Joe Castleberry

WATER OBSERVATIONS

Drilling fluid was used from the ground surface down and did not disperse.

LOG OF BORING FOR Coleto Creek Power Station

Sheet 1 of 2

DATE: April 13, 1976
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. CH-5
LOCATION: See Plat

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample Number	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground surface elevation = 116.5				
					Brown silty sand (SM)			114.5	
5		X	34	J-1	Brown, tan and light gray clayey sand w/red streaks and scattered gravel (SC)			109.5	
10		X	29	J-2	Light gray and tan clayey sand w/scattered gravel (SC)				
15		X	55	J-3				97.5	
20		X	37	J-4	Light gray and tan clay w/sand lenses, caliche nodules and wood particles (CH)				
25		X	31	J-5				90.5	
30		X	67	J-6	Tan sand, coarse grained (SP)				
35					Drilled past 35.0 foot depth by accident and did not take a sample.				
40								76.5	
					Continued on next page				

LOG OF BORING
FOR
Coleto Creek Power Station

Sheet 2 of 2

DATE: April 13, 1976
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. CH-5, Cont'd
LOCATION: See Plat

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample Number	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION
		X	38	J-7	Tan sand, coarse grained (SP)			72.5
45		X	75	J-8	Yellowish tan clayey sand w/caliche (SC)			70.0
		X	39	J-9	Light gray clayey sand w/caliche nodules (SC)			66.5
50								

Total depth of boring = 50.0 feet

NOTES:

Project No. 4857

Boring Started: 4/13/76 - 7:00 a.m.

Boring Completed: 4/13/76 - 10:00 a.m.

Driller: Joe Castleberry

WATER OBSERVATIONS

Drilling fluid was used from the ground surface down and did not disperse.

Klapp-Hamilton & Asso. Inc.

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 1 of 2

DATE: June 5, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. DSS-1
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION
					Ground Surface Elevation=135.2 Ft.			
		X	19	-J-1	Brown and Tan Clayey Sand (SC)			
5		X	80	-J-2				
								127.7
10		X	17	-J-3	Light Gray and Tan Clayey Sand w/Scattered Lignite Particles and Calcium Pockets (SC)			
15		X	30	-J-4				
20		X	34	-J-5				
								112.2
25		X	33	-J-6	Light Gray and Tan Sand (SP)			
30		X	38	-J-7				
35		X	82	-J-8				99.9
	0/0				Tan Caliche and Gravel			98.9
					Tan Sand w/Calcium Pockets (SP)			
40		X	100	-J-9, 61/6.00", 39/2.00"				
					CONTINUED			

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 2 of 2

DATE: June 5, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Core
BORING NO. DSS-1
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Tan Sand w/Calcium Pockets (SP)				
								92.2	
45		X	100	-J-10	44/6.00", 56/3.00"				
					Tan Sand (SP)				
								86.7	
50		X	64	-J-11	Light Gray and Yellowish Tan Sandy Clay (CL)			84.7	
					Total Depth of Boring = 50.5 Feet				
55									

Notes:
Project No. 4857
Boring Started: June 5, 1975 3:00 pm
Boring Completed: June 5, 1975 5:15 pm
Driller: Joe Castleberry

Water Observations
Drilling fluid was used from the ground surface down and the fluid did not disperse.

Grout Record
Date: June 5, 1975
W.C. = 1.5/1.0 Cu. Ft. Water/Sack
Bentonite = 5.0%/Sack of Cement
Volume Mixed = 6.0 Cu. Ft.
Volume Used = 6.0 Cu. Ft.
Cement 3 Sacks, Bentonite 1/2 Sack
Grout Time: 2 Hours

Clearing
2.5 Hours

LOG OF BORING FOR COLETO CREEK POWER STATION

Sheet 1 of 2

DATE: June 5, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. DSS-2
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground Surface Elevation=126.3 Ft.				
		X	25	J-1	Brown, Light Gray, and Tan Clayey Sand w/Lignite and Caliche Particles (SC)				
5		X	32	J-2				119.3	
					Light Gray Clayey Sand and White Calcium w/Lignite Particles (Caliche)				
10		X	30	J-3					
15		X	50	J-4				108.3	
					Light Gray and Yellowish Tan Clayey Sand w/Scattered Gravel and Sand Lenses (SC)				
20		X	38	J-5					
25		X	71	J-6				98.8	
					Tan Sandstone			97.8	
		X	60	J-7	Light Gray and Tan Sand w/ Scattered Gravel (SP)			95.8	
30					Tan Sand and Gravel (SP)			93.8	
		X	100	J-8, 40/6.00", 60/6.00"	Light Gray and Yellow Sandy Clay w/Caliche (CL)				
35								87.8	
		X	100	J-9, 22/6.00", 50/6.00", 28/2.00"	Light Tan Sand w/Caliche Layers (SP)				
40					CONTINUED				

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 2 of 2

DATE: June 5, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Core
BORING NO. DSS-2
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Light Tan Sand w/Caliche Layers (SP)				
45			100	J-10	100/6.00"				
								78.3	
			100	J-11	100/6.00"				
50					Light Gray and Tan Clayey Sand w/Caliche Layers (SC)			76.8	

Total Depth of Boring = 49.5 Feet

Notes:
Project No. 4857
Boring Started: June 5, 1975 9:00 am
Boring Completed: June 5, 1975 12:00 noon
Driller: Joe Castleberry

Water Observations
Drilling fluid was used from the ground surface down and the fluid did not disperse.

Grout Record
Date: June 5, 1975
W.C. = 1.5/1.0 Cu. Ft. Water/Sack
Bentonite = 5.0%/Sack of Cement
Volume Mixed = 6.0 Cu. Ft.
Volume Used = 6.0 Cu. Ft.
Cement 3 Sacks, Bentonite 1/2 Sack
Grout Time: 2 Hours

Clearing
1 Hour

LOG OF BORING
FOR
COLETO CREEK POWER STATION

DATE: June 18, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Auger
BORING NO. DSS-3
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION
					Ground Surface Elevation=125.0 Ft.			
				J-1	Brown Clayey Sand (SM)			124.0
				J-2	Brown Clayey Sand (SC)			
				J-3				121.0
5				J-4	Tan and Gray Clayey Sand w/ Calcareous Particles and Nodules (SC)			118.0
				J-5	Tan Silty Sand (SM)			116.0
10				J-6	Light Tan Silty Sand w/Sandstone Layers (SM)			113.0
				J-7	Tan Silty Sand w/Sandstone Lenses and Layers and Gravel (SM)			111.0
15				J-8	Light Tan Clayey Sand and White Calcium (Caliche)			107.0
				J-9	Tan Silty Sand w/Scattered Gravel and Sandstone Lenses and Layers (SM)			105.0
20				J-10	Tan Sandstone			104.7
25								

Total Depth of Boring = 20.3 Feet
Auger would not penetrate the sandstone deeper.

Notes:
Project No. 4857
Boring Started: June 18, 1975 10:00 am
Boring Completed: June 18, 1975 11:00 am
Driller: George Whitehead

Water Observations

Boring was drilled without fluid and groundwater was not encountered.

Grout Record

Date: June 19, 1975
Volume Mixed = 15.0 Cu. Ft. Concrete
Volume Used = 15.0 Cu. Ft. Concrete
Grout Time: 1 Hour
Clearing Time: None

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 1 of 2

DATE: June 18, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core w/ Permeability Tests
BORING NO. DSS-4
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground Surface Elevation=126.5 Ft.				
		X	16	J-1	Light Gray, Tan, and Brown Clayey Sand w/Sand Lenses, Scattered Lignite Particles, and Caliche Nodules (SC)				
5		X	22	J-2				120.5	
					Light Gray and Tan Sand w/ Scattered Caliche Nodules (SP)				
10		X	14	J-3				113.0	
15		X	100	J-4, 45/6.00", 55/2.00"	Light Gray and Yellowish Tan Clayey Sand w/Caliche (SC)			109.5	
20		X	100	J-5, 100/6.00"	Light Gray Clayey Sand and White Calcium (Caliche)			103.5	
25		X	100	J-6, 60/6.00", 40/1.00"	Light Gray Clayey Sand and White Calcium w/Gravel (Caliche)			98.5	
30		X	100	J-7, 30/6.00", 70/4.00"	Tan Sand (SP)			93.0	
35		X	21	J-8	Light Gray Clay w/Sand Lenses (CH)			88.5	
					Tan Silty Sand (SM)				
40		X	100	J-9, 18/6.00", 60/6.00", 22/3.00"	CONTINUED				

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 2 of 2

DATE: June 18, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO: DSS-4
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Tan Silty Sand (SM)				
45		X	30	J-10				80.5	
					Light Gray Clayey Sand w/Tan Streaks and Caliche Nodules (SC)				
50		X	100	J-11, 39/6.00", 61/5.00"				76.6	

Total Depth of Boring = 49.9 Feet

Notes:
Project No. 4857
Boring Started: June 18, 1975 10:00 am
Boring Completed: June 18, 1975 8:30 am
Driller: Joe Castleberry

Water Observations

Boring hole was open to 34.0 feet and was dry on June 19, 1975 at 7:30 a.m.

Grout Record

Date: June 19, 1975 8:30 to 10:30 am
W.C. = 1.5/1.0 Cu. Ft. Water/Sack
Bentonite = 5.0%/Sack of Cement
Volume Mixed = 14.0 Cu. Ft.
Volume Used = 14.0 Cu. Ft.
Cement 7 Sacks, Bentonite 1/2 Sack
Grouting Time: 2 Hours

Clearing

None

Permeability Tests

Test Depths	Test Depths
0.5- 2.0	25.5-27.0

Testing Time: 10 Hours

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 1 of 2

DATE: June 17, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core w/ Permeability Tests
BORING NO. DSS-5
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground Surface Elevation=125.8 Ft.				
		X	31	-J-1	Reddish Tan, Brown, and Light Gray Clayey Sand (SC)				
5		X	28	-J-2				119.8	
					Light Gray Clayey Sand and White Calcium (Caliche)				
10		X	60	-J-3					
15		X	100	-J-4, 30/6.00", 43/6.00", 27/3.00"				109.8	
					Light Gray Clay w/Tan Streaks, Black Specks, and Scattered Calcium Nodules (CH)				
20		X	39	-J-5					
								101.6	
25		X	61	-J-6					
					Tan Sand w/Scattered Gravel, Caliche Particles, and Clayey Sand Layers (SP)				
30		X	42	-J-7					
35		X	45	-J-8					
								87.8	
					Light Gray Clayey Sand w/Tan Streaks (SC)				
40		X	36	-J-9					

CONTINUED

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 2 of 2

DATE: June 17, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Core
BORING NO. DSS-5
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Light Gray Clayey Sand w/Tan Streaks (SC)			83.8	
45			100		-J-10, 18/6.00", 82/1.00"				
					Light Gray and Tan Clayey Sand w/Caliche Nodules and Sand Layers (SC)				
50			45		-J-11			75.3	
					Total Depth of Boring = 50.5 Feet				
55					Notes: Project No. 4857 Boring Started: June 17, 1975 7:30 am Boring Completed: June 17, 1975 5:30 pm Driller: Joe Castleberry				

Water Observations

Drilling fluid was used from the ground surface down and the fluid did not disperse.

Grout Record

Date: June 18, 1975 7:30 to 9:30 am
W.C. = 1.5/1.0 Cu. Ft. Water/Sack
Bentonite = 5.0%/Sack of Cement
Volume Mixed = 14.0 Cu. Ft.
Volume Used = 14.0 Cu. Ft.
Cement 7 Sacks, Bentonite 1/2 Sack
Grouting Time: 2 Hours

Clearing

None

Permeability Tests

Test Depths	Test Depths
5.5-7.5	40.5-42.0

Testing Time: 7 Hours

LOG OF BORING FOR COLETO CREEK POWER STATION

Sheet 1 of 2

DATE: June 13, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core w/ Permeability Tests
BORING NO. DSS-6
LOCATION: See Plan

Ground Surface Elevation=121.8 Ft.

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION
			8	J-1	Light Gray, Tan, and Brown Clayey Sand (SC)			
5			28	J-2				116.8
					Tan Clayey Sand w/Caliche (SC)			113.3
10			26	J-3	Light Gray and Tan Clayey Sand and White Calcium (Caliche)			
15			52	J-4				
								102.9
20			100		100/0" Tan Sandstone			102.4
					Light Gray Clay and White Calcium (Caliche)			
25			100	J-5, 40/6.00", 60/2.00"				
								92.3
30			50	J-6	Tan Sand (SP)			
35			26	J-7				
								83.8
40			50	J-8	Light Gray and Tan Clayey Sand (SC)			

CONTINUED

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 2 of 2

DATE: June 13, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. DSS-6
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Light Gray and Tan Clayey Sand (SC)			78.8	
45		X	17	J-9	Light Gray Clayey Sand w/ Scattered Caliche and Gravel (SC)				
50		X	100	J-10				71.3	
					Total Depth of Boring = 50.5 Feet				
55					Notes: Project No. 4857 Boring Started: June 13, 1975 7:30 am Boring Completed: June 16, 1975 4:00 pm Driller: Joe Castleberry				

Water Observations

Drilling fluid was used from the ground surface down and it did not disperse.

Grout Record

Date: June 16, 1975 4:00 to 6:00 pm
W.C. = 1.5/1.0 Cu. Ft. Water/Sack
Bentonite = 5.0%/Sack of Cement
Volume Mixed = 14.0 Cu. Ft.
Volume Used = 14.0 Cu. Ft.
Cement 7 Sacks, Bentonite 1/2 Sack
Grouting Time: 2 Hours

Clearing

None

Permeability Tests

Test Depths	Test Depths
6.0- 7.5	30.5-32.0
15.5-17.0	45.5-46.5

Testing Time: 10 Hours

Klepp-Hamilton & Assoc. Inc.

LOG OF BORING FOR COLETO CREEK POWER STATION

DATE: June 3, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. DSS-7
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground Surface Elevation=119.4 Ft.				
					Brown Clayey Sand (SC)			117.9	
		X	23	J-1	Tan Clayey Sand and White Calcium (Caliche)				
5		---		S-1					
10		X	75	J-2				108.4	
					Light Gray and Tan Clayey Sand w/Caliche Particles (SC)				
15		X	68	J-3				101.4	
		X	100	J-4, 50/6.00", 50/3.00"					
20					Tan Sand (SP)			96.9	
		---		S-2	Light Gray Clayey Sand w/Yellow Streaks and Caliche Particles (SC)				
25								92.9	
					Tan and Light Gray Sand w/ Scattered Gravel and Clayey Sand Lenses (SP)				
30		X	46	J-5					
					CONTINUED				

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 2 of 3

DATE: June 3, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. DSS-7
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Tan and Light Gray Sand w/Scattered Gravel and Clayey Sand Lenses (SP)				
35		X	100	J-6	33/6.00", 51/6.00", 16/1.00"				
40		X	39	J-7				77.4	
					Light Gray Clayey Sand (SC)			74.9	
45		X	61	J-8, J-9					
					Light Gray and Yellow Sandy Clay w/Caliche (CL)				
50		X	100	J-10	75/6.00", 25/2.00"			67.4	
55		X	100	J-11	100/4.00"				
					Light Gray Clayey Sand and White Calcium (Caliche)			60.9	
					Light Gray and Tan Sand (SP)				
60		X	100		70/6.00", 30/2.00"				

CONTINUED

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 3 of 3

DATE: June 3, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. DSS-7
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Light Gray and Tan Sand (SP)			55.4	
65			100		100/0.00" Tan Sandstone			53.9	
					Light Gray and Tan Sandy Clay (CL)				
70				S-3				49.4	

Total Depth of Boring = 70.0 Feet

Notes:
Project No. 4857
Boring Started: June 3, 1975 4:30 pm
Boring Completed: June 4, 1975 10:00 am
Driller: Joe Castleberry

Water Observations

Drilling fluid was used from the ground surface down and the fluid did not disperse.

Grout Record

Date: June 4, 1975
W.C. = 1.5/1.0 Cu. Ft. Water/Sack
Bentonite = 5.0%/Sack of Cement
Volume Mixed = 10.0 Cu. Ft.
Volume Used = 10.0 Cu. Ft.
Cement 5 Sacks, Bentonite 1/2 Sack
Grout Time: 2 Hours

Clearing

1 Hour

Klapp-Hamilton & Assoc. Inc.

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 1 of 3

DATE: June 2, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Core
BORING NO. DSS-8
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground Surface Elevation=117.2 Ft.				
		X	23	J-1	Light Gray and Tan Clayey Sand and White Calcium (Caliche)				
5			---	S-1					
		X	60	J-2					
10								106.7	
					Light Tan Silty Sand w/Scattered Sandstone Lenses (SM)				
15		X	100		J-3, 22/6.00", 35/6.00", 43/4.50"				
								100.2	
		X	100		Light Tan Clayey Sand and White Calcium w/Scattered Gravel (Caliche)				
20					J-4, 14/6.00", 46/6.00", 40/1.00"			96.2	
					Light Gray Sand w/Sandstone Lenses (SP)				
25		X	100		J-5, 43/6.00", 57/1.00"				
					Light Gray Clay			91.2	
					Tan Sand w/Caliche Layers (SP)			90.2	
30			100		J-6, 31/6.00", 69/4.00"				
					CONTINUED				

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 2 of 3

DATE: June 2, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. DSS-8
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Tan Sand w/Caliche Layers (SP)			85.2	
35		X	40	J-7	Tan and Light Gray Sand w/ Scattered Gravel (SP)				
								78.7	
40		X	78	J-8	Light Tan Clayey Sand w/Black Specks			76.2	
					Yellow and Light Tan Clay w/Light Gray Clayey Sand Layers and Caliche Nodules (CH)				
45		X	82	J-9				72.2	
					Tan Sand			71.2	
					Light Gray Clay				
								68.7	
50			100	J-10, 00/0.50"	Light Gray and Tan Sandstone			67.2	
					Light Tan Sand w/Black Specks, Clayey Sand Layers, Calcareous Particles, and Scattered Gravel and Sandstone Layers (SP)				
55		X	100	J-11, 27/6.00", 48/6.00", 25/3.00"				61.7	
					Light Gray and Yellowish Tan Sandstone				
60			100	-100/4.50"					
					CONTINUED				

LOG OF BORING
FOR

Sheet 3 of 3

COLETO CREEK POWER STATION

DATE: June 2, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. DSS-8
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Light Gray and Yellowish Tan Sandstone			56.2	
65		X	100		-J-12, 17/6.00", 30/6.00", 53/5.00" Tan and Light Tan Clay w/Black Specks, Sand Lenses, and Caliche Nodules (CH)				
70		X	100		-J-13, 34/6.00", 66/5.00"			47.2	

Total Depth of Boring = 70.0 Feet

Notes:
Project No. 4857
Boring Started: June 2, 1975 5:30 pm
Boring Completed: June 3, 1975 11:30 am
Driller: Graham Davis

Water Observations

Drilling fluid was used from the ground surface down and the fluid did not disperse.

Grout Record

Date: June 3, 1975
W.C. = 1.5/1.0 Cu.Ft. Water/Sack
Bentonite = 5.0%/Sack of Cement
Volume Mixed = 12.0 Cu.Ft.
Volume Used = 12.0 Cu.Ft.
Cement 6 Sacks, Bentonite 1/2 Sack
Grout Time: 4 Hours

Clearing

2 Hours

Klepp-Hamilton & Assoc. Inc.

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 1 of 3

DATE: June 2, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. DSS-9
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground Surface Elevation=124.3 Ft.				
		X	13	-J-1	Brown, Tan, and Red Clayey Sand (SC)				
5		---		-S-1					
								117.3	
10		X	100	-J-2, 35/6.00", 50/6.00", 15/1.50"					
					Light Gray Clayey Sand and White Calcium (Caliche)				
15		---		-S-2					
								105.8	
20		X	28	-J-3	Tan Silty Sand w/Yellowish Tan Streaks (SM)				
								102.3	
25		X	42	-J-4	Tan Sand (SP)				
								96.3	
30		X	100	-	Light Gray Clayey Sand and White Calcium w/Sand Lenses (Caliche)				
					J-5, 40/6.00", 50/6.00", 10/0.50"				

CONTINUED

LOG OF BORING
FOR

Sheet 2 of 3

COLETO CREEK POWER STATION

DATE: June 2, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. DSS-9
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Light Gray Clayey Sand and White Calcium w/Sand Lenses (Caliche)			91.3	
35			100		Light Gray Sand (SP) J-6, 40/6.00", 50/6.00", 10/1.50"			88.3	
40				S-3	Light Gray and Tan Clayey Sand w/Caliche Particles (SC)				
45			31	J-7					
50				S-4				72.3	
					Tan Sandstone w/Sand Lenses				
55			100	-100/0.00"				69.3	
					Light Gray and Tan Clayey Sand and White Calcium (Caliche)				
60			82	J-8					
					CONTINUED				

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 3 of 3

DATE: June 2, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. DSS-9
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Light Gray and Tan Clayey Sand and White Calcium (Caliche)				
65			100	J-9, 100/4.00"				59.3	
					Tan Sandstone			58.3	
					Light Gray and Tan Sandy Clay (CL)				
70			28	J-10				53.8	

Total Depth of Boring = 70.5 Feet

Notes:
Project No. 4857
Boring Started: June 2, 1975 7:30 am
Boring Completed: June 2, 1975 10:45 am
Driller: Joe Castleberry

Water Observations
Drilling fluid was used from the ground surface down and the fluid did not disperse.

Grout Record
Date: June 2, 1975
W.C. = 1.5/1.0 Cu. Ft. Water/Sack
Bentonite = 5.0%/Sack of Cement
Volume Mixed = 10.0 Cu. Ft.
Volume Used = 10.0 Cu. Ft.
Cement 5 Sacks, Bentonite 1/2 Sack
Grout Time: 2.5 Hours

Clearing
None

Clapp-Hamilton & Assoc. Inc.

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 1 of 2

DATE: May 30, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. DSS-10
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground Surface Elevation=119.8 Ft.				
		X	20	J-1	Tan and Brown Sandy Clay w/Red Streaks (CL)			116.3	
5			---	S-1	Tan and Gray Sandy Clay w/Red Streaks and Caliche Nodules (CL)			111.3	
10		X	22	J-2	Tan and Gray Clay w/Clayey Sand Layers, Black Specks, Yellow Streaks, and Caliche Nodules (CH)			107.8	
					Tan Sandstone			107.3	
15		X	17	J-3	Tan Sand w/Scattered Gravel (SP)			101.8	
20		X	82	J-4	Tan Sand, Coarse-Grained, w/ Gravel (SP)			98.8	
					Light Tan Clay w/Sand Lenses, Sandstone Layers, and Caliche Nodules (CH)				
25		X	56	J-5				94.3	
					Tan Sand, Coarse-Grained, w/ Clayey Sand Lenses and Gravel (SP)				
30		X	100	J-6, 25/6.00", 48/6.00", 27/2.00"					
					CONTINUED				

LOG OF BORING
FOR

Sheet 2 of 2

COLETO CREEK POWER STATION

DATE: May 30, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. DSS-10
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Tan Sand, Coarse-Grained, w/ Clayey Sand Lenses and Gravel (SP)			88.3	
		X	57	-J-7	Light Tan Clayey Sand and Tan Sand w/Yellow Streaks and Black Specks (SC)			83.8	
35					Light Tan Sandy Clay w/Scattered Gravel (CL)				
			---	-S-2				78.8	
40					Light Tan Clay w/Yellow Streaks and Caliche Nodules (CH)				
		X	90	-J-8					
45									
			---	-S-3				70.6	
50					Total Depth of Boring = 49.2 Feet				

Notes:

Project No. 4857
Boring Started: 5-30-75 8:00 a.m.
Boring Completed: 5-30-75 10:00 a.m.

Driller: Graham Davis

Water Observations

Date	Time	Depth

Drilling fluid was used from the ground surface down and the fluid did not disperse.

Grout Record

Date: 5-30-75 10:00 a.m. to 12:00 noon

W.C. = 1.5/1.0 Cu.Ft. Water/Sack
Bentonite = 5.0%/Sack of Cement
Volume Mixed = 8.0 Cu.Ft.
Volume Used = 8.0 Cu.Ft.
Cement 4 Sacks, Bentonite 1/2 Sack
Grouting = 2 Hours

Clearing

1/2 Hour

Klapp-Hamilton & Assoc. Inc.

LOG OF BORING
FOR

Sheet 1 of 3

COLETO CREEK POWER STATION

DATE: June 3, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Core
BORING NO. DSS-11
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Pocket Pen. T/sf	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground Surface Elevation=121.4 Ft.				
5			18	J-1	Brown, Tan, and Red Clayey Sand (SC)				
				S-1				115.4	
10			27	J-2	Light Gray and Tan Clayey Sand w/ Calcium Pockets (SC)			110.4	
15			46	J-3	Light Tan Clayey Sand (SC)			105.4	
20			76	J-4	Light Gray and Tan Sand w/ Scattered Caliche Lenses (SP)			101.4	
25			100	J-5, 100/3.00"	Light Gray and Tan Sandstone w/ Sand Lenses and Layers			93.4	
30			100	J-6, 42/6", 35/6", 23/3"	Tan Sand (SP)			91.9	
					Light Gray and Tan Clayey Sand (SC)				
					CONTINUED				

Klapp-Hamilton & Assoc. Inc.

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 2 of 3

DATE: June 4, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Core
BORING NO. DSS-11
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Light Gray and Tan Clayey Sand (SC)				
35		X	77	-J-7	Light Gray Clayey Sand w/Sandstone Lenses and Scattered Caliche Particles (SC)			87.6	
								83.9	
40		X	100	- J-8, 20/6.00", 80/3.00"	Light Gray Sand (SP)				
								79.4	
45		X	100	-J-9, 45/6.00", 55/6.00"	Light Gray and Tan Clayey Sand and White Calcium (Caliche)				
50		X	100	-J-10, 17/6.00", 43/6.00", 40/5.50"					
								69.4	
55		X	100	-J-11, 38/6.00", 62/2.00"	Light Gray Clayey Sand w/Sandstone Lenses (SC)			66.4	
					Tan Sandstone				
60		X	39	-J-12	Light Gray and Tan Clayey Sand (SC)			62.9	

CONTINUED

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 3 of 3

DATE: June 4, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. DSS-11
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Light Gray and Tan Clayey Sand (SC)			58.4	
65			43	J-13	Light Tan Clayey Sand (SC)			54.4	
					Tan Sand (SP)				
			100	J-14, 100/4.00"				52.1	
70					Total Depth of Boring = 69.3 Feet				

Notes:
Project No. 4857
Boring Started: June 3, 1975 4:00 pm
Boring Completed: June 4, 1975 12:00 noon
Driller: Graham Davis

Water Observations
Drilling fluid was used from the ground surface down and the fluid did not disperse.

Grout Record
Date: June 4, 1975
W.C. = 1.5/1.0 Cu. Ft. Water/Sack
Bentonite = 5.0%/Sack of Cement
Volume Mixed = 12.0 Cu. Ft.
Volume Used = 12.0 Cu. Ft.
Cement 6 Sacks, Bentonite 1/2 Sack
Grout Time: 2 Hours

Clearing
2.5 Hours

Klepp-Hamilton & Assoc. Inc.

LOG OF BORING
FOR

Sheet 1 of 2

COLETO CREEK POWER STATION

DATE: June 6, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. DSS-12
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground Surface Elevation=125.2 Ft.				
					Brown and Tan Clayey Sand (SC)				
		X	34	-J-1				122.2	
		X	22	-J-2	Light Gray and Tan Clayey Sand w/ Scattered Lignite Particles (SC)				
5									
		X	22	-J-3				113.2	
10									
					Light Gray and Tan Clayey Sand w/Caliche Layers (SC)				
		X	47	-J-4				108.2	
15									
					Light Gray and Tan Sand w/ Scattered Gravel (SP)				
		X	37	-J-5					
20									
		X	100	-J-6, 18/6.00", 39/6.00", 43/4.50"				97.2	
25									
					Tan and Gray Clay (CH)			96.2	
		X	86	-J-7	Light Gray and Tan Sand w/ Scattered Gravel (SP)				
30								92.2	
		X	61	-J-8	Light Gray and Tan Clayey Sand (SC)				
35									
		X	100	-J-9, 20/6.00", 54/6.00", 26/1.50"					
40					CONTINUED				

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 2 of 2

DATE: June 6, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. DSS-12
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Light Gray and Tan Clayey Sand (SC)				
45		X	100	J-10	39/6.00", 61/3.00"			79.2	
					Light Gray and Yellow Sandy Clay (CL)				
		X	100	J-11	67/6.00", 33/4.50"			75.8	
50					Total Depth of Boring = 49.4 Feet				

Notes:
Project No. 4857
Boring Started: June 6, 1975 7:30 am
Boring Completed: June 6, 1975 10:15 am
Driller: Joe Castleberry

Water Observations
Drilling fluid was used from the ground surface down and the fluid did not disperse.

Grout Record
Date: June 6, 1975
W.C. = 1.5/1.0 Cu.Ft. Water/Sack
Bentonite = 5.0%/Sack of Cement
Volume Mixed = 8.0 Cu. Ft.
Volume Used = 8.0 Cu. Ft.
Cement 4 Sacks, Bentonite 1/2 Sack
Grout Time: 2 Hours

Clearing
2.5 Hours

LOG OF BORING FOR COLETO CREEK POWER STATION

Sheet 1 of 2

DATE: June 5, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. DSS-13
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground Surface Elevation=128.1 Ft.				
		X	17	-J-1	Brown Clayey Sand (SC)			126.1	
5		X	25	-J-2	Tan Clayey Sand w/Scattered Lignite and Caliche Particles (SC)			121.1	
10		X	21	-J-3	Tan and Light Gray Clayey Sand w/ Scattered Lignite and Caliche Particles (SC)			116.1	
15		X	41	-J-4	Tan and Light Gray Clayey Sand and White Calcium w/Yellow Streaks and Black Specks (Caliche)				
20		X	68	-J-5					
25		X	100	-J-6, 19/6.00", 46/6.00", 35/4.50"				101.1	
30		X	78	-J-7	Light Tan Sand w/Scattered Gravel (SP)			95.1	
35		X	100	- J-8, 87/6.00", 13/0.50"	Tan and Light Gray Clayey Sand (SC)				
40		X	100	-J-9	CONTINUED				

LOG OF BORING FOR COLETO CREEK POWER STATION

Sheet 2 of 2

DATE: June 5, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. DSS-13
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Tan and Light Gray Clayey Sand (SC)			86.1	
45				S-1	Light Tan Clayey Sand w/Scattered Sandstone Lenses (SC)				
50			100	J-10	85/6.00", 15/0.50"			78.1	

Total Depth of Boring = 50.0 Feet

Notes:
Project No. 4857
Boring Started: June 5, 1975 9:30 am
Boring Completed: June 5, 1975 12:30 pm
Driller: Graham Davis

Water Observations
Drilling fluid was used from the ground surface down and the fluid did not disperse.

Grout Record
Date: June 5, 1975
W.C. = 1.5/1.0 Cu. Ft. Water/Sack
Bentonite = 5.0%/Sack of Cement
Volume Mixed = 6.0 Cu. Ft.
Volume Used = 6.0 Cu. Ft.
Cement 3 Sacks, Bentonite 1/2 Sack
Grout Time: 4 Hours

Clearing
3.5 Hours

LOG OF BORING
FOR

Sheet 1 of 2

COLETO CREEK POWER STATION

DATE: June 4, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. DSS-14
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground Surface Elevation=128.7 Ft.				
					Tan Clayey Sand (SC)				
		X	20	-J-1				125.7	
5		X	21	-J-2	Light Gray and Tan Clayey Sand w/ Black Specks and Scattered Caliche Particles (SC)				
10		X	32	-J-3				118.7	
					Tan and Light Gray Clayey Sand and White Calcium w/Black Specks (Caliche				
15		X	100	-J-4, 19/6.00", 51/6.00", 30/4.00"				112.2	
					Yellowish Tan Sand (SP)				
20		X	18	-J-5				106.7	
					Tan Sand (SP)				
25		X	37	-J-6				101.7	
					Tan Sand w/Scattered Gravel (SP)				
30		X	49	-J-7					
35		X	70	-J-8					
40		X	56	-J-9					
					CONTINUED				

LOG OF BORING
FOR

COLETO CREEK POWER STATION

DATE: June 4, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Core
BORING NO. DSS-14
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Tan Sand w/Scattered Gravel (SP)			88.2	
					Light Gray and Tan Clayey Sand (SC)			86.2	
					Tan Sand w/Clayey Sand Layers (SP)				
45		X	100	J-10	19/6.00", 45/6.00", 33/3.50"			83.7	
					Tan Sand (SP)				
								79.9	
50		X	100	J-11	100/3.00" Tan Sandstone			78.7	

Total Depth of Boring = 50.0 Feet

Notes:
Project No. 4857
Boring Started: June 4, 1975 2:30 pm
Boring Completed: June 4, 1975 4:30 pm
Driller: Graham Davis

Water Observations
Drilling fluid was used from the ground surface down and the fluid did not disperse.

Grout Record
Date: June 4, 1975
W.C. = 1.5/1.0 Cu. Ft. Water/Sack
Bentonite = 5.0%/Sack of Cement
Volume Mixed = 8.0 Cu. Ft.
Volume Used = 8.0 Cu. Ft.
Cement 4 Sacks, Bentonite 1/2 Sack
Grout Time: 2 Hours

Clearing
2 Hours

Klapp-Hamilton & Assoc. Inc.

LOG OF BORING FOR COLETO CREEK POWER STATION

DATE: June 3, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. DSS-15
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground Surface Elevation=117.4 Ft.				
		X	20	-J-1	Light Gray and Tan Clayey Sand w/White Calcium (Caliche)				
5			---	-S-1					
10		X	45	-J-2					
				-S-2					
15								102.4	
					Light Tan Sand w/Scattered Gravel and Caliche Lenses (SP)				
20		X	69	-J-3					
								95.4	
					Tan Sand w/Scattered Gravel Layers (SP)				
25		X	52	-J-4					
30		X	100	-J-5, 45/6.00", 55/2.00"					
					CONTINUED				

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 2 of 3

DATE: June 3, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. DSS-15
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Tan Sand w/Scattered Gravel Layers (SP)				
35		X	49	-J-6					
40		X	40	-J-7					
45			42						
								70.4	
					Light Gray and Tan Clayey Sand w/Caliche (SC)				
50		X	100	-J-8, 100/6.00"					
								66.4	
55		X	100	-J-9, 100/1.00"					
					Light Gray and Yellow Sandstone w/Sand Lenses and Layers				
60			100	-33/6.00", 67/3.00"					
					CONTINUED				

LOG OF BORING FOR COLETO CREEK POWER STATION

Sheet 3 of 3

DATE: June 3, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Core
BORING NO. DSS-15
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
			100	-J-10, 100/3.00"	Light Gray and Yellow Sandstone w/Sand Lenses and Layers			54.9	
65				-S-3	Light Gray and Yellowish Tan Clayey Sand (SC)				
70			100	-J-11, 55/6.00", 45/3.00"				47.5	

Total Depth of Boring = 70.0 Feet

Notes:
Project No. 4857
Boring Started: June 2, 1975 7:30 am
Boring Completed: June 3, 1975 10:30 am
Driller: Joe Castleberry

Water Observations
Drilling fluid was used from the ground surface down and the fluid did not disperse.

Grout Record
Date: June 3, 1975
W.C. = 1.5/1.0 Cu. Ft. Water/Sack
Bentonite = 5.0%/Sack of Cement
Volume Mixed = 10.0 Cu. Ft.
Volume Used = 10.0 Cu. Ft.
Cement 5 Sacks, Bentonite 1/2 Sack
Grout Time: 2.5 Hours

Clearing
3 Hours

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 1 of 4

DATE: June 4, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Core
BORING NO. DSS-16
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground Surface Elevation=106.1 Ft.				
		X	13	J-1	Brown and Tan Clayey Sand w/ Caliche (SC)			103.1	
5		X	21	J-2	Brown Clayey Sand and White Calcium (Caliche)			98.1	
10				S-1	Tan Sand w/Caliche Layers (SP)				
15		X	60	J-3				90.1	
20		X	55	J-4	Yellow, Tan, and Light Gray Sandy Clay (CL)				
25				S-2				78.1	
30		X	57	J-5	Light Gray Clayey Sand (SC)				
					CONTINUED				

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 2 of 4

DATE: June 4, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. DSS-16
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Light Gray Clayey Sand(SC)			75.1	
35			84	-J-6	Yellowish Tan and Light Gray Clayey Sand w/Caliche (SC)				
40			100	-J-7, 100/4.00"				65.1	
45			100	-J-8, 80/6.00", 20/1.00"	Light Gray Clayey Sand and White Calcium (Caliche)				
50			100	-100/1.00"					
55			100	-J-9, 72/6.00", 28/2.00"				50.1	
60			---	-S-3	Tan and Light Gray Sandy Clay (CL)				
					CONTINUED				

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 3 of 4

DATE: June 4, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. DSS-16
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Tan and Light Gray Sandy Clay (CL)				
65		X	73	-J-10					
								40.1	
					Light Gray Clayey Sand (SC)				
70		X	100	-J-11, 31/6.00", 48/6.00", 21/3.00"					
								33.6	
75		X	52	-J-12					
					Tan and Light Gray Sandy Clay w/Black Specks (CL)				
80		X	53	-J-13					
85			---	-S-4					
90		X	44	-J-14					
					CONTINUED				

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 4 of 4

DATE: June 4, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. DSS-16
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
95				S-5	Tan and Light Gray Sandy Clay w/ Black Specks				
100			56	J-15				5.6	
105					Total Depth of Boring = 100.5 Feet Notes: Project No. 4857 Boring Started: June 4, 1975 12:30 pm Boring Completed: June 4, 1975 6:00 pm Driller: Joe Castleberry Water Observations Drilling fluid was used from the ground surface down and the fluid did not disperse. Grout Record Date: June 4, 1975 W.C. = 1.5/1.0 Cu. Ft. Water/Sack Bentonite = 5.0%/Sack of Cement Volume Mixed = 12.0 Cu. Ft. Volume Used = 12.0 Cu. Ft. Cement 6 Sacks, Bentonite 1/2 Sack Grout Time: 2.5 Hours Clearing 4 Hours				

LOG OF BORING FOR COLETO CREEK POWER STATION

Sheet 1 of 2

DATE: May 15, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. DSS-17
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION
					Ground Surface Elevation=120.9 Ft.			
		X	28	J-1	Tan Silty Sand (SM)			118.5
					Tan, Light Tan, and Yellow Clayey Sand (SC)			115.9
5		X	28	J-2	Tan, Light Tan, and Red Clayey Sand (SC)			113.4
					Tan, Light Tan, and Red Sand (SP)			112.7
10		X	50	J-3	Tan and Light Tan Clayey Sand w/ Scattered Red Streaks (SC)			
15		X	64		Tan and Light Tan Sand, Coarse-Grained (SP)			105.9
					Tan, Brown, and Red Sand and Gravel (SP)			105.3
				J-4				104.9
20		X	64		Tan and Light Tan Sand, Coarse-Grained (SP)			101.9
				J-5	Tan and Light Tan Sand and Gravel (SP)			
25		X	49	J-6	Tan and Light Tan Clayey Sand w/ Black Specks (SC)			94.9
30					CONTINUED			

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 2 of 2

DATE: May 15, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Core
BORING NO. DSS-17
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
		X	22	J-7	Tan and Light Tan Clayey Sand w/ Black Specks (SC)				
35		X	42	J-8					
								82.9	
40		X	100	J-9	Tan and Light Tan Sand w/Gravel (SP)			79.9	
					Total Depth of Boring = 41.0 Feet				
45									

Notes:

Project No. 4857
Boring Started: 5-15-75 2:00 p.m.
Boring Completed: 5-15-75 6:30 p.m.

Driller: Tim Carl

Water Observations

Date	Time	Depth

Drilling fluid was used in advancing the boring from the ground surface down and it did not disperse.

Grout Record

Date: 5-16-75 8:30 a.m. to 10:30 a.m.

W. C. = 1.5/1.0 Cu. Ft. Water/Sack
Bentonite 5.0%/Sack of Cement
Volume Mixed = 12.0 Cu. Ft.
Volume Used = 12.0 Cu. Ft.
Cement 6 Sacks, Bentonite 1/2 Sack
Grouting = 2 Hours

Clearing

1/2 Hour

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 1 of 2

DATE: May 16, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. DSS-18
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground Surface Elevation=117.8 Ft.				
					Tan Silty Sand (SM)			117.3	
				S-1	Tan, Gray, and Red Sandy Clay (CL)				
5			31	J-1	Tan and Red Clayey Sand (SC)			112.8	
								111.3	
10			37	J-2	Light Tan Clayey Sand w/Tan Streaks and Black Specks (SC)				
15			56	J-3	Light Tan Sand, Coarse-Grained, w/Gravel and Scattered Clayey Sand Layers (SP)			103.3	
								99.8	
20			35	J-4	Tan and Light Tan Sand, Coarse-Grained, w/Black Specks (SP)				
25			49	J-5				91.5	
					Tan and Light Tan Sand, Coarse-Grained, w/Black Specks and Clayey Sand Layers (SP)			89.8	
30					Tan and Yellow Clayey Sand and Gravel (SC)				
					CONTINUED				

B-82

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 2 of 2

DATE: May 16, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Core
BORING NO. DSS-18
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
			23	J-6, J-7	W.S. 5-19-75 Tan and Yellow Clayey Sand and Gravel (SC)			87.0	
					Light Tan and Yellow Clay (CH)			86.6 86.3	
35			17	J-8	Tan, Light Tan, and Yellow Sand w/Gravel (SP)				
								79.8	
40			12	J-9	Tan and Light Tan Sand w/Black Specks (SP)				
								76.3	
45					Total Depth of Boring = 41.5 Feet				

Notes:

Project No. 4857
Boring Started: 5-16-75 10:15 a.m.
Boring Completed: 5-16-75 5:00 p.m.

Driller: Tim Carl

Water Observations

Date	Time	Depth
5-19-75	8:00 a.m.	30.8'

Drilling fluid was used in advancing the boring below the 2.5-foot depth.

Grout Record

Date: 5-19-75 8:45 a.m. to 10:45 a.m.

W.C. = 1.5/1.0 Cu.Ft. Water/Sack
Bentonite = 5.0%/Sack of Cement
Volume Mixed = 12.0 Cu.Ft.
Volume Used = 12.0 Cu.Ft.
Cement 6 Sacks, Bentonite 1/2 Sack
Grouting = 2 Hours

Clearing

None

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 1 of 2

DATE: June 5, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. DSS-19
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground Surface Elevation=119.6 Ft.				
		X	23	J-1	Brown, Tan, and Light Gray Clayey Sand (SC)			116.6	
5		X	21	J-2	Light Gray and Tan Clayey Sand w/ Scattered Lignite Particles (SC)				
10		X	25	J-3				107.6	
15		X	78	J-4	Light Gray Clayey Sand w/Scattered Caliche Nodules (SC)			102.6	
20		X	100	J-5, 34/6.00", 50/6.00", 16/2.00"	Tan Clayey Sand w/Scattered Gravel and Caliche Nodules (SC)			98.6	
25		X	52	J-6	Tan and Light Tan Sand w/Scattered Gravel (SP)				
30		X	16	J-7					
					CONTINUED				

Klepp-Hamilton & Assoc. Inc.

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 2 of 2

DATE: June 5, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. DSS-19
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
				Tan and Light Tan Sand w/Scattered Gravel (SP)			87.6	
35		-J-8	74	Tan Sand w/Scattered Clayey Sand Lenses and Gravel (SP)			81.6	
40		-S-1	---	Tan and Light Gray Clayey Sand (SC)			79.6	

Total Depth of Boring = 40.0 Feet

Notes:
Project No. 4857
Boring Started: June 5, 1975 3:00 pm
Boring Completed: June 5, 1975 5:00 pm
Driller: Graham Davis

Water Observations

Drilling fluid was used in advancing the boring from the ground surface down and the fluid did not disperse.

Grout Record

Date: June 5, 1975
W.C. = 1.5/1.0 Cu.Ft. Water/Sack
Bentonite = 5.0%/Sack of Cement
Volume Mixed = 6.0 Cu.Ft.
Volume Used = 6.0 Cu.Ft.
Cement 3 Sack, Bentonite 1/2 Sack
Grout Time: 2 Hours

Clearing

1 Hour

LOG OF BORING
FOR

Sheet 1 of 2

COLETO CREEK POWER STATION

DATE: May 29, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Core
BORING NO. DSS-20
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground Surface Elevation=116.6 Ft.				
					Tan Sand (SP)			115.1	
		X	15	J-1	Tan and Brown Sandy Clay w/ Black Specks and Red Streaks (CL)			113.6	
5			---	S-1	Light Tan Clayey Sand (SC)			109.1	
10		X	24	J-2	Tan Sand w/Scattered Gravel (SP)			105.1	
					Light Tan Clay (CH)			104.1	
15		X	44	J-3	Light Tan Sand w/Scattered Gravel (SP)			100.6	
					Light Tan Clay (CH)			99.6	
20		X	28	J-4	Tan Sand, Coarse-Grained, w/ Gravel (SP)				
25		X	56	J-5				88.1	
30		X	66	J-6	Light Tan Clayey Sand w/Black Specks, Yellow Streaks, and Caliche Nodules (SC)			86.6	

CONTINUED

B-86

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 2 of 2

DATE: May 29, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Core
BORING NO. DSS-20
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Light Tan Sandy Clay w/Black Streaks, Yellow Streaks, and Caliche Nodules (CL)			83.1	
35			71	J-7	Light Tan Clayey Sand w/Black Specks, Yellow Streaks, Sand Lenses, and Caliche Nodules (SC)				
40			---	S-2				77.3	

Total Depth of Boring = 39.3 Feet

Notes:

Project No. 4857
Boring Started: 5-29-75 1:00 p.m.
Boring Completed: 5-29-75 4:00 p.m.

Driller: Graham Davis

Water Observations

Date Time Depth

Drilling fluid was used from the ground surface down and the fluid did not disperse.

Grout Record

Date: 5-29-75 4:00 p.m. to 6:00 p.m.

W.C. = 1.5/1.0 Cu. Ft. Water/Sack
Bentonite = 5.0%/Sack of Cement
Volume Mixed = 8.0 Cu. Ft.
Volume Used = 8.0 Cu. Ft.
Cement 4 Sacks, Bentonite 1/2 Sack
Grouting = 2 Hours

Clearing

1/2 Hour

LOG OF BORING FOR COLETO CREEK POWER STATION

Sheet 1 of 2

DATE: May 30, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. DSS-21
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground Surface Elevation=118.3 Ft.				
		X	12	-J-1	Brown Sand (SP)			116.3	
					Brown Clayey Sand w/Red Streaks (SC)			114.3	
5		---		-S-1	Light Tan Sandy Clay w/Yellow Streaks (CL)			112.3	
					Tan Sand (SP)			111.3	
		X	30	-J-2	Light Tan Clayey Sand w/Black Specks and Caliche Nodules (SC)			107.3	
10									
					Tan Sand w/Black Specks and Scattered Caliche Nodules (SP)				
15		X	14	-J-3					
								99.3	
20		X	100	-J-4, 23/6.00", 63/6.00", 14/0.50"	Tan Sand, Coarse-Grained, w/ Gravel and Caliche Gravel (SP)			97.3	
25		X	100	-J-5, 45/6.00", 55/3.00"	Light Tan Sand w/Scattered Gravel (SP)				
								89.3	
30		X	100	-J-6, 100/6.00"	Light Tan Sand, Coarse-Grained, w/Scattered Gravel (SP)				
					CONTINUED				

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 2 of 2

DATE: May 30, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Core
BORING NO. DSS-21
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION
					Light Tan Sand, Coarse-Grained, w/Scattered Gravel (SP)			86.3
35				S-2	Light Tan Clayey Sand (SC)			
								79.3
40			79	J-7	Light Tan Sand w/Gravel (SP)			77.8
45								

Total Depth of Boring = 40.5 Feet

Notes:

Project No. 4857
Boring Started: 5-30-75 8:00 a.m.
Boring Completed: 5-30-75 10:00 a.m.

Driller: Joe Castleberry

Water Observations

Date	Time	Depth

Drilling fluid was used from the ground surface down and the fluid did not disperse.

Grout Record

Date: 5-30-75 10:00 a.m. to 12:00 noon

W.C. = 1.5/1.0 Cu. Ft. Water/Sack
Bentonite = 5.0%/Sack of Cement
Volume Mixed = 6.0 Cu. Ft.
Volume Used = 6.0 Cu. Ft.
Cement 3 Sacks, Bentonite 1/2 Sack
Grouting = 2 Hours

Clearing

None

Klapp-Hamilton & Assoc. Inc.

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 1 of 2

DATE: June 2, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. DSS-22
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Pocket Pen. T/sf	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground Surface Elevation=115.3 Ft.				
		X	9	-J-1	Light Gray, Tan, and Red Clayey Sand (SC)				
5		---		-S-1					
								108.8	
					Light Gray Sand (SP)			107.1	
		X	58	-J-2	Light Gray Clayey Sand and White Calcium (Caliche)			105.3	
10									
					Tan Sand (SP)				
		X	100					101.3	
15				-J-3, 32/6.00", 68/5.00"					
				J-4	Tan Clayey Sand and White Calcium (Caliche)				
		X	100	-J-5					
20				J-6					
								93.5	
		X	100	-J-7, 100/5.00"					
25					Tan Sand and Gravel (SP)				
		X	73	-J-8					
30					CONTINUED				

LOG OF BORING
FOR

Sheet 2 of 2

COLETO CREEK POWER STATION

DATE: June 2, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. DSS-22
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Pocket Pen. T/sf	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Tan Sand and Gravel (SP)				
		X	70		-J-9				
35								78.3	
					Light Gray and Tan Clayey Sand (SC)				
		X	100		-J-10, 100/3.50"			76.5	
40									

Total Depth of Boring = 38.8 Feet

Notes:
Project No. 4857
Boring Started: June 2, 1975 10:45 am
Boring Completed: June 2, 1975 1:30 pm
Driller: Graham Davis

Water Observations
Drilling fluid was used from the ground surface down and the fluid did not disperse.

Grout Record
Date: June 2, 1975
W.C. = 1.5/1.0 Cu. Ft. Water/Sack
Bentonite = 5.0%/Sack of Cement
Volume Mixed = 8.0 Cu. Ft.
Volume Used = 8.0 Cu. Ft.
Cement 4 Sacks, Bentonite 1/2 Sack
Grout Time: 2 Hours

Clearing
None

Klapp-Hamilton & Assoc. Inc.

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 1 of 2

DATE: June 26, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. DSS-23
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground Surface Elevation=129.0 Ft.				
					Tan Silty Sand (SM)			128.0	
5		X	19	J-1	Brown, Tan, and Light Gray Clayey Sand w/Red Streaks (SC)				
10		X	25	J-2					
15		X	25	J-3					
								110.5	
20		X	23	J-4	Light Gray and Tan Clay w/Black Specks (CH)				
								107.0	
25		X	29	J-5	Tan Sand (SP)				
30		X	44	J-6					
35		X	94	J-7	8" of Tan and Yellow Sandstone at 35.0'				
40		X	48	J-8	Tan and Light Gray Clay w/ Caliche (CH)			89.5	
					CONTINUED				

Klapp-Hamilton & Assoc. Inc.

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 2 of 2

DATE: June 26, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Core
BORING NO. DSS-23
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION
					Tan and Light Gray Clay w/ Caliche (CH)			
45		X	45	J-9				
50		X	100	J-10, 30/6.00", 50/6.00", 20/3.00"				79.2

Total Depth of Boring = 49.8 Feet

Notes:
Project No. 4857
Boring Started: June 26, 1975 10:00 am
Boring Completed: June 26, 1975 4:50 pm
Driller: Jenkins Bishop

Water Observations

Drilling fluid was bailed to the 28.0-foot depth. The hole was open to the 39.0-foot depth and the water surface was at 34.6 feet on June 27, 1975.

Grout Record

Date: June 27, 1975
W.C. = 1.5/1.0 Cu. Ft. Water/Sack
Bentonite = 5.0%/Sack of Cement
Volume Mixed = 14.0 Cu. Ft.
Volume Used = 14.0 Cu. Ft.
Cement 7 Sacks, Bentonite 1/2 Sack
Grout Time: 2 Hours

Clearing

4 Hours

Permeability Tests

24.0'-25.5'
Test Time: 5 Hours

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 1 of 2

DATE: June 24, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Core
BORING NO. DSS-24
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground Surface Elevation=128.6 Ft.				
					Tan Silty Sand (SM)			127.6	
5		X	10	J-1	Light Gray and Tan Clayey Sand w/ Scattered Lignite and Calcium Particles (SC)				
10		X	17	J-2					
								116.6	
15		X	35	J-3	Tan Sand w/Clayey Sand Lenses (SP)				
20		X	35	J-4					
					Tan Sandstone			106.2	
25		X	46	J-5	Tan Clayey Sand (SC)			104.6	
					Tan Sandstone			101.6	
30		X	100	J-6, 15/6.00", 38/6.00", 47/4.00"	Tan Clayey Sand w/Scattered Gravel and Caliche Lenses (SC)			100.6	
35		X	100	J-7, 45/6.00", 45/6.00", 10/3.00"					
					Light Gray and Tan Clayey Sand w/ Caliche Particles and Layers (SC)			92.1	
40		X	104	J-8, 34/6.00", 29/6.00", 41/4.00"					
					CONTINUED				

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 2 of 2

DATE: June 24, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Core
BORING NO. DSS-24
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Light Gray and Tan Clayey Sand w/ Caliche Particles and Layers (SC)				
45		X	100		-J-9, 57/6.00", 43/3.00"				
		X	100		- J-10, 56/6.00", 44/1.00"			79.5	
50					Total Depth of Boring = 49.1 Feet				

Notes:
Project No. 4857
Boring Started: June 24, 1975 2:30 pm
Boring Completed: June 24, 1975 5:30 pm
Driller: Jenkins Bishop

Water Observations

Drilling fluid was bailed to the 40.0-foot depth. The hole was open to 26.0 feet and the water surface was at the 21.8-foot depth on June 26 and 27, 1975.

Grout Record

Date: June 27, 1975
W.C. = 1.5/1.0 Cu. Ft. Water/Sack
Bentonite = 5.0%/Sack of Cement
Volume Mixed = 6.0 Cu. Ft.
Volume Used = 6.0 Cu. Ft.
Cement 3 Sacks, Bentonite 1/2 Sack
Grout Time: 2 Hours

Clearing

2 Hours

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 1 of 2

DATE: June 25, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. DSS-25
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground Surface Elevation=138.6 Ft.				
					Tan Silty Sand (SM)			137.6	
5		X	68	J-1	Tan and Gray Clayey Sand w/Red and Yellow Streaks (SC)				
10		X	31	J-2					
15		X	30	J-3					
								121.6	
20		X	19	J-4	Light Gray and Tan Clayey Sand w/ Scattered Small Lignite Particles (SC)				
								115.6	
25		X	55	J-5	Light Gray and Tan Sand w/ Scattered Gravel (SP)				
30		X	52	J-6					
35		X	17	J-7					
40		X	19	J-8					
					CONTINUED				

Klepp-Hamilton & Assoc. Inc.

LOG OF BORING
FOR
COLETO CREEK POWER STATION

DATE: June 25, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Core
BORING NO. DSS-25
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Light Gray and Tan Sand w/ Scattered Gravel (SP)			96.6	
45		X	26	-J-9	Tan Sand w/Clayey Sand Layers (SP)				
					-6" Clay Layer at 47.0'			91.1	
					Light Gray and Tan Silty Sand w/ Caliche Layers (SM)				
50		X	100	-J-10				88.5	

Total Depth of Boring = 50.1 Feet

Notes:
Project No. 4857
Boring Started: June 25, 1975 12:30 pm
Boring Completed: June 26, 1975 9:30 am
Driller: Jenkins Bishop

Water Observations

Drilling fluid was used from the ground surface down. The hole was open to 40.0 feet and was dry on June 27, 1975.

Grout Record

Date: June 27, 1975
W.C. = 1.5/1.0 Cu. Ft. Water/Sack
Bentonite = 5.0%/Sack of Cement
Volume Mixed = 14.0 Cu. Ft.
Volume Used = 14.0 Cu. Ft.
Cement 7 Sacks, Bentonite 1/2 Sack
Grout Time: 2 Hours

Clearing

2.5 Hours

Permeability Tests

29.0'-30.5'
Test Time: 6.75 Hours
Lost 28' of Casing in Hole.

LOG OF BORING
FOR

Sheet 1 of 2

COLETO CREEK POWER STATION

DATE: June 24, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. DSS-26
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground Surface Elevation=123.1 Ft.				
					Tan Silty Sand (SM)			122.1	
5			15	J-1	Brown, Tan, and Light Gray Sandy Clay (CL)				
								115.1	
10			35	J-2	Light Gray Clayey Sand and White Calcium (Caliche)				
15			75	J-3					
								104.8	
20			42	J-4	Tan and Brown Sand (SP)				
								99.8	
			100		100/0.00" Tan Sandstone			98.8	
25			60	J-5	Tan and Yellow Sand w/Scattered Gravel (SP)				
					Tan Sandstone			96.1 / 95.6	
30			100	J-6, 45/6.00", 55/4.00"	Tan Sand w/Clayey Sand Lenses (SP)				
								89.6	
35			18	J-7	Light Gray Clayey Sand (SC)				
								84.6	
			100		Tan Sandstone			84.1	
40				J-8, 30/6.00", 70/3.00"	Light Tan Sand w/Sandstone Lenses (SP)				

CONTINUED

B-98

Klapp-Hamilton & Assoc. Inc.

LOG OF BORING
FOR

COLETO CREEK POWER STATION

DATE: June 24, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Core
BORING NO. DSS-26
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Light Tan Sand w/Sandstone Lenses (SP)			81.1	
45		X	100	J-9	57/6.00", 43/3.00" Yellowish Tan and Light Gray Clayey Sand (SC)			76.1	
50		X	47	J-10	Light Gray Clayey Sand and White Calcium (Caliche)			73.1	

Total Depth of Boring = 50.0 Feet

Notes:
Project No. 4857
Boring Started: June 24, 1975 9:45 am
Boring Completed: June 24, 1975 12:45 pm
Driller: Jenkins Bishop

Water Observations

Drilling fluid was bailed to the 35.0-foot depth. The hole was open to the 32.3-foot depth and the water surface was at the 32.2-foot depth on June 25 and June 26, 1975.

Grout Record

Date: June 27, 1975
W.C. = 1.5/1.0 Cu. Ft. Water/Sack
Bentonite = 5.0%/Sack of Cement
Volume Mixed = 6.0 Cu. Ft.
Volume Used = 6.0 Cu. Ft.
Cement 3 Sacks, Bentonite 1/2 Sack
Grout Time: 2 Hours

Clearing

1/2 Hour

Stand-By

5 Hours on June 23, 1975 for Right-of-Entry Clearance.
1.5 Hours on June 24, 1975 for Surveyed Location of Boring.

Klapp-Hamilton & Assoc. Inc.

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 1 of 2

DATE: June 25, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. DSS-27
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground Surface Elevation=123.5 Ft.				
					Tan Silty Sand			122.5	
5		X	13	J-1	Brown, Tan, and Light Gray Clayey Sand w/Scattered Red Streaks and Lignite Particles (SC)			115.5	
10		X	100	J-2	55/6.00", 45/5.00" Light Tan Clayey Sand and White Calcium (Caliche)			110.5	
15		X	14	J-3	Tan Sand w/Scattered Clayey Sand Lenses (SP)				
20		X	63	J-4				100.5	
25		X	100	J-5	26/6.00", 50/6.00", 24/2.00" Light Tan and Gray Sand w/ Sandstone and Caliche Lenses (SP)				
30		X	100	J-6	21/6.00", 55/6.00", 29/3.00" Hard Rock Layer at 30.0'			91.5	
					Tan Clay			90.5	
35		X	100	J-7	35/6.00", 50/6.00", 15/4.00" Tan Sand and Gravel (SP)				
40		X	53	J-8	Tan, Light Gray, and Yellow Clayey Sand (SC)			84.5	
					CONTINUED				

LOG OF BORING
FOR

COLETO CREEK POWER STATION

DATE: June 25, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Core
BORING NO. DSS-27
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Tan, Light Gray, and Yellow Clayey Sand (SC)			82.5	
					Tan Sand and Gravel (SP)			80.5	
45			100	J-9	100/6.00"				
					Tan and Light Gray Silty Sand w/ Caliche Lenses (SM)				
			100	J-10	40/6.00", 60/4.00"			74.2	
50					Total Depth of Boring = 49.3 Feet				

Notes:
Project No. 4857
Boring Started: June 25, 1975 9:30 am
Boring Completed: June 25, 1975 11:30 am
Driller: Jenkins Bishop

Water Observations

Drilling fluid was bailed to the 30.0-foot depth. The hole was open to 40.0 feet and the water surface was at 32.5 feet on June 26, 1975.

Grout Record

Date: June 27, 1975
W.C. = 1.5/1.0 Cu. Ft. Water/Sack
Bentonite = 5.0%/Sack of Cement
Volume Mixed = 6.0 Cu. Ft.
Volume Used = 6.0 Cu. Ft.
Cement 3 Sacks, Bentonite 1/2 Sack
Grout Time: 2 Hours

Clearing

1 Hour

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 1 of 2

DATE: June 26, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Core
BORING NO. DSS-28
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground Surface Elevation=115.9 Ft.				
					Tan Silty Sand (SM)			114.9	
5			12	J-1	Brown, Tan, and Gray Clayey Sand (SC)				
								108.9	
10			13	J-2	Tan Clayey Sand and White Calcium (Caliche)				
								104.9	
					Tan and Gray Sand (SP)			102.4	
15			41	J-3	Tan and Gray Clayey Sand and Caliche (SC)				
20			45	J-4				95.4	
					Tan and Gray Sandy Clay w/ Caliche (CL)				
25			37	J-5					
					Tan and Gray Clayey Sand (SC)			88.9	
30			40	J-6				85.9	
					Tan and Gray Sand and Gravel w/ Clayey Sand Layers (SP)				
35			16	J-7					
40			52	J-8				76.1	
					Tan and Gray Sandy Clay w/ Caliche Layers (CL)				

CONTINUED

B-102

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 2 of 2

DATE: June 26, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Core
BORING NO. DSS-28
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Tan and Gray Sandy Clay w/Caliche Layers (CL)				
					-Light Tan Sandstone at 43.5'-44.5'			71.4	
45		X	100		-J-9, 50/6.00", 50/3.00"				
					Tan and Gray Sandy Clay w/Caliche and Calcium Pockets (CL)				
			100		-J-10, 100/2.00"			67.2	
50					Total Depth of Boring = 48.7 Feet				

Notes:
Project No. 4857
Boring Started: June 26, 1975 5:30 pm
Boring Completed: June 26, 1975 7:30 pm
Driller: Jenkins Bishop

Water Observations

Drilling fluid was used from the ground surface down and the fluid did not disperse.

Grout Record

Date: June 26, 1975
W.C. = 1.5/1.0 Cu. Ft. Water/Sack
Bentonite = 5.0%/Sack of Cement
Volume Mixed = 6.0 Cu. Ft.
Volume Used = 6.0 Cu. Ft.
Cement 3 Sacks, Bentonite 1/2 Sack
Grout Time: 2 Hours

Clearing

1 Hour

B-103

LOG OF BORING
FOR
COLETO CREEK POWER STATION

DATE: June 11, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Auger
BORING NO. DA-1
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground Surface Elevation=130.4 Ft.				
			---	-J-1	Brown Silty Sand (SM)			128.9	
			---	-J-2	Tan and Light Gray Clayey Sand w/ Red Streaks (SC)			127.4	
5			---	-J-3	Tan Clayey Sand w/Black Specks and Scattered Caliche Particles (SC)			123.4	
			---	-J-4	Light Gray Clay and White Calcium (Caliche)				
10			---	-J-5					
			---	-J-6					
15			---	-J-7	Tan Silty Sand w/Scattered Yellow Streaks (SM)			115.9	
			---	-J-8				111.4	
20					Light Tan Sand (SP)			109.9	
			---	-J-9	White Caliche (Hard)			109.4	
			---	-J-10	Reddish Tan and Light Tan Sand w/Scattered Gravel (SP)				
25			---	-J-11				105.4	
			---	-J-12	Reddish Tan Sand, Coarse-Grained, w/Scattered Gravel (SP)				
								102.4	
30					Light Tan Sand w/Scattered Gravel and Caliche (SP)			100.4	

Total Depth of Boring = 30.0 Feet

Notes:
Project No. 4857
Boring Started: June 11, 1975 10:00 am
Boring Completed: June 11, 1975 11:00 am
Driller: George Whitehead

Water Observations
Boring was advanced without fluid and groundwater was not encountered.

Grout Record
Date: June 17, 1975
Volume Mixed = 25.0 Cu. Ft. Concrete
Volume Used = 25.0 Cu. Ft. Concrete
Grout Time: 1 Hour
Clearing Time: 1/2 Hour

LOG OF BORING
FOR
COLETO CREEK POWER STATION

DATE: June 9, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Auger
BORING NO. DA-2
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground Surface Elevation=123.4 Ft.				
				J-1	Brown Clayey Sand w/Red Streaks (SC)				
				J-2				119.9	
5				J-3	Light Gray and Tan Clayey Sand (SC)				
				J-4					
				J-5					
				J-6				113.4	
10				J-7					
				J-8	Light Tan Silty Sand w/Scattered Gravel (SM)				
15									
				J-9				104.4	
20				J-10	Yellowish Tan Sand w/Scattered Gravel (SP)				
				J-11				101.9	
				J-12	Light Gray and Tan Sandy Clay (CL)				
25									
								94.9	
30				J-13	Yellowish Tan Clayey Sand (SC)			93.4	

Total Depth of Boring = 30.0 Feet

Notes:
Project No. 4857
Boring Started: June 9, 1975 5:30 pm
Boring Completed: June 10, 1975 10:00 am
Driller: Joe Castleberry

Water Observations
Boring was advanced without fluid and groundwater was not encountered.

Grout Record
Date: June 10, 1975 10:00 am-12:00 noon
Volume Mixed = 6.0 Cu. Ft.
Volume Used = 6.0 Cu. Ft.
Cement 3 Sacks, Bentonite 1/2 Sack
Grout Time: 1 Hour
Clearing Time: 1 Hour

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 1 of 2

DATE: June 19, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Split-Spoon w/ Permeability Tests
BORING NO. DA-3
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N - BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground Surface Elevation=127.6 Ft.				
		X	36	J-1	Reddish Tan, Brown, and Light Gray Clayey Sand w/Scattered Lignite Particles and Caliche Nodules (SC)				
5		X	40	J-2					
								121.1	
		X	100	J-3, 26/6.00", 74/6.00"	Light Gray Clayey Sand and White Calcium w/Scattered Gravel (Caliche)				
10									
15		X	100	J-4, 14/6.00", 34/6.00", 52/3.00"					
20		X	100	J-5, 22/6.00", 30/6.00", 44/5.00"				107.6	
					Light Gray and Tan Sand w/ Caliche Lenses (SP)				
25		X	100	J-6, 5/6.00", 55/6.00", 40/3.00"					
								100.1	
					Tan Sandstone				
			100	100/1.00"				97.6	
30					Light Gray Clayey Sand (SC)			96.1	
					Light Gray Clay w/Tan Streaks and Calcium Nodules (CH)				
35		X	34	J-7					
								90.1	
					Light Gray and Tan Sand (SP)				
40		X	66	J-8				87.6	
					CONTINUED				

B-106

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 2 of 2

DATE: June 19, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Split-Spoon
BORING NO. DA-3
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Light Gray Clay w/Tan Streaks and Calcium Nodules (CH)				
45		X	74	-J-9				81.1	
					Tan Sand w/Scattered Clay and Gravel Lenses (SP)				
50		X	21	-J-10				77.1	
					Total Depth of Boring = 50.5 Feet				
55					Notes: Project No. 4857 Boring Started: June 19, 1975 11:00 am Boring Completed: June 19, 1975 5:00 pm Driller: Joe Castleberry				

Water Observations

Drilling fluid was used in advancing the boring from the ground surface down and the fluid did not disperse.

Grout Record

Date: June 19, 1975 5:00 - 7:00 pm
W.C. = 1.5/1.0 Cu. Ft. Water/Sack
Bentonite = 5.0%/Sack of Cement
Volume Mixed = 14.0 Cu. Ft.
Volume Used = 14.0 Cu. Ft.
Cement 7 Sacks, Bentonite 1/2 Sack
Grouting: 2 Hours

Clearing

None

Permeability Tests

Depths	Depths
24.5-26.0	35.5-37.0
30.0-31.5	

Testing Time: 6 Hours

LOG OF BORING
FOR
COLETO CREEK POWER STATION

DATE: June 18, 1975 BORING NO. DA-4
PROJECT LOCATION: Fannin, Texas TYPE: Auger LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground Surface Elevation=124.3 Ft.				
			---	J-1	Tan Clayey Sand (SC)			123.3	
			---	J-2	Brown Clayey Sand (SC)			123.1	
			---	J-3	Tan Clayey Sand (SC)			120.3	
5			---	J-4	Tan and Light Gray Clayey Sand w/Red and Yellow Streaks (SC)			119.3	
			---	J-5	Tan and Light Gray Clayey Sand (SC)			116.3	
10			---	J-6	Tan Clayey Sand (SC)			113.3	
			---	J-7	Light Tan Silty Sand w/Scattered Gravel (SM)				
15			---	J-8				108.3	
			---	J-9	Tan Silty Sand w/Gray and Yellow Clay Lenses and Calcium Pockets (SM)			107.3	
			---	J-10	Light Tan Caliche w/Brown Clay Lenses, Sandstone, and Caliche Rock (Caliche)			106.3	
20			---					102.3	
			---	J-11	Yellowish Tan Silty Sand w/ Scattered Gravel (SM)				
25			---	J-12	Tan Silty Sand w/Scattered Gravel (SM)				
			---		Sandstone Layer at 25.0'				
				J-13	Sandstone Layer at 28.5'			95.5	
			---		Tan Silty Sand w/Yellow and Tan Clay Lenses (SM)			95.3	
30			---	J-14	Yellow and Tan Sandy Clay (CL)			94.3	

Total Depth of Boring = 30.0 Feet

Notes:

Project No. 4857
Boring Started: June 18, 1975 8:00 am
Boring Completed: June 18, 1975 9:00 am
Driller: George Whitehead

Water Observations

Boring was drilled without water and groundwater was not encountered.

Grout Record

Date: June 19, 1975
Volume Mixed = 23.0 Cu. Ft. Concrete
Volume Used = 23.0 Cu. Ft. Concrete
Grout Time: 1 Hour Clearing Time: None

Klapp-Hamilton & Assoc. Inc.

LOG OF BORING
FOR
COLETO CREEK POWER STATION

DATE: June 18, 1975 — BORING NO. DA-5
PROJECT LOCATION: Fannin, Texas — TYPE: Auger — LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION
					Ground Surface Elevation=124.3 Ft.			
			---	-J-1	Tan Silty Sand (SM)			123.3
			---	-J-2	Tan, Light Gray, and Red Clayey Sand (SC)			119.3
5			---	-J-3	Tan Clayey Sand w/Calcium Pockets (SC)			117.3
			---	-J-4	Light Tan Clayey Sand and White Calcium (Caliche)			
10			---	-J-5				
			---	-J-6				109.8
15			---	-J-7	Light Tan Silty Sand w/Loosely Cemented Sandstone Layers (SM)			104.3
20			---	-J-8	Light Tan Silty Sand w/Sandstone Lenses and Scattered Gravel (SM)			101.3
			---	-J-9	Tan Sand w/Scattered Gravel and Sandstone Lenses (SP)			
25			---	-J-10				
			---	-J-11				94.3
30					Total Depth of Boring = 30.0 Feet			

Notes:
Project No. 4857
Boring Started: June 18, 1975 9:00 am
Boring Completed: June 18, 1975 10:00 am
Driller: George Whitehead

Water Observations

Boring was drilled without fluid and groundwater was not encountered.

Grout Record

Date: June 19, 1975
Volume Mixed = 23.0 Cu. Ft. Concrete
Volume Used = 23.0 Cu. Ft. Concrete
Grout Time: 1 Hour Clearing Time: None

Klepp-Hamilton & Assoc. Inc.

LOG OF BORING
FOR
COLETO CREEK POWER STATION

DATE: June 12, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Auger
BORING NO. DA-6
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION
					Ground Surface Elevation=117.0 Ft.			
				J-1	Brown Silty Sand (SM)			116.3
				J-2	Reddish Tan, Brown, and Light Gray Clayey Sand (SC)			113.0
5				J-3	Light Tan Clayey Sand and White Calcium w/Caliche Nodules (Caliche)			
				J-4				
10				J-5				105.0
				J-6	Tan Silty Sand w/Scattered Gravel (SM)			101.0
15				J-7	Tan Sand w/Gravel, Caliche Particles, and Scattered Clayey Sand Layers (SP)			
				J-8				95.0
20				J-9	Tan Sand, Coarse-Grained, w/ Scattered Gravel (SP)			91.0
25					Total Depth of Boring = 26.0 Feet			
					Excessive caving occurred below 22.0 feet and drilling was halted at 26.0 feet.			
30					Notes:			

DEPTH SCALE

Project No. 4857
Boring Started: June 12, 1975 4:35 pm
Boring Completed: June 12, 1975 5:13 pm
Driller: George Whitehead

Water Observations

Boring was advanced without drilling fluid and groundwater was not encountered.

Grout Record

Date: June 17, 1975
Volume Mixed = 23.0 Cu. Ft. Concrete
Volume Used = 23.0 Cu. Ft. Concrete
Grout Time: 1 Hour
Clearing Time: None

LOG OF BORING
FOR
COLETO CREEK POWER STATION

DATE: June 12, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Auger
BORING NO. DA-7
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N - BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground Surface Elevation=110.2 Ft.				
				J-1	Dark Gray Clayey Silt w/ Calcareous Particles (ML)			109.7	
				J-2					
5				J-3	Light Tan Silty Sand w/Caliche Particles and Scattered Sandstone Gravel (Caliche)			102.2	
				J-4					
10				J-5	Light Tan Silty Sand w/Sandstone Layers, Caliche Particles, and Quartz Gravel (Caliche)				
15				J-6				94.2	
				J-7	Tan and Light Gray Clayey Sand w/ Scattered Gravel and Caliche Particles (SC)			91.2	
20				J-8	Light Tan Silty Sand w/Scattered Clayey Sand Lenses (SM)			90.2	
				J-9	Tan and Light Gray Clayey Sand w/Yellow Streaks (SC)			86.2	
25					▼ W.S. 6-12-75			84.2	
					Light Gray Clayey Sand w/Scattered Caliche Particles and Sandstone Gravel (SC)			82.2	
30									

Total Depth of Boring = 28.0 Feet
Excessive caving occurred below 26.0 feet and drilling was halted at 28.0 feet.

Notes:
Project No. 4857
Boring Started: June 12, 1975 1:30 pm
Boring Completed: June 12, 1975 2:45 pm
Driller: George Whitehead

Water Observations

Water surface was encountered at 26.0 feet on June 12, 1975, and it was at 20.0 feet on June 17, 1975.

Grout Record

Date: June 17, 1975
Volume Mixed = 24.0 Cu. Ft. Concrete
Volume Used = 24.0 Cu. Ft. Concrete
Grout Time: 1 Hour Clearing Time: 1 Hour

Klepp-Hamilton & Assoc. Inc.

LOG OF BORING
FOR
COLETO CREEK POWER STATION

DATE: June 11, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Auger
BORING NO. DA-8
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION
					Ground Surface Elevation=123.7 Ft.			
			---	J-1	Brown, Red, and Light Gray Clayey Sand (SC)			122.7
			---	J-2	Light Gray and Tan Clayey Sand w/Red Streaks (SC)			119.2
5			---	J-3	Light Brown Clay and White Calcium (Caliche)			115.7
10			---	J-4	Tan Clayey Sand w/Scattered Caliche Particles and Calcium Nodules (SC)			112.7
15			---	J-5	Light Gray Clay and White Calcium (Caliche)			
			---	J-6				105.7
20			---	J-7	Tan Clayey Sand w/Scattered Caliche Particles (SC)			102.7
			---	J-8	Light Tan Silty Sand (SM)			98.7
25			---	J-9	Tan Sand w/Scattered Sandstone Lenses and Gravel (SP)			95.7
			---	J-10	Tan Sand w/Clayey Sand Lenses (SP)			93.9
30					Tan Sandstone			93.7

Total Depth of Boring = 30.0 Feet

Notes:
Project No. 4857
Boring Started: June 11, 1975 5:30 pm
Boring Completed: June 11, 1975 6:20 pm
Driller: George Whitehead

Water Observations
Boring was advanced without fluid and groundwater was not encountered

Grout Record
Date: June 17, 1975
Volume Mixed = 24.0 Cu. Ft. Concrete
Volume Used = 24.0 Cu. Ft. Concrete
Grout Time: 1 Hour

Klepp-Hamilton & Assoc. Inc.

LOG OF BORING
FOR
COLETO CREEK POWER STATION

DATE: June 12, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Auger
BORING NO. DA-9
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION
					Ground Surface Elevation=122.8 Ft.			
			---	J-1	Brown Silty Sand (SM)			122.3
			---	J-2	Brown, Red, and Light Gray Clayey Sand (SC)			119.3
5			---	J-3	Tan and Light Gray Clayey Sand and White Calcium (Caliche)			
			---	J-4				113.8
10					Tan and Light Gray Clayey Sand and White Calcium w/Caliche Gravel (Caliche)			111.3
			---	J-5	Light Tan Silty Sand (SM)			
15			---	J-6	Tan Sand w/Scattered Gravel (SP)			107.8
			---	J-7				105.0
					Light Tan Sandstone (Hard)			104.8
20					Total Depth of Boring = 18.0 Feet			

Auger would not penetrate the sandstone deeper.

Notes:
Project No. 4857
Boring Started: June 12, 1975 8:30 am
Boring Completed: June 12, 1975 9:10 am
Driller: George Whitehead

Water Observations

Boring was advanced without fluid and groundwater was not encountered.

Grout Record

Date: June 18, 1975
Volume Mixed = 14.0 Cu. Ft. Concrete
Volume Used = 14.0 Cu. Ft. Concrete
Grout Time: 1 Hour
Clearing Time: 1/2 Hour

Klapp-Hamilton & Associates, Inc.

LOG OF BORING
FOR
COLETO CREEK POWER STATION

DATE: June 11, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Auger
BORING NO. DA-10
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground Surface Elevation=119.5 Ft.				
			---	J-1	Brown and Yellowish Tan Clayey Sand (SC)				
								116.5	
5			---	J-2	Light Gray and Tan Clayey Sand w/ Scattered Calcium Nodules (SC)				
								112.5	
10			---	J-3	Tan Clayey Sand w/Gravel (SC)				
								106.5	
15			---	J-4	Tan Silty Sand (SM)				
			---	J-5					
								101.5	
20			---	J-6	Light Tan Silty Sand w/Scattered Gravel (SM)				
								97.0	
			---	J-7	Tan Sand w/Scattered Gravel and Clayey Sand Lenses (SP)				
25								94.5	
			---		Tan Sand w/Scattered Gravel, Sandstone Lenses, and Clayey Sand Lenses (SP)			93.5	
				J-8	Yellowish Tan Sand w/Scattered Gravel (SP)			91.0	
30					Tan Sandstone			90.8	

Total Depth of Boring = 28.7 Feet
Auger would not penetrate the sandstone deeper.

Notes:
Project No. 4857
Boring Started: June 11, 1975 3:30 pm
Boring Completed: June 11, 1975 3:55 pm
Driller: George Whitehead

Water Observations

Boring was advanced without fluid and groundwater was not encountered.

Grout Record

Date: June 18, 1975
Volume Mixed = 20.0 Cu. Ft. Concrete
Volume Used = 20.0 Cu. Ft. Concrete
Grout Time: 1 Hour Clearing Time: 1 Hour

Klepp-Hamilton & Assoc. Inc.

LOG OF BORING
FOR
COLETO CREEK POWER STATION

DATE: June 11, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Auger
BORING NO. DA-11
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION
					Ground Surface Elevation=127.5 Ft.			
			---	-J-1	Brown, Red, and Tan Silty Clayey Sand (SM-SC)			125.5
5			---	-J-2	Tan and Light Gray Clayey Sand w/ Black Specks and Scattered Red Streaks (SC)			121.5
10			---	-J-3	Light Gray and Tan Clayey Sand w/ Black Specks and Scattered Caliche (SC)			116.5
			---	-J-4	Tan Clayey Sand w/Black Specks (SC)			113.0
15			---	-J-5	Light Gray Clay and Calcium (Caliche)			109.5
20			---	-J-6	Tan Silty Sand (SM)			106.5
			---	-J-7	Tan Sand w/Scattered Gravel (SP)			
25			---	-J-8				102.2
					Tan Sandstone			102.0
30					Total Depth of Boring = 25.5 Feet Auger would not penetrate sandstone deeper.			

Notes:
Project No. 4857
Boring Started: June 11, 1975 1:00 pm
Boring Completed: June 11, 1975 1:40 pm
Driller: George Whitehead

Water Observations

Boring was advanced without fluid and groundwater was not encountered.

Grout Record

Date: June 18, 1975
Volume Mixed = 18.0 Cu. Ft. Concrete
Volume Used = 18.0 Cu. Ft. Concrete
Grout Time: 1 Hour
Clearing Time: 1 Hour

Klapp-Hamilton & Assoc. Inc.

LOG OF BORING
FOR
COLETO CREEK POWER STATION

DATE: June 13, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Auger
BORING NO. DA-12
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION
					Ground Surface Elevation=124.8 Ft.			
				J-1	Brown Silty Sand (SM)			124.3
				J-2	Tan, Red, and Light Gray Clayey Sand (SC)			121.8
5				J-3	Light Gray and Tan Clayey Sand (SC)			
				J-4				
10				J-5				114.8
				J-6	Tan and Light Gray Clayey Sand and White Calcium w/Caliche Gravel (Caliche)			
15				J-7	Tan Clayey Sand and White Calcium and Scattered Gravel (Caliche)			111.3
				J-8	Tan and Red Clayey Sand (SC)			109.3
20					Light Gray Clayey Sand and White Calcium w/Scattered Red Streaks (Caliche)			107.3
				J-9	Light Gray Clayey Sand w/Sandstone Lenses and Scattered Red Streaks (SC)			104.8
25				J-10	Yellowish Tan and Light Gray Clay w/Scattered Calcium and Black Specks (Hard) (CH)			102.8
				J-11				98.8
30								

Total Depth of Boring = 26.0 Feet
Auger would not penetrate the hard clay deeper.

Notes:
Project No. 4857
Boring Started: June 13, 1975 3:45 pm
Boring Completed: June 13, 1975 4:45 pm
Driller: George Whitehead

Water Observations
Boring was advanced without fluid and groundwater was not encountered.

Grout Record
Date: June 17, 1975
Volume Mixed = 22.0 Cu. Ft. Concrete
Volume Used = 22.0 Cu. Ft. Concrete
Grout Time: 1 Hour Clearing Time: 2 Hrs.

Klepp-Hamilton & Assoc. Inc.

LOG OF BORING
FOR
COLETO CREEK POWER STATION

DATE: June 13, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Auger BORING NO. DA-13
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground Surface Elevation=128.0 Ft.				
				J-1	Brown Silty Sand (SM)			127.5	
				J-2	Brown and Tan Clayey Sand w/Red Streaks (SC)			125.0	
5				J-3	Gray Clayey Sand w/Red and Black Specks and Calcium Particles (SC)			123.0	
				J-4	Light Gray Clayey Sand w/Black Specks, Red Streaks, and Calcium Nodules (SC)				
10				J-5					
				J-6	Tan Clayey Sand (SC)			118.0	
				J-7	Light Gray Clayey Sand w/Calcium Nodules and Black Specks (SC)			117.0	
				J-8	Light Gray and Yellow Clayey Sand w/Scattered Gravel (SC)			116.0	
15				J-9	Light Gray Clayey Sand and White Calcium (Caliche)			114.0	
				J-10	Tan Sand, Slightly Clayey (SP)			110.0	
20				J-11					
				J-12	Yellowish Tan Sand, Coarse-Grained, w/Scattered Gravel, Clayey Sand Layers, and Caliche Particles (SP)			106.0	
25				J-13	Tan Sand w/Sandstone Layers (SP)			104.0	
					Tan Sandstone			103.2	
								103.0	

Total Depth of Boring = 25.0 Feet
Auger would not penetrate the sandstone deeper.

Notes:
Project No. 4857
Boring Started: June 13, 1975 2:30 pm
Boring Completed: June 13, 1975 3:15 pm
Driller: George Whitehead

Water Observations
Boring was advanced without fluid and groundwater was not encountered.

Grout Record
Date: June 17, 1975
Volume Mixed = 22.0 Cu. Ft. Concrete
Volume Used = 22.0 Cu. Ft. Concrete
Grout Time: 1 Hour Clearing Time: 1.5 Hrs.

Klapp-Hamilton & Assoc. Inc.

LOG OF BORING FOR COLETO CREEK POWER STATION

DATE: June 11, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Auger
BORING NO. DA-14
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION
					Ground Surface Elevation=132.6 Ft.			
			---	J-1	Tan Silty Sand (SM)			131.6
			---	J-2	Tan Clayey Sand w/Red Streaks (SC)			129.6
			---	J-3	Light Tan Silty Sand (Loosely Cemented) (SM)			128.6
5			---	J-4	Light Gray Clayey Sand w/Tan and Red Streaks (SC)			125.6
			---	J-5	Light Gray and Tan Clayey Sand w/Caliche (SC)			
10			---	J-6				
			---	J-7	Light Gray Clay and White Calcium (Caliche)			121.1
15			---	J-8				
			---	J-9				
20			---	J-10	Tan Silty Sand w/Scattered Gravel (SM)			112.6
			---	J-11				
25			---	J-12				
			---	J-13				
					Tan Sandstone			104.3
30								104.1

Total Depth of Boring = 28.5 Feet
Auger would not penetrate the sandstone deeper.

Notes:
Project No. 4857
Boring Started: June 11, 1975 8:00 am
Boring Completed: June 11, 1975 9:45 am
Driller: George Whitehead

Water Observations
Boring was advanced without fluid and groundwater was not encountered

Grout Record
Date: June 17, 1975
Volume Mixed = 25.0 Cu. Ft. Concrete
Volume Used = 25.0 Cu. Ft. Concrete
Grout Time: 1 Hour Clearing Time: 1 Hour

LOG OF BORING
FOR
COLETO CREEK POWER STATION

DATE: June 18, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Auger
BORING NO. DA-15
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground Surface Elevation=117.3 Ft.				
				J-1	Tan Silty Sand (SM)				
								114.3	
5				J-2	Tan Silty Sand w/Tan, Gray, and Red Clayey Sand Lenses (SM)			112.3	
				J-3	Tan and Gray Clayey Sand w/ Yellow Streaks (SC)			111.3	
				J-4	Light Brown Sand (SP)			109.3	
10				J-5	Tan Sand (SP)			107.3	
				J-6	Tan Sand w/Scattered Gravel (SP)				
								103.3	
15				J-7	Light Tan Sand (SP)			101.3	
					Tan Sand w/Clay Lenses (SP)			99.3	
				J-8	Light Gray and Yellow Clayey Sand (SC)			97.3	
20					Light Tan Sand (SP)			96.3	
				J-9	Light Brown Sand (Moist) (SP) – Very Moist at 23.0'				
								92.8	
25				J-10	Tan, Light Gray, and Yellow Clayey Sand w/Clay Lenses and Sand Lenses (SC)				
				J-11					
30				J-12				87.3	

Total Depth of Boring = 30.0 Feet

Notes:
Project No. 4857
Boring Started: June 18, 1975 1:00 pm
Boring Completed: June 18, 1975 2:00 pm
Driller: George Whitehead

Water Observations
Boring was drilled without fluid and groundwater was not encountered.

Grout Record
Date: June 19, 1975
Volume Mixed = 23.0 Cu. Ft. Concrete
Volume Used = 23.0 Cu. Ft. Concrete
Grouting Time: 1 Hour
Clearing Time: 1 Hour

Klapp-Hamilton & Assoc. Inc.

LOG OF BORING
FOR
COLETO CREEK POWER STATION

DATE: June 18, 1975 — BORING NO. DA-16

PROJECT LOCATION: Fannin, Texas — TYPE: Auger — LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION
					Ground Surface Elevation=118.8 Ft.			
				J-1	Brown Silty Sand (SM)			117.8
				J-2	Tan and Light Gray Clayey Sand w/ Yellow Streaks (SC)			115.8
5				J-3	Tan and Light Gray Clayey Sand w/Red and Yellow Streaks (SC)			
				J-4				109.8
10				J-5	Light Gray and Tan Clayey Sand w/ Black Specks (SC)			106.8
				J-6	Light Gray Clay w/Calcium Pockets (CH)			105.8
15				J-7	Tan Silty Sand (SM)			103.8
					Tan Sand (SP)			102.8
				J-8	Tan and Gray Sand w/Gravel (SP)			101.8
				J-9	Light Tan Silty Sand (SM)			99.8
20				J-10	Tan and Yellow Sand w/Scattered Gravel and Clay Lenses (SP)			97.8
				J-11	Light Tan Silty Sand (SM)			
25								92.8
				J-12	Light Gray and Tan Clayey Sand (SC)			90.8
				J-13	Light Gray Clayey Sand and White			
30				J-14	Calcium (Caliche)			88.8

Total Depth of Boring = 30.0 Feet

Notes:

Project No. 4857

Boring Started: June 18, 1975 2:00 pm

Boring Completed: June 18, 1975 3:00 pm

Driller: George Whitehead

Water Observations

Boring was drilled without fluid and groundwater was not encountered.

Grout Record

Date: June 19, 1975

Volume Mixed = 23.0 Cu. Ft. Concrete

Volume Used = 23.0 Cu. Ft. Concrete

Grout Time: 1 Hour

Clearing Time: None

LOG OF BORING
FOR
COLETO CREEK POWER STATION

DATE: June 11, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Auger
BORING NO. DA-17
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground Surface Elevation=123.3 Ft.				
			---	-J-1	Tan Silty Sand (SM)			121.8	
			---	-J-2	Tan and Light Gray Clayey Sand w/Red Streaks (SC)			118.3	
5			---	-J-3	Light Gray and Tan Clayey Sand w/ Red Streaks and Black Specks (SC)			114.3	
10			---	-J-4	Red, Light Gray, and Tan Clayey Sand (SC)			111.3	
			---	-J-5	Tan Clayey Sand w/Scattered Red Streaks (SC)				
15			---	-J-6				105.8	
			---	-J-7	Tan Sand, Slightly Clayey, w/ Gravel and Red Streaks (SP)			103.3	
20			---	-J-8	Light Tan Silty Sand, Slightly Clayey (SM)			100.3	
			---	-J-9	Red, Tan, and Light Gray Clayey Sand w/Gravel (SC)				
25			---	-J-10				95.3	
			---	-J-11	Tan Silty Sand (SM)			93.3	
30					Total Depth of Boring = 30.0 Feet				

Notes:
Project No. 4857
Boring Started: June 11, 1975 1:45 pm
Boring Completed: June 11, 1975 2:45 pm
Driller: George Whitehead

Water Observations
Boring was advanced without fluid and groundwater was not encountered.

Grout Record
Date: June 18, 1975
Volume Mixed = 23.0 Cu. Ft. Concrete
Volume Used = 23.0 Cu. Ft. Concrete
Grout Time: 1 Hour
Clearing Time: 1/2 Hour

Klepp-Hamilton & Assoc. Inc.

LOG OF BORING
FOR
COLETO CREEK POWER STATION

DATE: June 11, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Auger
BORING NO. DA-18
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION
					Ground Surface Elevation=118.8 Ft.			
			---	J-1	Brown, Tan, and Light Gray Clayey Sand (SC)			116.3
5			---	J-2	Tan and Light Gray Clayey Sand w/ Scattered Red Specks and Gravel (SC)			113.8
			---	J-3	Light Gray and Tan Clayey Sand w/ Black Specks and Calcium Nodules (SC)			110.8
10			---	J-4	Light Gray Clay and White Calcium (Caliche)			108.8
			---	J-5	Tan and Light Gray Silty Sand, Slightly Clayey (SM)			103.8
15			---	J-6	Tan Sand w/Brown Gravel (SP)			102.8
			---	J-7	Light Gray Clay and White Calcium w/Caliche and Gravel (Caliche)			100.8
20			---	J-8	Light Tan Sand (SP)			96.8
			---	J-9	Tan Sand w/Scattered Gravel and Clayey Sand Lenses (SP)			94.8
25			---	J-10	Light Tan Sand (SP)			90.8
30			---	J-11	Light Tan Sand w/Scattered Gravel and Caliche (SP)			88.8

Total Depth of Boring = 30.0 Feet

Notes:
Project No. 4857
Boring Started: June 11, 1975 2:45 pm
Boring Completed: June 11, 1975 3:20 pm
Driller: George Whitehead

Water Observations
Boring was advanced without fluid and groundwater was not encountered.

Grout Record
Date: June 18, 1975
Volume Mixed = 22.0 Cu. Ft. Concrete
Volume Used = 22.0 Cu. Ft. Concrete
Grout Time: 1 Hour
Clearing Time: 1/2 Hour

Klapp-Hamilton & Assoc. Inc.

LOG OF BORING
FOR
COLETO CREEK POWER STATION

DATE: June 11, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Auger
BORING NO. DA-19
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground Surface Elevation=117.7 Ft.				
			---	J-1	Brown Sandy Silt (ML)			116.2	
			---	J-2	Reddish Brown Clayey Sand (SC)			113.7	
5			---	J-3	Tan and Light Gray Clayey Sand w/Red Streaks (SC)			109.2	
10			---	J-4	Light Gray Clay and White Calcium (Caliche)			105.7	
			---	J-5	Tan to Light Tan Sand (SP)			102.7	
15			---	J-6	Tan Sand w/Scattered Sandstone Lenses (SP)			98.2	
20			---	J-7	Tan Sand w/Scattered Gravel and Caliche (SP)				
			---	J-8					
25			---	J-9				91.7	
					Total Depth of Boring = 26.0 Feet				
30					Excessive caving occurred below 12.0 feet and drilling was halted at 26.0 feet.				

Notes:
Project No. 4857
Boring Started: June 11, 1975 4:30 pm
Boring Completed: June 11, 1975 5:15 pm
Driller: George Whitehead

Water Observations
Boring was advanced without fluid and groundwater was not encountered.

Grout Record
Date: June 17, 1975
Volume Mixed = 21.0 Cu. Ft. Concrete
Volume Used = 21.0 Cu. Ft. Concrete
Grout Time: 1 Hour
Clearing Time: None

Klapp-Hamilton & Assoc. Inc.

LOG OF BORING
FOR
COLETO CREEK POWER STATION

DATE: June 13, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Auger
BORING NO. DA-20
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION
					Ground Surface Elevation=103.4 Ft.			
				J-1	Dark Brown Sandy Silt (ML)			102.9
				J-2	Tan Sandy Clay and White Calcium (Caliche)			101.4
				J-3	Tan Sandy Silt w/Scattered Gravel (ML)			99.4
5				J-4	Tan and Light Tan Silty Sand w/ Scattered Gravel and Caliche Nodules (SM)			96.4
				J-5	Tan Sandy Silt and White Calcium w/Scattered Gravel (Caliche)			
10				J-6	Tan Clayey Sand w/Caliche and Scattered Gravel (SC)			92.4
								90.4
15				J-7	Light Tan and Tan Sand w/ Scattered Gravel (SP)			
				J-8				
20				J-9	Light Tan and Yellow Sand, Coarse-Grained, w/Scattered Gravel (SP)			83.4
				J-10				
25					W.S. 6-13-75			79.4
					Light Gray and Tan Clayey Sand w/ Small Roots (SC)			78.4
				J-11	Tan Sand, Coarse-Grained (SP)			76.4
30								

Total Depth of Boring = 27.0 Feet
Drilled halted due to excessive caving.

Notes:
Project No. 4857
Boring Started: June 13, 1975 8:45 am
Boring Completed: June 13, 1975 9:50 am
Driller: George Whitehead

Water Observations
Groundwater was encountered at 25.0 feet below the ground surface.

Grout Record
Date: June 17, 1975
Volume Mixed = 23.0 Cu. Ft. Concrete
Volume Used = 23.0 Cu. Ft. Concrete
Grout Time: 1 Hour
Clearing Time: 3 Hours

Klepp-Hamilton & Assoc. Inc.

LOG OF BORING
FOR
COLETO CREEK POWER STATION

DATE: June 11, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Auger
BORING NO. DB-1
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION
					Ground Surface Elevation=132.1 Ft.			
			---	-J-1	Reddish Tan and Tan Clayey Sand (SC)			
			---	-J-2				128.6
5			---	-J-3	Light Gray and Tan Clayey Sand w/Red Streaks (SC)			
			---	-J-4				123.1
10			---	-J-5	Red, Light Gray, and Tan Clayey Sand w/Scattered Lignite Particles (SC)			120.1
			---	-J-6	Tan Clayey Sand (SC)			117.1
15			---	-J-7	Tan Clayey Sand and White Calcium w/Scattered Gravel (Caliche)			
			---	-J-8				112.6
20			---		Light Tan Sandstone, Hard, w/ Scattered Gravel			111.1
			---	-J-9	Light Tan Sand w/Scattered Gravel (SP)			110.1
			---					108.6
25				-J-10	Light Tan Sandstone, Hard, w/			
				-J-11	Scattered Gravel			

Total Depth of Boring = 23.5 Feet
Auger would not penetrate the sandstone deeper.

Notes:
Project No. 4857
Boring Started: June 11, 1975 11:05 am
Boring Completed: June 11, 1975 12:00 noon
Driller: George Whitehead

Water Observations

Boring was advanced without fluid and groundwater was not encountered.

Grout Record

Date: June 17, 1975
Volume Mixed = 34.0 Cu. Ft. Concrete
Volume Used = 34.0 Cu. Ft. Concrete
Grout Time: 1 Hour Clearing Time: None

Large Bag Samples

Sample Depths

0.0- 3.0	9.0-14.0
4.0- 9.0	15.0-19.5

LOG OF BORING
FOR
COLETO CREEK POWER STATION

DATE: June 12, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Auger
BORING NO. DB-2
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground Surface Elevation=124.8 Ft.				
				J-1	Brown Silty Sand (SM)			124.3	
				J-2	Brown, Tan, and Light Gray Clayey Sand (SC)				
5								119.8	
				J-3	Brown and Tan Clayey Sand and White Calcium (Caliche)				
								115.8	
10				J-4	Tan Clayey Sand and White Calcium w/Caliche Gravel (Caliche)				
				J-5					
								110.8	
15				J-6	Tan Clayey Sand w/Scattered Gravel and Caliche (SC)				
				J-7					
20				J-8					
				J-9	Tan and Light Gray Caliche, Hard, w/Black Specks			102.8	
								101.8	
25									

Total Depth of Boring = 23.0 Feet
Auger would not penetrate the caliche deeper.

Notes:
Project No. 4857
Boring Started: June 12, 1975 11:30 am
Boring Completed: June 12, 1975 12:15 pm
Driller: George Whitehead

Water Observations

Boring was advanced without fluid and groundwater was not encountered.

Grout Record

Date: June 17, 1975
Volume Mixed = 33.0 Cu. Ft. Concrete
Volume Used = 33.0 Cu. Ft. Concrete
Grout Time: 1 Hour Clearing Time: 1 Hour

Large Bag Samples

Sample Depths

0.5-4.0	9.0-13.0
5.0-9.0	14.0-18.0

Klapp-Hamilton & Assoc. Inc.

LOG OF BORING
FOR
COLETO CREEK POWER STATION

DATE: June 12, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Auger
BORING NO. DB-3
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION
					Ground Surface Elevation=119.3 Ft.			
			---	-J-1	Dark Brown Sandy Clay (CL)			
			---	-J-2	Tan and Brown Clayey Sand w/Red Streaks (SC)			117.3
5			---	-J-3	Tan and Light Gray Clayey Sand and White Calcium w/Caliche Gravel and Loosely Cemented Zones (Caliche)			113.3
10			---	-J-4				
15			---	-J-5	Tan Silty Sand w/Scattered Gravel and Calcium Nodules (SM)			105.3
			---	-J-6				
			---	-J-7	Tan Sand w/Gravel (SP)			101.3
20					Tan Sandstone w/Gravel (Loosely Cemented)			99.3
					Tan Sandstone, Hard			98.3
								98.0
25								

Total Depth of Boring = 21.3 Feet
Auger would not penetrate sandstone deep deeper.

Notes:
Project No. 4857
Boring Started: June 12, 1975 3:30 pm
Boring Completed: June 12, 1975 4:10 pm
Driller: George Whitehead

Water Observations
Boring was advanced without fluid and did not encounter groundwater.

Grout Record
Date: June 17, 1975
Volume Mixed = 32.0 Cu. Ft. Concrete
Volume Used = 32.0 Cu. Ft. Concrete
Grout Time: 1 Hr. Clearing: 1.75 Hrs.

Large Bag Samples
Sample Depths

0.0- 2.0	7.0-14.0
2.0- 6.0	14.0-18.0

LOG OF BORING FOR COLETO CREEK POWER STATION

DATE: June 9, 1975
PROJECT LOCATION: Fannin, Texas TYPE: Auger BORING NO. DB-4 LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground Surface Elevation=124.2 Ft.				
				J-1	Brown Silty Sand (SM)				
				J-2	Brown, Tan, and Red Clayey Sand (SC)			122.7	
5				J-3	Brown, Tan, and Light Gray Clayey Sand (SC)			120.7	
				J-4				119.7	
				J-5	Light Tan Clayey Sand and White Calcium (Caliche)				
10				J-6					
15				J-7					
				J-8					
20				J-9	Light Tan Sand w/Scattered Gravel (SP)			104.2	
				J-10					
				J-11					
25				J-12					
					Total Depth of Boring = 25.0 Feet			99.2	

Notes:
Project No. 4857
Boring Started: June 9, 1975 1:15 pm
Boring Completed: June 9, 1975 3:15 pm
Driller: Joe Castleberry

Water Observations
Boring was advanced without fluid and groundwater was not encountered.

Grout Record
Date: June 9, 1975
Volume Mixed = 6.0 Cu. Ft.
Volume Used = 6.0 Cu. Ft.
Cement 3 Sacks, Bentonite 1/2 Sack
Grout Time: 2 Hours
Clearing Time: None

LOG OF BORING
FOR
COLETO CREEK POWER STATION

DATE: June 12, 1975 BORING NO. DB-5
PROJECT LOCATION: Fannin, Texas TYPE: Auger LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION
					Ground Surface Elevation=132.2 Ft.			
				J-1	Reddish Tan Sand (SP)			131.7
				J-2	Tan, Light Gray, and Red Clayey Sand (SC)			128.7
5				J-3	Light Tan Clayey Sand w/Scattered Red Streaks (SC)			124.2
10				J-4	Light Tan and Red Clayey Sand (SC)			
				J-5				117.7
15				J-6	Tan Clayey Sand w/Sand Layers and Scattered Gravel (SC)			113.2
20				J-7	Light Tan Sand w/Scattered Clayey Sand Lenses (SP)			109.7
					Tan Clayey Sand w/Gravel (SC)			109.2
				J-8	Tan Clayey Sand (SC)			108.2
25				J-9	Light Tan Silty Sand (SM)			107.2

Total Depth of Boring = 25.0 Feet

Notes:
Project No. 4857
Boring Started: June 12, 1975 10:20 am
Boring Completed: June 12, 1975 11:00 am
Driller: George Whitehead

Water Observations

Boring was drilled without fluid and groundwater was not encountered.

Grout Record

Date: June 18, 1975
Volume Mixed = 35.0 Cu. Ft. Concrete
Volume Used = 35.0 Cu. Ft. Concrete
Grout Time: 1 Hour Clearing Time: 2.5 Hours

Large Bag Samples

Sample Depths

1.0- 3.0 4.0- 7.0
9.0-13.0 15.0-18.0
19.0-22.0

Klapp-Hamilton & Assoc. Inc.

LOG OF BORING FOR COLETO CREEK POWER STATION

Sheet 1 of 3

DATE: May 15, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. SY-1
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground Surface Elevation=125.5 Ft.				
		X	8	J-1, J-2	Light Tan Sand w/Clayey Sand Layers (SM)			124.0	
					Light Tan and Brown Sandy Clay w/Red Streaks (CL)			121.5	
5				S-1	Light Tan Clayey Sand w/Brown Sandy Clay Lenses, Red Streaks, and Caliche Particles (SC)			118.5	
10		X	36	J-3	Light Tan Clayey Sand w/Caliche Nodules and Black Specks (SC)				
15		X	44	J-4				109.0	
					Light Tan Sand, Coarse-Grained, w/Gravel (SP)				
20		X	44	J-5				102.5	
					Tan Sand w/Caliche (SP)				
25		X	100	J-6, 45/6.00", 55/6.00"				100.0	
					Yellow and Light Tan Sand and Gravel w/Clayey Sand Lenses (SP)			96.0	
30		X	60	J-7, J-8	Light Tan and Tan Sandy Clay w/ Clayey Sand Layers, Caliche Nodules, and Black Specks (CL)			95.5	

CONTINUED

LOG OF BORING
FOR
COLETO CREEK POWER STATION

Sheet 2 of 3

DATE: May 15, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. SY-1
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Light Tan and Tan Sandy Clay w/ Clayey Sand Layers, Caliche Nodlues, and Black Specks (CL)			93.5	
35				S-2	Light Tan Clayey Sand w/Light Tan Sand Layers, Yellow Streaks, and Caliche Gravel (SC)			86.5	
40			64	J-9	Light Tan Clayey Sand w/Caliche Nodules and Black Specks (SC)			82.5	
					Yellow and Light Tan Sandy Clay w/ Caliche Nodules and Black Specks (CL)			80.5	
45			49	J-10, J-11				78.5	
					Light Tan Clayey Sand w/Sand Layers and Black Specks (SC)			77.0	
					Yellow and Light Tan Sandstone				
50			100	J-12, 100/6.00"	Light Tan Clayey Sand w/Sandstone Lenses, Caliche Nodules, and Black Specks (SC)			73.5	
					Light Tan Sand w/Gravel, Clayey Sand Lenses, and Black Specks (SP)				
55			100	J-13, 45/6.00", 55/6.00"				66.5	
60			63	J-14	Light Tan Clayey Sand w/Light Tan Sand, Caliche Particles, Yellow Streaks, and Black Specks (SC)				

CONTINUED

Klapp-Hamilton & Assoc. Inc.

LOG OF BORING FOR COLETO CREEK POWER STATION

DATE: May 15, 1975 BORING NO. SY-1
PROJECT LOCATION: Fannin, Texas TYPE: Core LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Light Tan Clayey Sand w/Light Tan Sand, Caliche Particles, Yellow Streaks, and Black Specks (SC)			62.5	
65		X	50	J-15	Light Tan Clay w/Tan Streaks, Calcium Pockets, and Black Specks (CH)			56.5	
70			---	S-3	Light Tan and Tan Clay w/Black Specks (CH)			55.4	
					Light Tan and Tan Sandy Clay w/ Black Specks (CL)				
75		X	42	J-16				50.0	
					Total Depth of Boring = 75.5 Feet				
80					Notes:				

Project No. 4857
Boring Started: May 15, 1975 1:30 p.m.
Boring Completed: May 15, 1975 5:00 p.m.

Driller: Joe Castleberry

Water Observations

Date Time Depth

Advanced boring with drilling fluid from the ground surface down and it did not disperse.

Grout Record

Date: 5-16-75 8:00 a.m. to 10:00 a.m.

W.C. = 1.5/1.0 Cu. Ft. Water/Sack
Bentonite = 5.0%/Sack of Cement
Volume Mixed = 12.0 Cu. Ft.
Volume Used = 12.0 Cu. Ft.
Cement 6 Sacks, Bentonite 1/2 Sack
Grouting 2 Hours

Clearing

None

LOG OF BORING
FOR

Sheet 1 of 3

COLETO CREEK POWER STATION

DATE: May 16, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. SY-2
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Ground Surface Elevation=125.2 Ft.				
		X	33	-J-1	Tan Sandy Clay w/Red-Brown Streaks, Clayey Sand Lenses, and Black Specks (CL)			121.2	
5			---	-S-1	Light Tan Sandy Clay w/Red Streaks, Clayey Sand Lenses, and Black Specks (CL)			116.2	
10		X	28	-J-2	Light Tan Clayey Sand w/Sand Lenses and Black Specks (SC)			111.2	
15		X	27	-J-3	Light Tan Clayey Sand w/Yellow Streaks, Sand Lenses, and Black Specks (SC)			106.2	
20					Light Tan Sand, Coarse-Grained, w/Gravel and Black Specks (SP)				
25		X	100	-J-4, 21/6.00", 40/6.00", 39/5.00"				96.2	
30		X	80	-J-5	Light Tan Sand w/Black Specks (SP)				

CONTINUED

Klapp-Hamilton & Assoc. Inc.

LOG OF BORING FOR COLETO CREEK POWER STATION

DATE: May 16, 1975 BORING NO. SY-2

PROJECT LOCATION: Fannin, Texas TYPE: Core LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Light Tan Sand w/Black Specks (SP)			92.2	
35		X	100		Light Tan Clay w/Black Specks and Caliche Nodules (CL)				
				J-6	43/6.00", 57/6.00"			88.2	
40		X	100	J-7	28/6.00", 72/5.00" Light Tan Sandy Clay w/Yellow Streaks, Black Specks, and Calcium Pockets (CL)			81.2	
45		X	62	J-8	Light Tan Clayey Sand w/Yellow Streaks, Black Specks, and Caliche Nodules (SC)			76.2	
50		X	100	J-9	27/6.00", 73/4.00" Light Gray Clay w/Tan Streaks, Black Specks, and Caliche Nodules (CH)			73.2	
					Yellow and Light Tan Sandstone			72.2	
55		X	100	J-10	100/5.00" Light Tan Sand w/Gravel and Sandstone Lenses (SP)			66.2	
60		X	100	J-11	100/4.00" Light Gray and Light Tan Sand w/ Yellow Streaks and Caliche Particles (SP)				

CONTINUED

Lapp-Hamilton & Assoc. Inc.

LOG OF BORING FOR

COLETO CREEK POWER STATION

DATE: May 16, 1975
PROJECT LOCATION: Fannin, Texas
TYPE: Core
BORING NO. SY-2
LOCATION: See Plan

DEPTH FEET	SYMBOL	SAMPLE	N-BLOWS PER FOOT	Sample No.	MATERIAL DESCRIPTION	CORE DRILLED	CORE RECOVERED	ELEVATION	DEPTH SCALE
					Light Gray and Tan Sand w/Yellow Streaks and Caliche Particles (SP)			61.2	
65			100	-J-12, 100/6.00"	Light Tan Clayey Sand w/Black Specks and Calcium Pockets (SC)			57.2	
70			---	-S-2	Light Tan Clay w/Sand Lenses, Tan Streaks, and Black Specks (CH)			51.2	
75			50	-J-13	Light Tan Sandy Clay w/Light Gray and Tan Streaks, Caliche Particles, and Black Specks (CL)			49.7	
80									

Total Depth of Boring = 75.5 Feet

Notes:

Project No. 4857
Boring Started: 5-16-75 10:00 a.m.
Boring Completed: 5-16-75 4:00 p.m.

Driller: Joe Castleberry

Water Observations

Date	Time	Depth

Drilling fluid was used from the ground surface down and it did not disperse.

Grout Record

Date: 5-19-75 8:00 a.m. to 11:00 a.m.

W. C. = 1.5/1.0 Cu. Ft. Water/Sack
Bentonite = 5.0%/Sack of Cement
Volume Mixed = 14.0 Cu. Ft.
Volume Used = 14.0 Cu. Ft.
Cement 7 Sacks, Bentonite 1/2 Sack
Grouting = 3 Hours

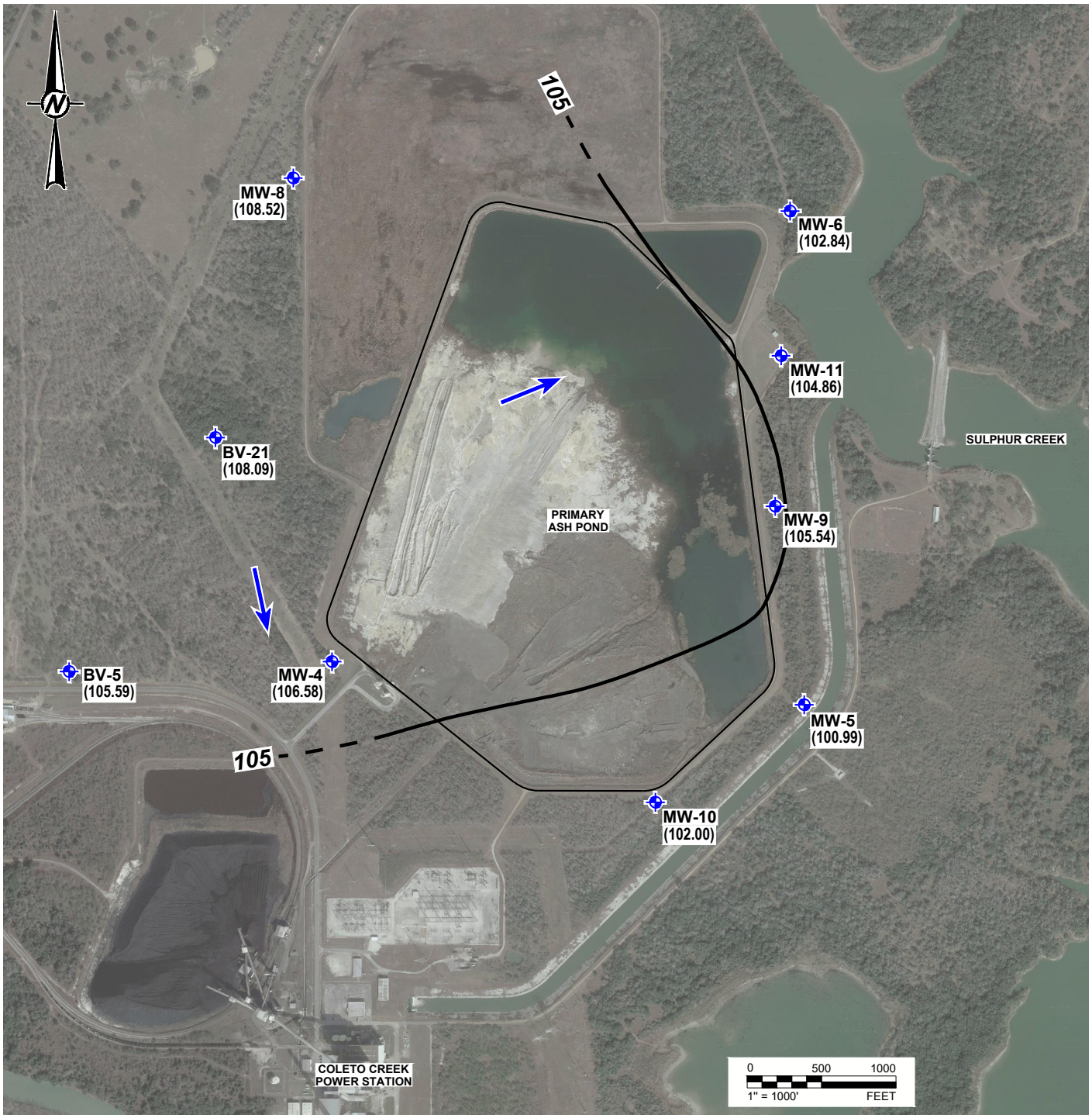
Clearing

1-1/5 Hours

B-135

APPENDIX B

2022 Groundwater Potentiometric Surface Maps



LEGEND

- CCR MONITORING WELL
- *(113.02)* GROUNDWATER POTENTIOMETRIC SURFACE (FT MSL)
- GROUNDWATER POTENTIOMETRIC SURFACE CONTOUR (C.I. = 5 FT)
- INFERRED DIRECTION OF GROUNDWATER FLOW

STATE OF TEXAS
WILLIAM F VIENNE
GEOLOGY
No. 10492
LICENSED
PROFESSIONAL GEOSCIENTIST
1/31/23

REFERENCE(S)

BASE MAP TAKEN FROM GOOGLE EARTH, IMAGERY DATED JANUARY 15, 2021.

CLIENT
LUMINANT

PROJECT
COLETO CREEK POWER STATION
FANNIN, TEXAS

TITLE
PRIMARY ASH POND
POTENTIOMETRIC SURFACE MAP
MAY 25, 2022

CONSULTANT

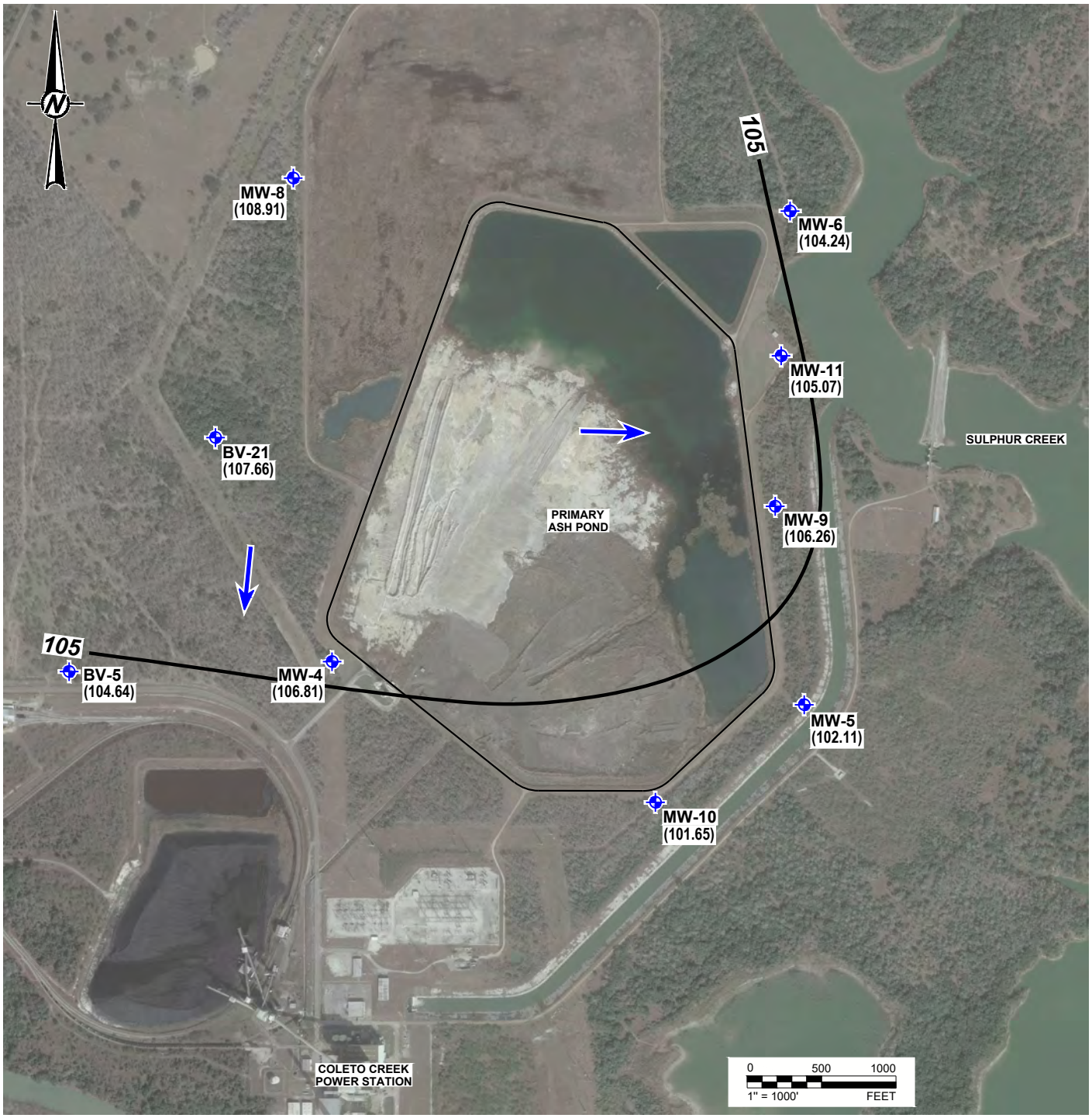
wsp

YYYY-MM-DD	2022-12-20
DESIGNED	TNB
PREPARED	TNB
REVIEWED	JJ
APPROVED	WFV

PROJECT NO. 31404097.009
REV. 0
FIGURE 1

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A

Last Edited By: tbookout Date: 2022-12-20 Time:12:38:39 PM | Printed By: TBookout Date: 2022-12-20 Time:12:40:02 PM
Path: \\golder.gds\complexdata\office\Texarkana\Projects - Round Rock_2022\31404097 - Luminant CCR\Coleto Creek\PRODUCTION\2022-12\ | File Name:FIG 2 - Pot Surface Map-Primary Ash Pond (May 2022).dwg



LEGEND

- CCR MONITORING WELL
- *(113.02)* GROUNDWATER POTENTIOMETRIC SURFACE (FT MSL)
- GROUNDWATER POTENTIOMETRIC SURFACE CONTOUR (C.I. = 5 FT)
- INFERRED DIRECTION OF GROUNDWATER FLOW

STATE OF TEXAS
WILLIAM F VIENNE
GEOLOGY
No. 10492
LICENSED
PROFESSIONAL GEOSCIENTIST
1/31/23

REFERENCE(S)

BASE MAP TAKEN FROM GOOGLE EARTH, IMAGERY DATED JANUARY 15, 2021.

CLIENT
LUMINANT

PROJECT
COLETO CREEK POWER STATION
FANNIN, TEXAS

TITLE
PRIMARY ASH POND
POTENTIOMETRIC SURFACE MAP
SEPTEMBER 20, 2022

CONSULTANT

wsp

YYYY-MM-DD	2023-01-10
DESIGNED	AJD
PREPARED	AJD
REVIEWED	WFV
APPROVED	WFV

PROJECT NO. 31404097.009 | REV. 0 | FIGURE 2

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A

Last Edited By: usad701305 Date: 2023-01-10 Time:3:49:58 PM | Printed By: USAD701305 Date: 2023-01-10 Time:4:13:49 PM
Path: \\golder.gds\complexdata\office\Texarkana\Projects - Round Rock_2022\31404097 - Luminant CCR\Coleto Creek\PRODUCTION\2022-12\ | File Name:2 - Pot Surface Map-Primary Ash Pond (September 2022).dwg

Attachment 2

Background Groundwater Monitoring and Statistical Analysis Summary Report

Bullock, Bennett & Associates, LLC

www.bbaengineering.com
165 N. Lampasas St. • Bertram, Texas 78605 • (512) 355-9198

COAL COMBUSTION RESIDUAL RULE BACKGROUND GROUNDWATER MONITORING AND STATISTICAL ANALYSIS SUMMARY REPORT

PRIMARY ASH POND
COLETO CREEK POWER STATION
FANNIN, TEXAS

October 6, 2023

Prepared For:

Coleto Creek Power, LLC

Prepared By:

Bullock, Bennett & Associates, LLC
165 N. Lampasas Street
Bertram, Texas 78605

Texas Engineering Firm Registration No. F-8542
Texas Geoscience Firm Registration No. 50127

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

1.0 INTRODUCTION

Coleto Creek Power, LLC operates the Coleto Creek Power Station (Coleto Creek), a coal-fired power plant located in Fannin, Goliad County, Texas (the Site) (Figure 1). CCRs including fly ash and bottom ash are generated as part of power plant operations. Bottom ash and fly ash have historically been managed/disposed in the Primary Ash Pond (PAP) onsite. Bottom ash is sluiced directly to the PAP from the unit boiler. Fly ash is pneumatically conveyed from the boiler to storage silos where it is loaded into hopper trucks and transported off-site for beneficial re-use.

The CCR Rule (Title 40 Code of Federal Regulations (CFR) Section 257 Subpart D - *Standards for the Receipt of Coal Combustion Residuals in Landfills and Surface Impoundments*) has been promulgated by the United States Environmental Protection Agency (USEPA) to regulate the management and disposal of CCRs as solid waste under Resource Conservation and Recovery Act (RCRA) Subtitle D. The final CCR Rule was published in the Federal Register on April 17, 2015. The effective date of the CCR Rule is October 19, 2015. TCEQ adopted portions of the Federal CCR Rule at Title 30 Texas Administrative Code (TAC) Chapter 352 (Texas CCR Rule). The USEPA published its final approval of the Texas CCR rule on June 28, 2021 and the Texas CCR Rule became effective on July 28, 2021. It adopts and incorporates by reference the Federal CCR Program requirements for groundwater monitoring at 30 TAC Sections 352.901 through 352.951.

The CCR Rule establishes national minimum criteria for existing and new CCR landfills, existing and new CCR surface impoundments, and lateral expansions to landfills/impoundments. Section 257.93(d) of the CCR Rule requires that the owner or operator of the CCR unit must establish background groundwater quality in a hydraulically upgradient or background well(s) for each of the constituents required in the particular groundwater monitoring program that applies to the CCR unit as determined under Section 257.94(a) (*Detection Monitoring Program)* and Section 257.95(a) (*Assessment Monitoring Program)*. Section 257.94(b) of the CCR Rule requires that a minimum of eight independent groundwater samples from each background and downgradient well associated with a CCR unit be collected and analyzed for the constituents listed in Appendix III and IV to Part 257 no later than October 17, 2017. This report presents a summary of the sampling and analytical activities performed to establish background groundwater quality at the Site.

1.1 CCR Unit Description

The Primary Ash Pond is an aboveground surface impoundment having an approximate surface area of 190 acres and storage capacity of approximately 2,700 acre-feet (S&L, December 1978). Approximately 12,855 linear feet of above-grade earthen dikes surround the impoundment. Bottom ash and fly ash have historically been managed/disposed in the Primary Ash Pond (PAP) onsite. Bottom ash is sluiced directly to the PAP form the unit boiler. Fly ash is pneumatically conveyed from the boiler to storage silos where it is loaded into hopper trucks and transported off-site for beneficial re-use.

1.2 Local Geology and Hydrogeology

The Site is located in the outcrop area of the Pleistocene-aged Lissie Formation within the western region of the Gulf Coast Basin (Barnes, 1998). The Lissie Formation sediments dip to southeast at 5 to 20 feet per mile and consist of sand, silt, clay, and minor amounts of gravel (Doering, 1935). Extensive soil data collected at the Site indicate that the stratigraphy below the PAP is divided into three distinct lithologic units, which are described below in order of increasing depth:

- **Unit 1** – The PAP is built on top of the ground surface of Unit 1 and is enclosed by above-grade dikes that were constructed using Unit 1 material. Sargent and Lundy prepared a PAP design and construction summary report that evaluated soil borings completed in the footprint of the PAP and surrounding areas (S&L, 1978). Based on soil sample descriptions for the soil borings completed at the Site, Unit 1 generally consists of dry to moist, low permeability sandy clay and silty clay with intermittent clayey sand and caliche.

- **Unit 2** – Unit 2 comprises the uppermost aquifer at the Site. Unit 2 consists primarily of permeable sand and silty sand, with intermittent layers of less permeable clay-bearing soils with varying thickness.

- **Unit 3** – Unit 3 is a basal clay confining stratum that primarily consists of low permeability clay and silty clay with some sandy clay zones.

1.3 Primary Ash Pond Groundwater Monitoring System

Unit 2 is considered the uppermost aquifer at the Site based on its stratigraphic location, groundwater availability, and characteristically higher hydraulic conductivity/permeability and effective porosity when compared to Unit 1 and Unit 3. The CCR groundwater monitoring well

network for the Primary Ash Pond consists of nine monitoring wells each screened within Unit 2. The locations of the CCR monitoring wells are shown on Figure 1. Groundwater generally flows to the south and east in the vicinity of the Primary Ash Pond. This is demonstrated on the groundwater potentiometric surface maps presented in Appendix A, which were constructed using groundwater elevation data collected during the baseline monitoring period. The location of each CCR monitoring well relative to the Primary Ash Pond is as follows:

Upgradient/Background Wells	Downgradient Wells
BV-5 BV-8 BV-21	MW-4 MW-5 MW-6 MW-9 MW-10 MW-11

2.0 BACKGROUND GROUNDWATER MONITORING PROGRAM

This section describes groundwater sampling and analysis procedures used for the background monitoring events.

2.1 Groundwater Sampling Procedures

Groundwater sampling to establish background was performed by Coleto Creek environmental compliance staff in accordance with the Groundwater Sampling and Analysis Plan (BBA, 2017). Water levels were measured in each well to the nearest 0.01-foot prior to purging or sampling the wells. The wells were purged using low-flow methods until field water quality parameters stabilized, after which a groundwater sample was collected in a laboratory-supplied container. After the samples were collected, the sample containers were placed in a cooler or similar container, preserved with ice, and delivered to the laboratory for analysis.

2.2 Analytes and Analytical Procedures

Groundwater samples collected during the background period were analyzed for the constituents listed in Appendix III and IV to Part 257, including:

Appendix III Constituents	Appendix IV Constituents
Boron	Arsenic
Calcium	Barium
Chloride	Beryllium
Fluoride	Cadmium
pH	Chromium
Sulfate	Cobalt
Total Dissolved Solids (TDS)	Fluoride
	Lead
	Lithium
	Mercury
	Molybdenum
	Selenium
	Thallium
	Radium 226 and 228 (combined)

The laboratory methods used to analyze the background samples were as follows:

Appendix III Constituents

- Boron and calcium by USEPA Method SW6020;
- Chloride, fluoride, and sulfate by USEPA Method E300;
- pH by Standard Method M4500-H + B (field measurement); and
- TDS by Standard Method M2540.

Appendix IV Constituents

- Antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, lead, lithium, molybdenum, selenium, and thallium by USEPA Method SW6020;
- Fluoride USEPA Method E300;
- Mercury by USEPA Method SW7470; and
- Radium 226 and 228 by USEPA Methods 904.0/SW9320 Modified and 903.1 Modified.

All metals analyses were reported as "total recoverable metals" in accordance with Section 257.93(1) of the CCR Rule. Samples were not filtered prior to analysis.

2.3 Background Groundwater Monitoring Sampling Results

Eight background groundwater monitoring events were performed using the Primary Ash Pond CCR monitoring well system from March 2017 through July 2017. The laboratory analytical reports for the background samples are presented in Appendix B and the background sample data are summarized in Appendix C, Table C-1 (Appendix III constituents) and Table C-2 (Appendix IV constituents).

2.4 Establishing Background Assessment Levels

The following statistical evaluation approach was selected to develop background groundwater quality assessment levels for the Site:

- Use of interwell data evaluations, which compare new sample data to data from upgradient or background monitoring wells.

- Use of upper prediction limits (UPLs) to develop site-specific background concentrations for all Appendix III and Appendix IV constituents. This approach is a common statistical method used to evaluate groundwater compliance for Subtitle D landfill facilities and is one of the approved options for groundwater quality data statistical evaluations under the CCR Rule.

Documentation on the statistical procedures used to establish background UPLs is presented in Appendix C.

3.0 DETECTION AND ASSESSMENT MONITORING DATA EVALUATION PROCEDURES

Statistical analysis of groundwater monitoring data is required as part of detection monitoring and assessment monitoring under Section 257.93 of the CCR Rule. Section 257.93 of the CCR Rule provides several options for statistically evaluating the groundwater data. The owner or operator of the CCR unit must select one of the following statistical methods specified in paragraphs (f)(1) through (5) of Section 257.93 to use in evaluating groundwater monitoring data for each specified constituent:

(1) A parametric analysis of variance followed by multiple comparison procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's mean and the background mean levels for each constituent.

(2) An analysis of variance based on ranks followed by multiple comparison procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's median and the background median levels for each constituent.

(3) A tolerance or prediction interval procedure, in which an interval for each constituent is established from the distribution of the background data and the level of each constituent in each compliance well is compared to the upper tolerance or prediction limit.

(4) A control chart approach that gives control limits for each constituent.

(5) Another statistical test method that meets the performance standards of paragraph (g) of this section.

The following statistical evaluation approaches were selected to demonstrate groundwater compliance for the Primary Ash Pond under the CCR Rule:

- Use of interwell data evaluations, which compare new sample data to data from upgradient or background monitoring wells.
- Use of UPLs to develop site-specific background concentrations for all Appendix III and Appendix IV constituents. This approach is a common statistical method used to evaluate groundwater compliance for Subtitle D landfill facilities and is one of the approved options for groundwater quality data statistical evaluations under the CCR Rule.
- After every detection monitoring event, Appendix III constituent concentrations from each well are compared to background UPLs to ascertain if a statistically significant increase above background exists. Background UPLs are based on a 1-of-2 resampling approach, meaning that if one or more constituent concentrations in a compliance well

are above their respective background concentration, a resample can be collected to validate or invalidate the background concentration exceedance.

- If in assessment monitoring, the 95% lower confidence limit of the mean (LCL) is calculated after each assessment monitoring event for each Appendix IV constituent. The data set used to calculate LCLs is based on current and historical constituent concentrations. A statistically significant level over the Groundwater Protection Standard (GWPS) has occurred at a CCR unit when the LCL for at least one assessment monitoring constituent at a well is greater than the appropriate GWPS. Development of the GWPSs is discussed in Section 3.2 and statistical methods used to develop LCLs are discussed in Appendix C.

The selected statistical evaluation procedures conform with the CCR Rule requirements, as well as the Statistical Analysis Plan for the Site (WSP Golder, 2022), USEPA's *Unified Guidance: Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities* (USEPA, 2009), and the American Society for Testing and Materials (ASTM) standard D6312-17, *Developing Appropriate Statistical Approaches for Groundwater Detection Monitoring Programs at waste Disposal Facilities* (ASTM, 2017).

3.1 Detection Monitoring Data Evaluation

After every detection monitoring event, the constituent concentrations from each downgradient well are compared to the background UPLs to ascertain if a statistically significant increase above background exists. The Appendix III detection monitoring prediction limits are summarized in Table 1. Documentation on the statistical procedures used to establish background groundwater quality prediction limits is presented in Appendix C. Background UPLs are based on a 1-of-2 resampling approach, meaning that if zero or one concentration measurements from a series of two independent samples collected from a well do not exceed the appropriate UPL, then a statistically significant increase over background has not occurred at the CCR unit. This conclusion will be reached if the data indicate either of the following:

- All detection monitoring constituent concentrations in a compliance well are less than or equal to their respective background UPL; or

- At least one detection monitoring constituent concentration in a well is above the respective background UPL. If this occurs, the well or wells with constituent concentration(s) above the background UPL(s) may be resampled and analyzed for the detection monitoring constituent(s) with exceedances. If the resample indicates that the target detection monitoring constituent concentration(s) in the well or wells is less than or equal to their respective background UPL(s), then it can be concluded that a statistically significant increase over background for all detection monitoring constituents has not occurred since concentrations in one sample of the two independent samples do not

exceed the appropriate background UPL(s).

If the groundwater monitoring data indicate that a statistically significant increase over background has not occurred at the CCR wells, then detection monitoring at all CCR wells will continue on a semi-annual basis.

If one or more detection monitoring constituent concentrations in any well is above the respective background UPL in both the original detection monitoring sample and the resample, then a statistically significant increase over background for the target detection monitoring constituents can be concluded. In accordance with Section 257.94(e), if a statistically significant increase is indicated, within 90 days the owner/operator shall:

- Establish an assessment monitoring program, or
- Demonstrate that a source other than the CCR unit caused the statistically significant increase over the background UPL for a constituent, or that the statistically significant increase resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Per 30 TAC Section 352.941, in making an alternative source demonstration, the owner or operator must:
    - Notify the TCEQ executive director, and any local pollution agency with jurisdiction that has requested to be notified, in writing within 14 days that the owner or operator intends to make an alternative source demonstration; and
    - Within 90 days of making a determination of a statistically significant increase over the background value for any Appendix III constituent, submit a report prepared and certified in accordance with 30 TAC Section 352.4 (relating to Engineering and Geoscientific Information) to the TCEQ executive director and any local pollution agency with jurisdiction that has requested to be notified, demonstrating that a source other than a CCR unit caused the statistically significant increase or that the statistically significant increase resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality.

3.2 Assessment Monitoring Data Evaluation

Assessment monitoring will be performed at a CCR unit's groundwater monitoring system after a statistically significant increase over background has been confirmed for one or more of the detection monitoring constituents and the statistically significant increase cannot be attributed to a source other than the CCR unit. Within 90 days of obtaining the results from the initial assessment monitoring sampling event, GWPSs will be established for all Appendix IV assessment monitoring constituents as follows:

- For constituents for which an MCL has been established, the GWPS is the highest of the MCL, UPL, or reporting limit for each constituent; or
- For constituents for which an MCL has not been established, the GWPS is the higher of the UPL, reporting limit, or the EPA regional screening level (RSL) for each constituent.

The GWPS for each Appendix IV constituent is presented in Table 2.

The 95% LCL for each Appendix IV constituent concentration at each well is compared to the GWPS established for each constituent to ascertain if a statistically significant level above the GWPS does or does not exist. A statistically significant level is indicated if the LCL exceeds the GWPS. Additional information on the development of Appendix IV constituent LCLs is provided in Appendix C.

In accordance with Section 257.95(g)(3), if a statistically significant level over GWPSs for any Appendix IV assessment monitoring constituent is confirmed, within 90 days of the initial assessment monitoring event, the owner/operator will either:

- Initiate an assessment of corrective measures for the CCR unit in accordance with Section 257.96; or
- Demonstrate that a source other than the CCR unit caused the statistically significant level over the background UPL for a constituent, or that the statistically significant level resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Per 30 TAC Section 352.951, in making an alternative source demonstration, the owner or operator must:
    - Notify the TCEQ executive director, and any local pollution agency with jurisdiction that has requested to be notified, in writing within 14 days that the owner or operator intends to make an alternative source demonstration; and
    - Within 90 days of making a determination of a statistically significant level over the GWPS of any Appendix IV constituent, submit a report prepared and certified

in accordance with 30 TAC Section 352.4 (relating to Engineering and Geoscientific Information) to the TCEQ executive director, and any local pollution agency with jurisdiction that has requested to be notified, demonstrating that a source other than a CCR unit caused the exceedance or that the exceedance resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality.

If one or more Appendix IV assessment monitoring constituents are detected at statistically significant levels above their respective GWPS in any sampling event, and if a source other than the CCR unit cannot be demonstrated to have caused the exceedance, the nature and extent of the potential release should be further characterized as follows in accordance with Section 257.95(g)(1):

- Install additional monitoring wells necessary to define the contaminant plume(s);
- Collect data on the nature and estimated quantity of material released including specific information on the Appendix IV assessment monitoring constituents and the levels at which they are present in the material released;
- Install at least one additional monitoring well at the facility boundary in the direction of contaminant migration and sample this well for all Appendix III detection monitoring parameters and for those Appendix IV assessment monitoring constituents that have been detected as part of assessment monitoring. This monitoring must be performed on at least a semi-annual basis thereafter; and
- Sample all wells in accordance with Section 257.95(d)(1) to characterize the nature and extent of the release.

4.0 REFERENCES

ASTM, 2017. Standard Guide for Developing Appropriate Statistical Approaches for Groundwater Detection Monitoring Programs at Waste Disposal Facilities - D6312-17.

Bullock, Bennett & Associates, LLC (BBA), 2017. Groundwater Sampling and Analysis Plan, Coleto Creek Primary Ash Pond, Coleto Creek Power Station, Fannin, Texas.

Doering, J., 1935. Post-Fleming Surface Formations of Coastal Southeast Texas and South Louisiana. AAPG Bulletin, Vol. 19, No. 5, p. 651-688.

Golder, 2022. Coal Combustion Residual Rule, Statistical Analysis Plan, Revision No. 1, Coleto Creek Primary Ash Pond, Fannin, Texas.

Sargent & Lundy Engineers, 1978. Design and Construction Summary for Coal Pile and Wastewater Pond Facilities, Coleto Creek Power Station Unit 1, Report SL-3689.

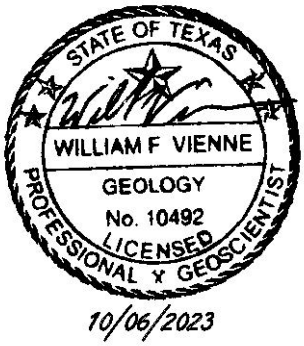
USEPA, 2009. Unified Guidance Document: Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, EPA 530/R-09-007, March.

SIGNATURE PAGE

Bullock, Bennett & Associates, LLC

Teresa Shaw
Senior Statistician

William Vienne, P.G.
Senior Hydrogeologist



10/06/2023

Tables

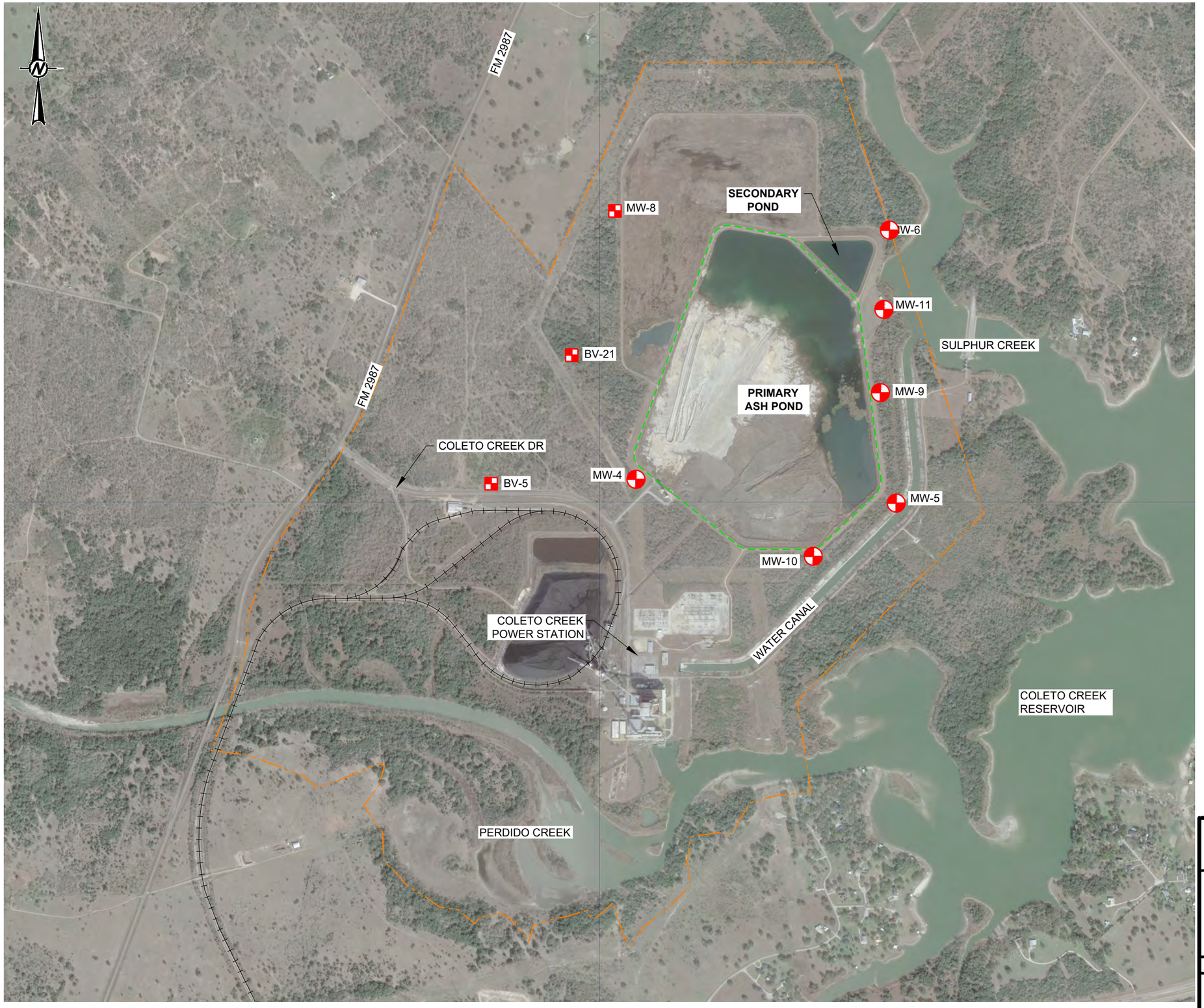
Table 1
Appendix III Groundwater Background Upper Prediction Limits
Coleto Creek Primary Ash Pond

Parameter	Statistical Background Value
Boron (mg/L)	1.3
Calcium (mg/L)	140
Chloride (mg/L)	120
Fluoride (mg/L)	0.61
field pH (s.u.)	6.5 7.3
Sulfate (mg/L)	150
Total Dissolved Solids (mg/L)	970

Table 2
Appendix IV Groundwater Protection Standards
Coleto Creek Primary Ash Pond

Parameter	Groundwater Protection Standard
Antimony (mg/L)	0.0060
Arsenic (mg/L)	0.13
Barium (mg/L)	2.0
Beryllium (mg/L)	0.0040
Cadmium (mg/L)	0.0050
Chromium (mg/L)	0.10
Cobalt (mg/L)	0.050
Fluoride (mg/L)	4.0
Lead (mg/L)	0.015
Lithium (mg/L)	0.040
Mercury (mg/L)	0.0020
Molybdenum (mg/L)	0.10
Selenium (mg/L)	0.050
Thallium (mg/L)	0.0020
Radium 226+228 (pCi/L)	5.0

Figures



LEGEND

- PROPERTY BOUNDARY
- CCR MONITORING UNIT
- DOWNGRADIENT CCR MONITORING WELL
- UPGRADIENT CCR MONITORING WELL
- RAILROAD

REFERENCE(S)

BASE MAP TAKEN FROM GOOGLE EARTH, IMAGERY DATED 1/15/21.

0 600 1200
1" = 1200' FEET

Coleto Creek Power

Figure 1

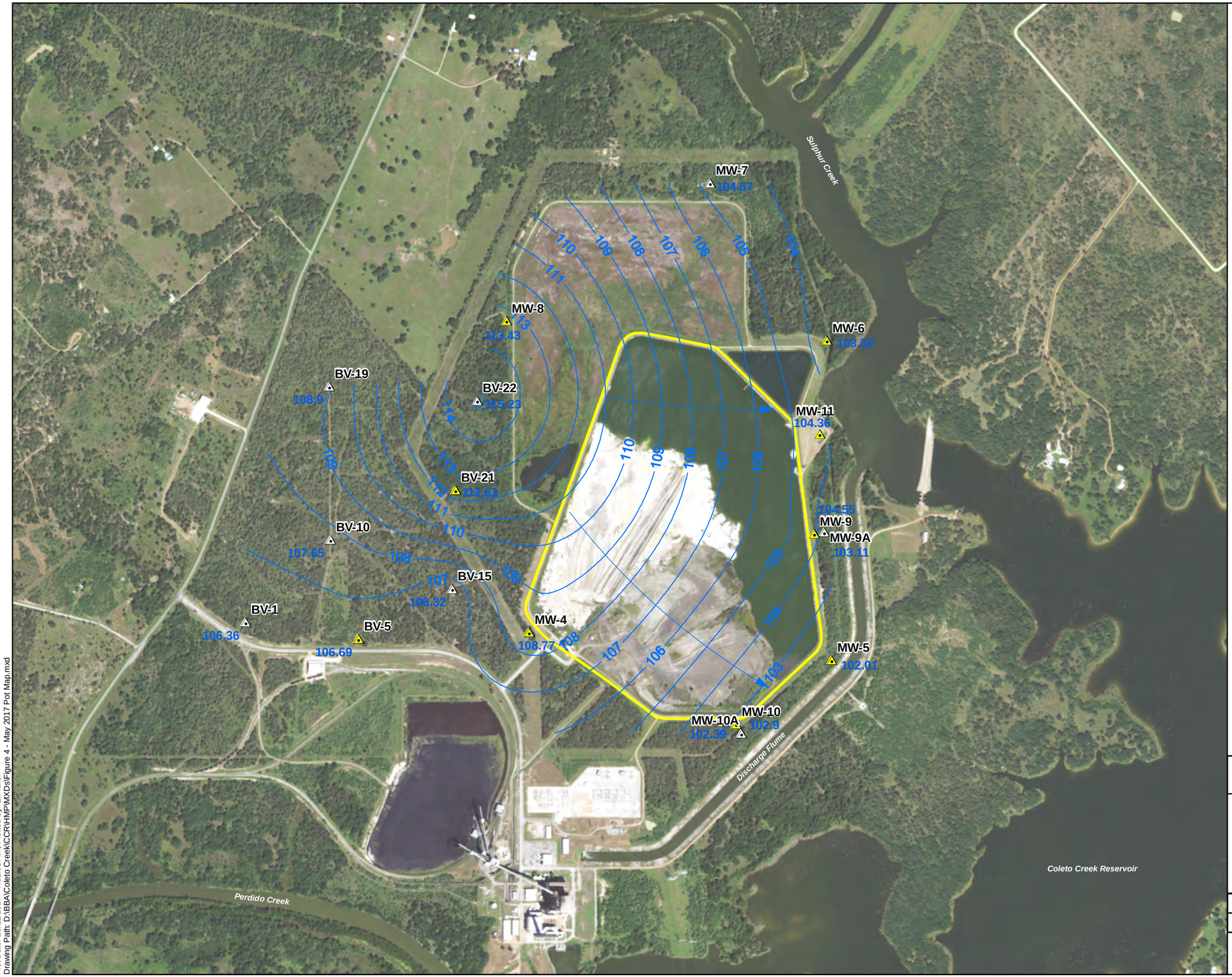
SITE PLAN

PROJECT: 23643-01	BY: RCAD-RR	DATE: AUG. 2023	CHECKED: WFV

Bullock, Bennett & Associates, LLC
Engineering and Geoscience
Texas Registrations: Engineering F-8542, Geoscience 50127

Appendix A

Groundwater Potentiometric Surface Maps (BBA, 2017)



Explanation

- CCR Rule Monitoring Well
- Non-CCR Rule Monitoring Well
- 105 — May 2017 Potentiometric Surface Elevation Contour (ft. MSL)
- CCR Monitored Unit
- Groundwater Flow Direction

Ref: Orthoimagery from ArGIS World Imagery Server

N

0 1:12,000 2,000 Feet

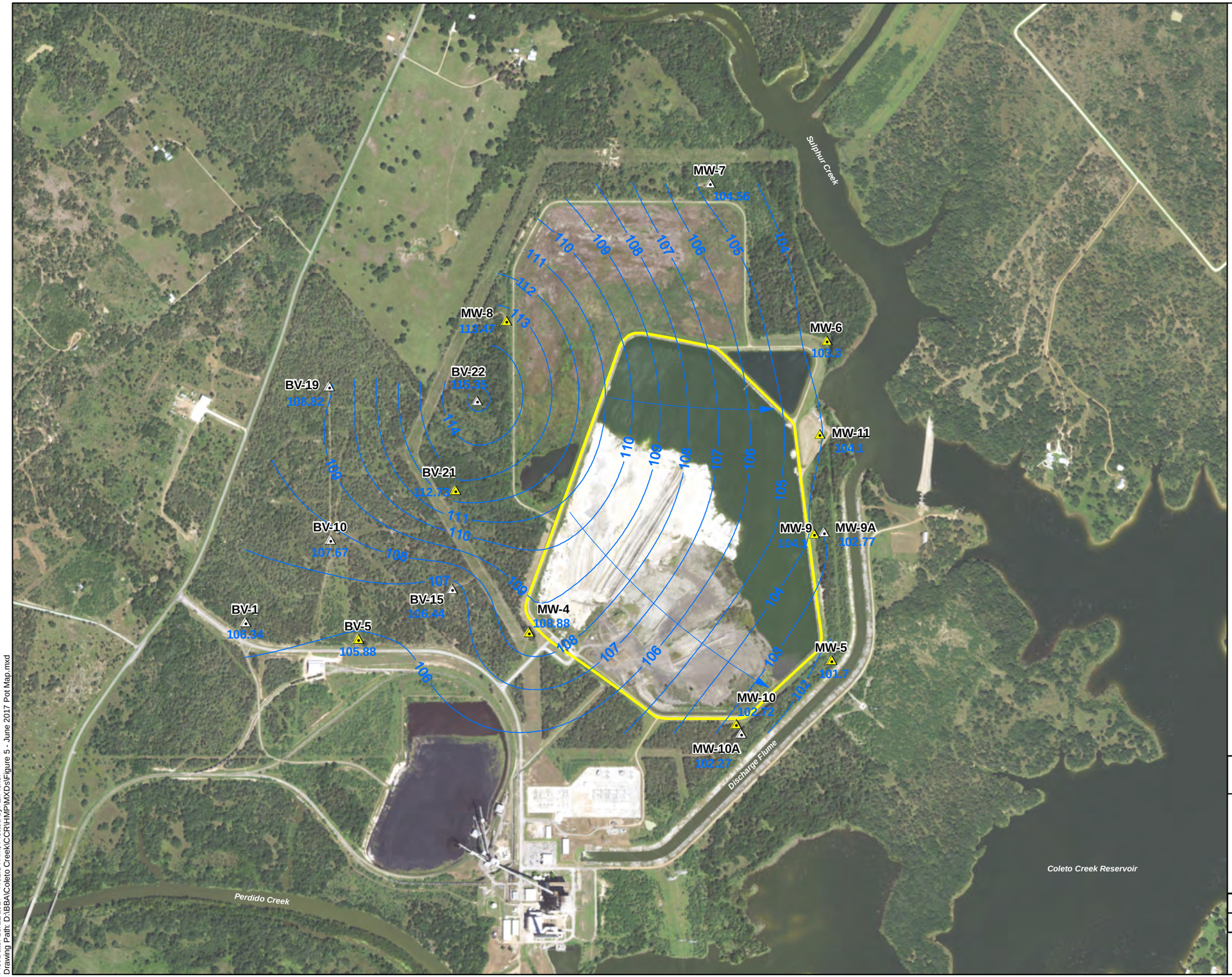
Coleto Creek Power, LP

Figure 4
May 9-11, 2017
Potentiometric Surface Map
Uppermost Aquifer Unit

PROJECT: 17258	BY: EEF	REVISIONS
DATE: Oct 2017	CHECKED: CEB	

Bullock, Bennett & Associates, LLC
Engineering and Geoscience
Texas Registrations: Engineering F-8542, Geoscience 50127

Plot Date: 10/12/2017 - 7:02:05 AM, Plotted by: E.Ficker
Drawing Path: D:\BBA\Coleto Creek\CCR\HMP\MXDs\Figure 4 - May 2017 Pot Map.mxd



Explanation

- CCR Rule Monitoring Well
- Non-CCR Rule Monitoring Well
- 105 — June 2017 Potentiometric Surface Elevation Contour (ft. MSL)
- CCR Monitored Unit
- Groundwater Flow Direction

Ref: Orthoimagery from ArGIS World Imagery Server

N

0 1:12,000 2,000 Feet

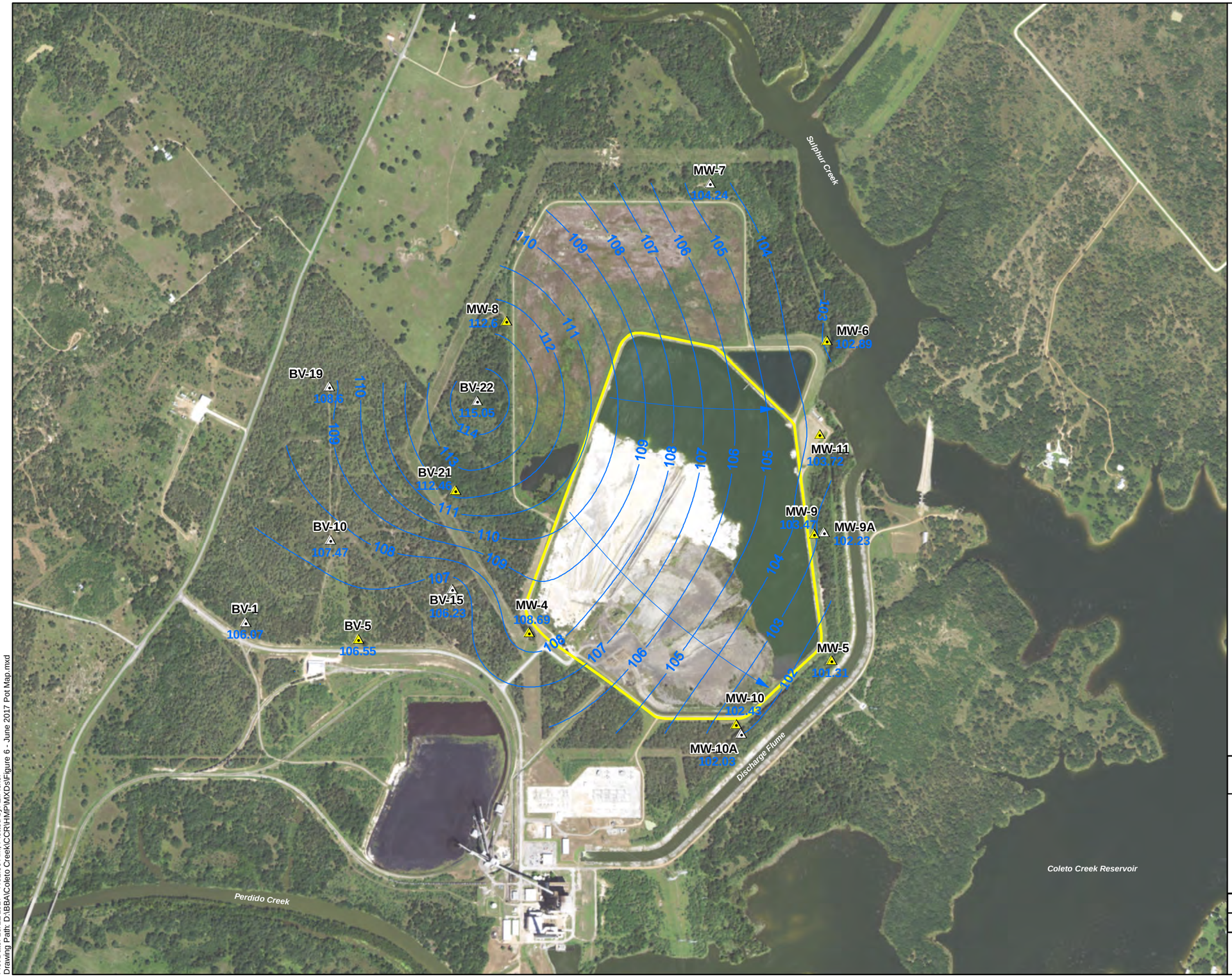
Coleto Creek Power, LP

Figure 5
June 6-8, 2017
Potentiometric Surface Map
Uppermost Aquifer Unit

PROJECT: 17258	BY: EEF	REVISIONS
DATE: Oct 2017	CHECKED: CEB	

Bullock, Bennett & Associates, LLC
Engineering and Geoscience
Texas Registrations: Engineering F-8542, Geoscience 50127

Plot Date: 10/12/2017 - 7:02:34 AM, Plotted by: E.Ficker
Drawing Path: D:\BBA\Coleto Creek\CCR\HMP\MXDs\Figure 5 - June 2017 Pot Map.mxd



Explanation

- CCR Rule Monitoring Well
- Non-CCR Rule Monitoring Well
- 105 — June 2017 Potentiometric Surface Elevation Contour (ft. MSL)
- CCR Monitored Unit
- Groundwater Flow Direction

Ref: Orthoimagery from ArGIS World Imagery Server

N

0 1:12,000 2,000 Feet

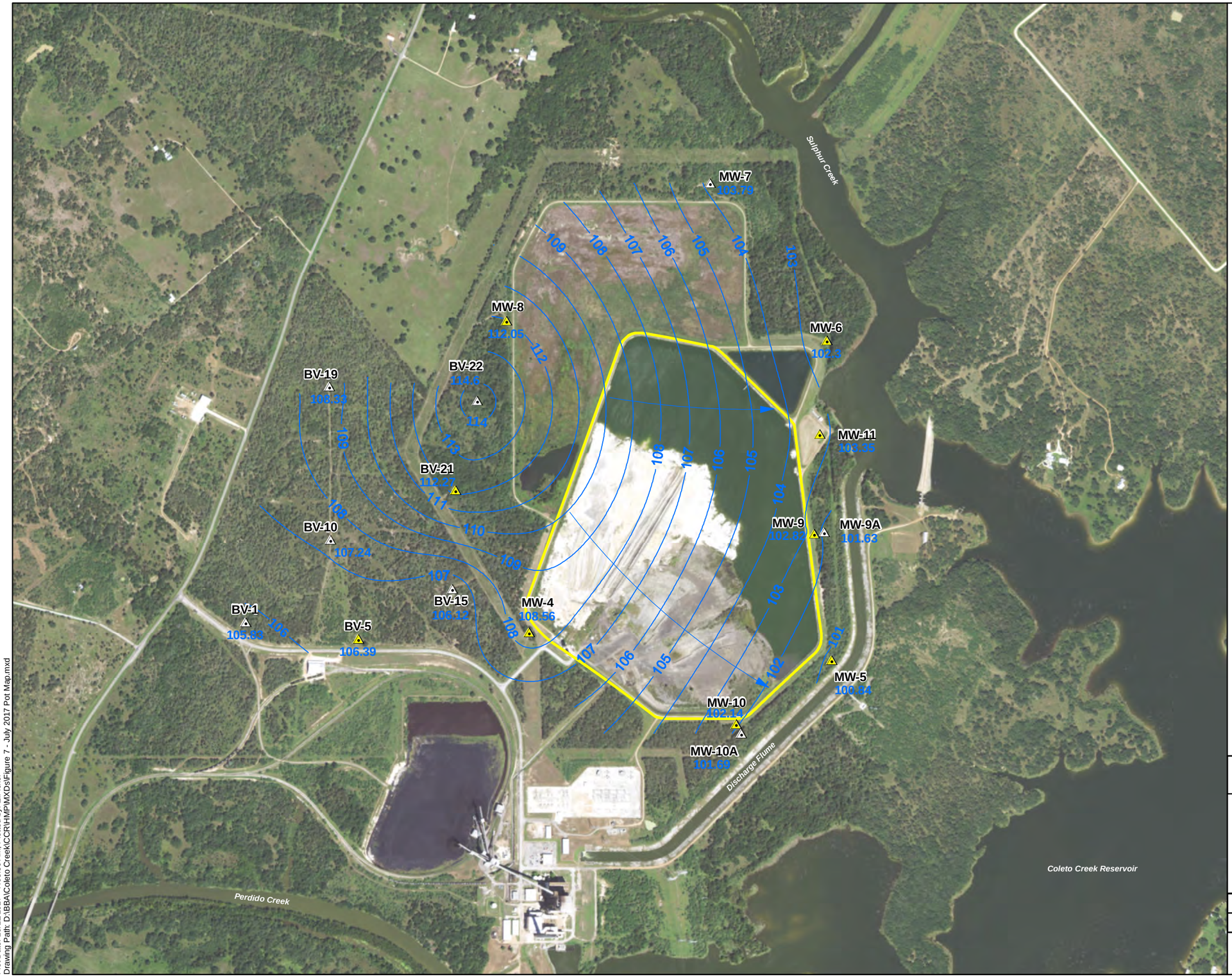
Coleto Creek Power, LP

Figure 6
June 26-28, 2017
Potentiometric Surface Map
Uppermost Aquifer Unit

PROJECT: 17258	BY: EEF	REVISIONS
DATE: Oct 2017	CHECKED: CEB	

Bullock, Bennett & Associates, LLC
Engineering and Geoscience
Texas Registrations: Engineering F-8542, Geoscience 50127

Plot Date: 10/12/2017 - 7:02:59 AM, Plotted by: E.Ficker
Drawing Path: D:\BBA\Coleto Creek\CCR\HMP\MXDs\Figure 6 - June 2017 Pot Map.mxd



Explanation

- CCR Rule Monitoring Well
- Non-CCR Rule Monitoring Well
- 105 — July 2017 Potentiometric Surface Elevation Contour (ft. MSL)
- CCR Monitored Unit
- Groundwater Flow Direction

Ref: Orthoimagery from ArGIS World Imagery Server

N

0 1:12,000 2,000 Feet

Coleto Creek Power, LP

Figure 7
July 18-20, 2017
Potentiometric Surface Map
Uppermost Aquifer Unit

PROJECT: 17258	BY: EEF	REVISIONS
DATE: Oct 2017	CHECKED: CEB	

Bullock, Bennett & Associates, LLC
Engineering and Geoscience
Texas Registrations: Engineering F-8542, Geoscience 50127

Plot Date: 10/12/2017 - 7:03:30 AM, Plotted by: E.Ficker
Drawing Path: D:\BBA\Coleto Creek\CCR\HMP\MXD\sFigure 7 - July 2017 Pot Map.mxd

Appendix B

Laboratory Analytical Reports

BatchNo: 53213

SAMPLE REPORT

T104704328-17-14

Business

Coleto Creek Power - R Coleman
PO Box 8
Fannin TX 77960
Att: Rick Coleman

Laboratory

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901
ph. 361-572-8224

Reference Information

Project: CCR Sampling

Printed: Wednesday, May 03, 2017

Re: Coleto Creek Power - R Coleman

Dear: Rick Coleman

Attached are the results for sample(s) received on 3/28/2017

The analytical results relate only to the samples tested.
All supporting quality data meets the requirements of NELAC unless noted in the case narrative section of the report.

This report contains 39 pages (including the cover page)

If you have any questions concerning this report, please do not hesitate to call (361) 572-8224 or Fax us at (361) 572-4115

Respectfully Submitted,

Kevin Baros

Laboratory Director

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 53213 **Page 2 of 39**

Batch No: 53213

Sample Receipt Checklist

Date Received: 3/28/2017

Project	CCR Sampling	Received By:	Vahrenkamp
Login completed by:	Vahrenkamp	3/28/2017	
	Signature	LoginDate:	

Carrier Name: Walk In

Shipping container/cooler in good condition?	☑ YES	☐ NO	☐ Not Present
Custody seals intact on shipping container/cooler?	☐ YES	☐ NO	☑ Not Present
Custody seals intact on sample bottles?	☐ YES	☐ NO	☑ Not Present
Chain of Custody present?	☑ YES	☐ NO	
Chain of Custody signed when relinquished and received	☑ YES	☐ NO	
Chain of Custody agrees with sample labels?	☑ YES	☐ NO	
Samples in proper container/bottles?	☑ YES	☐ NO	
Sample containers intact?	☑ YES	☐ NO	
Sufficient sample volume for indicated tests?	☑ YES	☐ NO	
All samples received within holding times?	☑ YES	☐ NO	
Container/Temp Blank - temperature in compliance?	☑ YES	☐ NO	>0 <6 °C On Ice
Water - VOA vials have zero headspace? Bubble < 6mm?	☐ YES	☐ NO	☑ No VOA Vials submitted
Water - pH acceptable upon receipt?	☑ YES	☐ NO	☐ Not Applicable

*TEMP	9.8/9.4	pH Adjusted?	No	Checked By	L. Vahrenkamp

Any No and/or N/A (not applicable) response must be detailed in the comments section below.

Client contacted		PersonContacted	
Contacted by:		Date Contacted:	

Regarding:

Comments:

Therm #3. HNO3 Lot # 2-42-12. pH Paper Lot # 2-25-6. The samples were received the same day they were collected and were in the process of cooling.

Corrective Action:

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 53213

Sample Report Information

Sample ID:	S170871632	Client ID:	Blank	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: Blank
Notes:

Batch No: 53213
Sampled: 3/28/2017 3:26 PM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	< 1	mg/L	EPA 300	K Baros	3/30/2017 2:24	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	< 20	mg/L	SM 2320 B		4/3/2017 13:03	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		3/30/2017 13:46	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	< 20	mg/L	SM 2320 B		3/30/2017 13:46	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	< 0.25	mg/L	EPA 300	K Baros	3/30/2017 2:24	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	5.47	SU	SM 4500-H+B	C Watts	3/28/2017 17:20					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	< 25	mg/L	SM2540C	C Watts	3/31/2017 17:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			4/3/2017 13:03					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	< 1	mg/L	EPA 300	K Baros	3/30/2017 2:24	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			4/20/2017 7:46					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 53213

Sample Report Information

Sample ID:	S170871635	Client ID:	MW 8	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #8
Notes:

Batch No: 53213
Sampled: 3/28/2017 3:06 PM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	79	mg/L	EPA 300	K Baros	3/29/2017 15:36	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	268	mg/L	SM 2320 B		3/30/2017 13:56	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 10	mg/L	SM 2320 B		3/30/2017 13:56	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	268	mg/L	SM 2320 B		3/30/2017 13:56	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.49	mg/L	EPA 300	K Baros	3/29/2017 15:36	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	6.94	SU	SM 4500-H+B	C Watts	3/28/2017 17:20					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	626	mg/L	SM2540C	C Watts	3/31/2017 17:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			4/3/2017 16:01					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	76	mg/L	EPA 300	K Baros	3/29/2017 15:36	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			4/20/2017 7:46					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 53213

Sample Report Information

Sample ID:	S170871637	Client ID:	Dup	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: Dup
Notes:

Batch No: 53213
Sampled: 3/28/2017 12:00 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	79	mg/L	EPA 300	K Baros	3/29/2017 20:03	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	267	mg/L	SM 2320 B		3/30/2017 14:05	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 10	mg/L	SM 2320 B		3/30/2017 14:05	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	267	mg/L	SM 2320 B		3/30/2017 14:05	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.48	mg/L	EPA 300	K Baros	3/29/2017 20:03	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	6.93	SU	SM 4500-H+B	C Watts	3/28/2017 17:20					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	628	mg/L	SM2540C	C Watts	3/31/2017 17:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			4/4/2017 12:20					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	76	mg/L	EPA 300	K Baros	3/29/2017 20:03	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			4/20/2017 7:46					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 53213

Sample Report Information

Sample ID:	S170871638	Client ID:	MW 4	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #4
Notes:

Batch No: 53213
Sampled: 3/28/2017 11:27 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	102	mg/L	EPA 300	K Baros	3/30/2017 1:07	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	248	mg/L	SM 2320 B		3/30/2017 14:15	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 10	mg/L	SM 2320 B		3/30/2017 14:15	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	248	mg/L	SM 2320 B		3/30/2017 14:15	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.61	mg/L	EPA 300	K Baros	3/30/2017 1:07	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	6.96	SU	SM 4500-H+B	C Watts	3/28/2017 17:20					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	794	mg/L	SM2540C	C Watts	3/31/2017 17:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			4/4/2017 12:22					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	157	mg/L	EPA 300	K Baros	3/30/2017 1:07	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			4/20/2017 7:47					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 53213

Sample Report Information

Sample ID:	S17087163A	Client ID:	BV 15	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV 15
Notes:

Batch No: 53213
Sampled: 3/28/2017 1:08 PM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	64	mg/L	EPA 300	K Baros	3/29/2017 18:08	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	179	mg/L	SM 2320 B		3/30/2017 14:21	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 10	mg/L	SM 2320 B		3/30/2017 14:21	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	179	mg/L	SM 2320 B		3/30/2017 14:21	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.82	mg/L	EPA 300	K Baros	3/29/2017 18:08	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.31	SU	SM 4500-H+B	C Watts	3/28/2017 17:20					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	550	mg/L	SM2540C	C Watts	3/31/2017 17:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			4/4/2017 12:25					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	96	mg/L	EPA 300	K Baros	3/29/2017 18:08	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			4/20/2017 7:47					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 53213

Sample Report Information

Sample ID:	S17087163B	Client ID:	BV 21	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV 21
Notes:

Batch No: 53213
Sampled: 3/28/2017 1:48 PM

Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	36	mg/L	EPA 300	K Baros	3/29/2017 21:57	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	227	mg/L	SM 2320 B		3/30/2017 14:29	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 10	mg/L	SM 2320 B		3/30/2017 14:29	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	227	mg/L	SM 2320 B		3/30/2017 14:29	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.61	mg/L	EPA 300	K Baros	3/29/2017 21:57	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.07	SU	SM 4500-H+B	C Watts	3/28/2017 17:20					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	490	mg/L	SM2540C	C Watts	3/31/2017 17:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			4/4/2017 12:27					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	69	mg/L	EPA 300	K Baros	3/29/2017 21:57	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			4/20/2017 7:47					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 53213

Sample Report Information

Sample ID:	S17087163C	Client ID:	BV 22	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV 22
Notes:

Batch No: 53213
Sampled: 3/28/2017 2:31 PM

Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	29	mg/L	EPA 300	K Baros	3/30/2017 4:18	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	240	mg/L	SM 2320 B		3/30/2017 14:38	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 10	mg/L	SM 2320 B		3/30/2017 14:38	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	240	mg/L	SM 2320 B		3/30/2017 14:38	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.52	mg/L	EPA 300	K Baros	3/30/2017 4:18	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.15	SU	SM 4500-H+B	C Watts	3/28/2017 17:20					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	452	mg/L	SM2540C	C Watts	3/31/2017 17:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			4/4/2017 12:29					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	48	mg/L	EPA 300	K Baros	3/30/2017 4:18	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			4/20/2017 7:47					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 53213

QA Summary Report

Parameter	ID	Result	Ref Value	Amt Added	LOQ	Qualifer	Control	Flag	Comments
.Method Blank									
.- Chloride, IC	Q170941245	<1mg/L	0		1		1		Blank Acceptable.
3/29/2017 14:20									
Fluoride, IC	Q170941245	<0.25mg/L	0		0.25		0.25		Blank Acceptable.
3/29/2017 14:20									
Solids, Total Dissolved	Q170931326	<25mg/L	0		10		25		Blank Acceptable.
3/31/2017 17:00									
Sulfate, IC	Q170941245	<1mg/L	0		1		1		Blank Acceptable.
3/29/2017 14:20									
Duplicate									
pH (Standard Units)	Q170880810	6.92SU	6.94		2	0.3%	20		Duplicate RPD Acceptable.
3/28/2017 17:20									
Solids, Total Dissolved	Q170931327	458mg/L	452		10	1.3%	20		Duplicate RPD Acceptable.
3/31/2017 17:00									
Laboratory Control Standard									
.- Chloride, IC	Q170941246	26.2mg/L	25		1	104.8%	80 - 120		Standard Recovery Acceptable.
3/29/2017 14:58						4.7%	20		Standard RPD Acceptable.
Fluoride, IC	Q170941246	2.1mg/L	2		0.25	105.0%	80 - 120		Standard Recovery Acceptable.
3/29/2017 14:58						4.9%	20		Standard RPD Acceptable.
pH (Standard Units)	Q170880809	7.01SU	7		2	100.1%	80 - 120		Standard Recovery Acceptable.
3/28/2017 17:20						0.1%	20		Standard RPD Acceptable.
Sulfate, IC	Q170941246	26.6mg/L	25		1	106.4%	80 - 120		Standard Recovery Acceptable.
3/29/2017 14:58						6.2%	20		Standard RPD Acceptable.
Matrix Spike									
.- Chloride, IC	Q17094124A	288mg/L	278	250	1	104.0%	80 - 120		Spike Recovery Acceptable.
3/30/2017 5:34						3.5%	20		Spike RPD Acceptable.
Fluoride, IC	Q17094124A	19.9mg/L	20.55	20	0.25	96.8%	80 - 120		Spike Recovery Acceptable.
3/30/2017 5:34						3.2%	20		Spike RPD Acceptable.
Sulfate, IC	Q17094124A	306mg/L	297.1	250	1	103.6%	70 - 130		Spike Recovery Acceptable.
3/30/2017 5:34						3.0%	20		Spike RPD Acceptable.
Matrix Spike Dup									
.- Chloride, IC	Q17094124B	288mg/L	278.4	250	1	103.8%	80 - 120		Spike Recovery Acceptable.
3/30/2017 6:12						3.4%	20		Spike RPD Acceptable.
Fluoride, IC	Q17094124B	19.9mg/L	20.55	20	0.25	96.8%	80 - 120		Spike Recovery Acceptable.
3/30/2017 6:12						3.2%	20		Spike RPD Acceptable.
Sulfate, IC	Q17094124B	308mg/L	297.1	250	1	104.4%	70 - 130		Spike Recovery Acceptable.
3/30/2017 6:12						3.6%	20		Spike RPD Acceptable.

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 53213

Flag and Qualifier Legend

Negative - Result Detected	***MDL = Method Detection Limit***	***DF = Dilution Factor***
Caution - Problem Detected	*LOQ = Limit of Quantitation*	***j = Analyte detected between MDL and LOQ***
Warning - Null Value	***S = surrogate standard out of limit***	***H = sample out of hold time***

MS, MSD, RPD- Failure may occur due to matrix interference, data released per QA plan

Wednesday, May 03, 2017 **B Environmental - LDMS QA Report Summary**

Note: THANK YOU!

DHL Analytical, Inc. **Date:** *05-Apr-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Lab Order: 1703229

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition and Standard Methods.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives except where noted in the following. For Total Metals Analysis, the recoveries of up to four analytes for the Matrix Spike and Matrix Spike Duplicate (1703221-01A MS/MSD) were below the method control limits. This is flagged accordingly in the QC Summary Report. These analytes were within method control limits in the associated LCS. No further corrective action was taken.

For Total Metals Analysis, the recovery of Boron for the Post Digestion Spike (1703221-01A PDS) was below the method control limits. This is flagged accordingly in the QC Summary Report. This analyte was within method control limits in the associated SD. No further corrective action was taken.

For Total/Dissolved Metals Analysis, the results of dissolved Lithium/Molybdenum for four samples was slightly higher than the results of total Lithium/Molybdenum. The results were within acceptable analytical variation limits. No further corrective action was taken.

DHL Analytical, Inc.

Date: *05-Apr-17*

CLIENT:	B-Environmental	**Client Sample ID:**	Blank
Project:	Coleto Creek Power	**Lab ID:**	1703229-01
Project No:	CCR Sampling (53213)	**Alternate ID:**	S170871632
Lab Order:	1703229	**Collection Date:**	03/28/17 03:26 PM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	<0.00500	0.00500	0.0100		mg/L	1	04/03/17 02:01 PM
Dissolved Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	04/03/17 02:01 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **CVD**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	04/03/17 01:03 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	04/03/17 01:03 PM
Barium	<0.00300	0.00300	0.0100		mg/L	1	04/03/17 01:03 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	04/03/17 01:03 PM
Boron	0.0196	0.0100	0.0300	J	mg/L	1	04/03/17 01:03 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	04/03/17 01:03 PM
Calcium	<0.100	0.100	0.300		mg/L	1	04/03/17 03:59 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	04/03/17 01:03 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	04/03/17 01:03 PM
Lead	0.000429	0.000300	0.00100	J	mg/L	1	04/03/17 01:03 PM
Lithium	<0.00500	0.00500	0.0100		mg/L	1	04/03/17 01:03 PM
Magnesium	<0.100	0.100	0.300		mg/L	1	04/03/17 01:03 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	04/03/17 01:03 PM
Potassium	<0.100	0.100	0.300		mg/L	1	04/03/17 01:03 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	04/03/17 01:03 PM
Sodium	<0.100	0.100	0.300		mg/L	1	04/03/17 03:59 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	04/03/17 01:03 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	04/04/17 12:15 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.31	1	03/30/17 01:46 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.31	1	03/30/17 01:46 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.31	1	03/30/17 01:46 PM
Alkalinity, Total (As CaCO3)	<20.0	20.0	20.0		mg/L @ pH 4.31	1	03/30/17 01:46 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *05-Apr-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR Sampling (53213)
Lab Order: 1703229

Client Sample ID: MW 8
Lab ID: 1703229-02
Alternate ID: S170871635
Collection Date: 03/28/17 03:06 PM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	0.0115	0.00500	0.0100		mg/L	1	04/03/17 02:03 PM
Dissolved Molybdenum	0.0154	0.00200	0.00500		mg/L	1	04/03/17 02:03 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **CVD**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	04/03/17 01:05 PM
Arsenic	0.00839	0.00200	0.00500		mg/L	1	04/03/17 01:05 PM
Barium	0.0623	0.00300	0.0100		mg/L	1	04/03/17 01:05 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	04/03/17 01:05 PM
Boron	1.20	0.0100	0.0300		mg/L	1	04/03/17 01:05 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	04/03/17 01:05 PM
Calcium	7.76	0.100	0.300		mg/L	1	04/03/17 04:01 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	04/03/17 01:05 PM
Cobalt	0.0236	0.00300	0.00500		mg/L	1	04/03/17 01:05 PM
Lead	0.000835	0.000300	0.00100	J	mg/L	1	04/03/17 01:05 PM
Lithium	0.0111	0.00500	0.0100		mg/L	1	04/03/17 01:05 PM
Magnesium	12.9	0.100	0.300		mg/L	1	04/03/17 01:05 PM
Molybdenum	0.0154	0.00200	0.00500		mg/L	1	04/03/17 01:05 PM
Potassium	0.954	0.100	0.300		mg/L	1	04/03/17 01:05 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	04/03/17 01:05 PM
Sodium	8.96	0.100	0.300		mg/L	1	04/03/17 04:01 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	04/03/17 01:05 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	04/04/17 12:18 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	268	10.0	20.0		mg/L @ pH 4.51	1	03/30/17 01:56 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	03/30/17 01:56 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	03/30/17 01:56 PM
Alkalinity, Total (As CaCO3)	268	20.0	20.0		mg/L @ pH 4.51	1	03/30/17 01:56 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level
C	Sample Result or QC discussed in the Case Narrative
E	TPH pattern not Gas or Diesel Range Pattern
MDL	Method Detection Limit
RL	Reporting Limit
B	Analyte detected in the associated Method Blank
DF	Dilution Factor
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *05-Apr-17*

CLIENT:	B-Environmental	**Client Sample ID:**	Dup
Project:	Coleto Creek Power	**Lab ID:**	1703229-03
Project No:	CCR Sampling (53213)	**Alternate ID:**	S170871637
Lab Order:	1703229	**Collection Date:**	03/28/17
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	0.0106	0.00500	0.0100		mg/L	1	04/03/17 02:05 PM
Dissolved Molybdenum	0.0154	0.00200	0.00500		mg/L	1	04/03/17 02:05 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **CVD**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	04/03/17 01:07 PM
Arsenic	0.00830	0.00200	0.00500		mg/L	1	04/03/17 01:07 PM
Barium	0.0623	0.00300	0.0100		mg/L	1	04/03/17 01:07 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	04/03/17 01:07 PM
Boron	1.25	0.0100	0.0300		mg/L	1	04/03/17 01:07 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	04/03/17 01:07 PM
Calcium	7.92	0.100	0.300		mg/L	1	04/03/17 04:02 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	04/03/17 01:07 PM
Cobalt	0.0240	0.00300	0.00500		mg/L	1	04/03/17 01:07 PM
Lead	0.00156	0.000300	0.00100		mg/L	1	04/03/17 01:07 PM
Lithium	0.0115	0.00500	0.0100		mg/L	1	04/03/17 01:07 PM
Magnesium	13.1	0.100	0.300		mg/L	1	04/03/17 01:07 PM
Molybdenum	0.0155	0.00200	0.00500		mg/L	1	04/03/17 01:07 PM
Potassium	0.968	0.100	0.300		mg/L	1	04/03/17 01:07 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	04/03/17 01:07 PM
Sodium	9.15	0.100	0.300		mg/L	1	04/03/17 04:02 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	04/03/17 01:07 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	04/04/17 12:20 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	267	10.0	20.0		mg/L @ pH 4.52	1	03/30/17 02:05 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	03/30/17 02:05 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	03/30/17 02:05 PM
Alkalinity, Total (As CaCO3)	267	20.0	20.0		mg/L @ pH 4.52	1	03/30/17 02:05 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *05-Apr-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW 4
Project:	Coleto Creek Power	**Lab ID:**	1703229-04
Project No:	CCR Sampling (53213)	**Alternate ID:**	S170871638
Lab Order:	1703229	**Collection Date:**	03/28/17 11:27 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	0.0179	0.00500	0.0100		mg/L	1	04/03/17 02:06 PM
Dissolved Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	04/03/17 02:06 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **CVD**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	04/03/17 01:08 PM
Arsenic	0.00738	0.00200	0.00500		mg/L	1	04/03/17 01:08 PM
Barium	0.0575	0.00300	0.0100		mg/L	1	04/03/17 01:08 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	04/03/17 01:08 PM
Boron	0.287	0.0100	0.0300		mg/L	1	04/03/17 01:08 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	04/03/17 01:08 PM
Calcium	9.14	0.100	0.300		mg/L	1	04/03/17 04:04 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	04/03/17 01:08 PM
Cobalt	0.00670	0.00300	0.00500		mg/L	1	04/03/17 01:08 PM
Lead	0.000563	0.000300	0.00100	J	mg/L	1	04/03/17 01:08 PM
Lithium	0.0192	0.00500	0.0100		mg/L	1	04/03/17 01:08 PM
Magnesium	18.2	0.100	0.300		mg/L	1	04/03/17 01:08 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	04/03/17 01:08 PM
Potassium	1.38	0.100	0.300		mg/L	1	04/03/17 01:08 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	04/03/17 01:08 PM
Sodium	11.1	0.100	0.300		mg/L	1	04/03/17 04:04 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	04/03/17 01:08 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	04/04/17 12:22 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	248	10.0	20.0		mg/L @ pH 4.53	1	03/30/17 02:15 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	03/30/17 02:15 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	03/30/17 02:15 PM
Alkalinity, Total (As CaCO3)	248	20.0	20.0		mg/L @ pH 4.53	1	03/30/17 02:15 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *05-Apr-17*

CLIENT:	B-Environmental	**Client Sample ID:**	BV 15
Project:	Coleto Creek Power	**Lab ID:**	1703229-05
Project No:	CCR Sampling (53213)	**Alternate ID:**	S17087163A
Lab Order:	1703229	**Collection Date:**	03/28/17 01:08 PM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	0.00670	0.00500	0.0100	J	mg/L	1	04/03/17 02:08 PM
Dissolved Molybdenum	0.0183	0.00200	0.00500		mg/L	1	04/03/17 02:08 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **CVD**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	04/03/17 01:10 PM
Arsenic	0.00864	0.00200	0.00500		mg/L	1	04/03/17 01:10 PM
Barium	0.0525	0.00300	0.0100		mg/L	1	04/03/17 01:10 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	04/03/17 01:10 PM
Boron	1.32	0.0100	0.0300		mg/L	1	04/03/17 01:10 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	04/03/17 01:10 PM
Calcium	6.49	0.100	0.300		mg/L	1	04/03/17 04:06 PM
Chromium	0.00213	0.00200	0.00500	J	mg/L	1	04/03/17 01:10 PM
Cobalt	0.0139	0.00300	0.00500		mg/L	1	04/03/17 01:10 PM
Lead	0.00475	0.000300	0.00100		mg/L	1	04/03/17 01:10 PM
Lithium	0.00833	0.00500	0.0100	J	mg/L	1	04/03/17 01:10 PM
Magnesium	9.33	0.100	0.300		mg/L	1	04/03/17 01:10 PM
Molybdenum	0.0180	0.00200	0.00500		mg/L	1	04/03/17 01:10 PM
Potassium	1.14	0.100	0.300		mg/L	1	04/03/17 01:10 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	04/03/17 01:10 PM
Sodium	7.81	0.100	0.300		mg/L	1	04/03/17 04:06 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	04/03/17 01:10 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	04/04/17 12:25 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	179	10.0	20.0		mg/L @ pH 4.52	1	03/30/17 02:21 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	03/30/17 02:21 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	03/30/17 02:21 PM
Alkalinity, Total (As CaCO3)	179	20.0	20.0		mg/L @ pH 4.52	1	03/30/17 02:21 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *05-Apr-17*

CLIENT:	B-Environmental	**Client Sample ID:**	BV 21
Project:	Coleto Creek Power	**Lab ID:**	1703229-06
Project No:	CCR Sampling (53213)	**Alternate ID:**	S17087163B
Lab Order:	1703229	**Collection Date:**	03/28/17 01:48 PM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	<0.00500	0.00500	0.0100		mg/L	1	04/03/17 02:10 PM
Dissolved Molybdenum	0.00303	0.00200	0.00500	J	mg/L	1	04/03/17 02:10 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **CVD**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	04/03/17 01:12 PM
Arsenic	0.0954	0.00200	0.00500		mg/L	1	04/03/17 01:12 PM
Barium	0.0963	0.00300	0.0100		mg/L	1	04/03/17 01:12 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	04/03/17 01:12 PM
Boron	0.651	0.0100	0.0300		mg/L	1	04/03/17 01:12 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	04/03/17 01:12 PM
Calcium	6.89	0.100	0.300		mg/L	1	04/03/17 04:08 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	04/03/17 01:12 PM
Cobalt	0.00830	0.00300	0.00500		mg/L	1	04/03/17 01:12 PM
Lead	0.000668	0.000300	0.00100	J	mg/L	1	04/03/17 01:12 PM
Lithium	0.00628	0.00500	0.0100	J	mg/L	1	04/03/17 01:12 PM
Magnesium	8.45	0.100	0.300		mg/L	1	04/03/17 01:12 PM
Molybdenum	0.00295	0.00200	0.00500	J	mg/L	1	04/03/17 01:12 PM
Potassium	0.756	0.100	0.300		mg/L	1	04/03/17 01:12 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	04/03/17 01:12 PM
Sodium	6.39	0.100	0.300		mg/L	1	04/03/17 04:08 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	04/03/17 01:12 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	04/04/17 12:27 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	227	10.0	20.0		mg/L @ pH 4.52	1	03/30/17 02:29 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	03/30/17 02:29 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	03/30/17 02:29 PM
Alkalinity, Total (As CaCO3)	227	20.0	20.0		mg/L @ pH 4.52	1	03/30/17 02:29 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *05-Apr-17*

CLIENT:	B-Environmental	**Client Sample ID:**	BV 22
Project:	Coleto Creek Power	**Lab ID:**	1703229-07
Project No:	CCR Sampling (53213)	**Alternate ID:**	S17087163C
Lab Order:	1703229	**Collection Date:**	03/28/17 02:31 PM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	0.00682	0.00500	0.0100	J	mg/L	1	04/03/17 02:12 PM
Dissolved Molybdenum	0.00780	0.00200	0.00500		mg/L	1	04/03/17 02:12 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **CVD**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	04/03/17 01:14 PM
Arsenic	0.00698	0.00200	0.00500		mg/L	1	04/03/17 01:14 PM
Barium	0.0466	0.00300	0.0100		mg/L	1	04/03/17 01:14 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	04/03/17 01:14 PM
Boron	0.650	0.0100	0.0300		mg/L	1	04/03/17 01:14 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	04/03/17 01:14 PM
Calcium	6.76	0.100	0.300		mg/L	1	04/03/17 04:10 PM
Chromium	0.00247	0.00200	0.00500	J	mg/L	1	04/03/17 01:14 PM
Cobalt	0.00340	0.00300	0.00500	J	mg/L	1	04/03/17 01:14 PM
Lead	0.00135	0.000300	0.00100		mg/L	1	04/03/17 01:14 PM
Lithium	0.00764	0.00500	0.0100	J	mg/L	1	04/03/17 01:14 PM
Magnesium	10.3	0.100	0.300		mg/L	1	04/03/17 01:14 PM
Molybdenum	0.00765	0.00200	0.00500		mg/L	1	04/03/17 01:14 PM
Potassium	0.946	0.100	0.300		mg/L	1	04/03/17 01:14 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	04/03/17 01:14 PM
Sodium	6.25	0.100	0.300		mg/L	1	04/03/17 04:10 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	04/03/17 01:14 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	04/04/17 12:29 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	240	10.0	20.0		mg/L @ pH 4.51	1	03/30/17 02:38 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	03/30/17 02:38 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	03/30/17 02:38 PM
Alkalinity, Total (As CaCO3)	240	20.0	20.0		mg/L @ pH 4.51	1	03/30/17 02:38 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *05-Apr-17*

CLIENT: B-Environmental
Work Order: 1703229
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_170404A

The QC data in batch 79772 applies to the following samples: 1703229-01A, 1703229-02A, 1703229-03A, 1703229-04A, 1703229-05A, 1703229-06A, 1703229-07A

Sample ID	MB-79772	Batch ID:	79772	TestNo:	SW7470A	Units:	mg/L
SampType:	MBLK	Run ID:	CETAC2_HG_170404A	Analysis Date:	4/4/2017 12:09:11 PM	Prep Date:	3/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.0000800	0.000200								

Sample ID	LCS-79772	Batch ID:	79772	TestNo:	SW7470A	Units:	mg/L
SampType:	LCS	Run ID:	CETAC2_HG_170404A	Analysis Date:	4/4/2017 12:11:27 PM	Prep Date:	3/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00195	0.000200	0.00200	0	97.5	85	115			

Sample ID	LCSD-79772	Batch ID:	79772	TestNo:	SW7470A	Units:	mg/L
SampType:	LCSD	Run ID:	CETAC2_HG_170404A	Analysis Date:	4/4/2017 12:13:43 PM	Prep Date:	3/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00198	0.000200	0.00200	0	99.0	85	115	1.53	15	

Sample ID	1703238-05B SD	Batch ID:	79772	TestNo:	SW7470A	Units:	mg/L
SampType:	SD	Run ID:	CETAC2_HG_170404A	Analysis Date:	4/4/2017 12:47:46 PM	Prep Date:	3/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.000400	0.00100	0	0				0	10	

Sample ID	1703238-05B PDS	Batch ID:	79772	TestNo:	SW7470A	Units:	mg/L
SampType:	PDS	Run ID:	CETAC2_HG_170404A	Analysis Date:	4/4/2017 12:50:02 PM	Prep Date:	3/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00239	0.000200	0.00250	0	95.6	85	115			

Sample ID	1703238-05B MS	Batch ID:	79772	TestNo:	SW7470A	Units:	mg/L
SampType:	MS	Run ID:	CETAC2_HG_170404A	Analysis Date:	4/4/2017 12:52:18 PM	Prep Date:	3/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00199	0.000200	0.00200	0	99.5	80	120			

Sample ID	1703238-05B MSD	Batch ID:	79772	TestNo:	SW7470A	Units:	mg/L
SampType:	MSD	Run ID:	CETAC2_HG_170404A	Analysis Date:	4/4/2017 12:54:34 PM	Prep Date:	3/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00203	0.000200	0.00200	0	102	80	120	1.99	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1703229
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170403B

The QC data in batch 79771 applies to the following samples: 1703229-01A, 1703229-02A, 1703229-03A, 1703229-04A, 1703229-05A, 1703229-06A, 1703229-07A

Sample ID **MB-79771** Batch ID: **79771** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS5_170403B** Analysis Date: **4/3/2017 12:19:00 PM** Prep Date: **3/30/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.000800	0.00250								
Arsenic	<0.00200	0.00500								
Barium	<0.00300	0.0100								
Beryllium	<0.000300	0.00100								
Boron	<0.0100	0.0300								
Cadmium	<0.000300	0.00100								
Calcium	<0.100	0.300								
Chromium	<0.00200	0.00500								
Cobalt	<0.00300	0.00500								
Lead	<0.000300	0.00100								
Lithium	<0.00500	0.0100								
Magnesium	<0.100	0.300								
Molybdenum	<0.00200	0.00500								
Potassium	<0.100	0.300								
Selenium	<0.00200	0.00500								
Thallium	<0.000500	0.00150								

Sample ID **LCS-79771** Batch ID: **79771** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS5_170403B** Analysis Date: **4/3/2017 12:21:00 PM** Prep Date: **3/30/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.188	0.00250	0.200	0	94.0	80	120			
Arsenic	0.192	0.00500	0.200	0	95.9	80	120			
Barium	0.193	0.0100	0.200	0	96.7	80	120			
Beryllium	0.189	0.00100	0.200	0	94.4	80	120			
Boron	0.191	0.0300	0.200	0	95.4	80	120			
Cadmium	0.185	0.00100	0.200	0	92.3	80	120			
Calcium	4.72	0.300	5.00	0	94.3	80	120			
Chromium	0.193	0.00500	0.200	0	96.6	80	120			
Cobalt	0.199	0.00500	0.200	0	99.3	80	120			
Lead	0.190	0.00100	0.200	0	94.8	80	120			
Lithium	0.190	0.0100	0.200	0	94.8	80	120			
Magnesium	4.85	0.300	5.00	0	97.0	80	120			
Molybdenum	0.181	0.00500	0.200	0	90.3	80	120			
Potassium	4.75	0.300	5.00	0	95.1	80	120			
Selenium	0.194	0.00500	0.200	0	97.2	80	120			
Thallium	0.196	0.00150	0.200	0	97.8	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1703229
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170403B

Sample ID	LCSD-79771	Batch ID:	79771	TestNo:	SW6020A	Units:	mg/L
SampType:	LCSD	Run ID:	ICP-MS5_170403B	Analysis Date:	4/3/2017 12:23:00 PM	Prep Date:	3/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.189	0.00250	0.200	0	94.7	80	120	0.701	15	
Arsenic	0.194	0.00500	0.200	0	97.0	80	120	1.17	15	
Barium	0.196	0.0100	0.200	0	98.1	80	120	1.41	15	
Beryllium	0.192	0.00100	0.200	0	96.2	80	120	1.97	15	
Boron	0.198	0.0300	0.200	0	98.9	80	120	3.59	15	
Cadmium	0.187	0.00100	0.200	0	93.7	80	120	1.57	15	
Calcium	4.73	0.300	5.00	0	94.5	80	120	0.195	15	
Chromium	0.197	0.00500	0.200	0	98.7	80	120	2.17	15	
Cobalt	0.201	0.00500	0.200	0	100	80	120	1.01	15	
Lead	0.194	0.00100	0.200	0	96.9	80	120	2.16	15	
Lithium	0.201	0.0100	0.200	0	101	80	120	6.02	15	
Magnesium	4.88	0.300	5.00	0	97.6	80	120	0.596	15	
Molybdenum	0.183	0.00500	0.200	0	91.3	80	120	1.13	15	
Potassium	4.77	0.300	5.00	0	95.3	80	120	0.242	15	
Selenium	0.196	0.00500	0.200	0	98.2	80	120	1.02	15	
Thallium	0.202	0.00150	0.200	0	101	80	120	3.25	15	

Sample ID	1703221-01A SD	Batch ID:	79771	TestNo:	SW6020A	Units:	mg/L
SampType:	SD	Run ID:	ICP-MS5_170403B	Analysis Date:	4/3/2017 12:28:00 PM	Prep Date:	3/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.00400	0.0125	0	0				0	10	
Arsenic	<0.0100	0.0250	0	0				0	10	
Barium	0.0357	0.0500	0	0.0357				0.053	10	
Beryllium	<0.00150	0.00500	0	0				0	10	
Boron	0.388	0.150	0	0.358				7.90	10	
Cadmium	<0.00150	0.00500	0	0				0	10	
Chromium	<0.0100	0.0250	0	0				0	10	
Cobalt	<0.0150	0.0250	0	0				0	10	
Lead	<0.00150	0.00500	0	0				0	10	
Lithium	0.136	0.0500	0	0.135				0.050	10	
Molybdenum	<0.0100	0.0250	0	0				0	10	
Selenium	<0.0100	0.0250	0	0				0	10	
Thallium	<0.00250	0.00750	0	0				0	10	

Sample ID	1703221-01A PDS	Batch ID:	79771	TestNo:	SW6020A	Units:	mg/L
SampType:	PDS	Run ID:	ICP-MS5_170403B	Analysis Date:	4/3/2017 12:45:00 PM	Prep Date:	3/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.200	0.00250	0.200	0	100	80	120			
Arsenic	0.191	0.00500	0.200	0	95.5	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1703229
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170403B

Sample ID 1703221-01A PDS	Batch ID: 79771	TestNo: SW6020A	Units: mg/L
SampType: PDS	Run ID: ICP-MS5_170403B	Analysis Date: 4/3/2017 12:45:00 PM	Prep Date: 3/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.228	0.0100	0.200	0.0357	96.2	80	120			
Beryllium	0.189	0.00100	0.200	0	94.6	80	120			
Boron	0.497	0.0300	0.200	0.358	69.3	80	120			S
Cadmium	0.182	0.00100	0.200	0	90.9	80	120			
Chromium	0.198	0.00500	0.200	0	99.2	80	120			
Cobalt	0.191	0.00500	0.200	0	95.3	80	120			
Lead	0.190	0.00100	0.200	0	94.8	80	120			
Lithium	0.322	0.0100	0.200	0.135	93.4	80	120			
Molybdenum	0.187	0.00500	0.200	0	93.7	80	120			
Selenium	0.183	0.00500	0.200	0	91.6	80	120			
Thallium	0.199	0.00150	0.200	0	99.6	80	120			

Sample ID 1703221-01A MS	Batch ID: 79771	TestNo: SW6020A	Units: mg/L
SampType: MS	Run ID: ICP-MS5_170403B	Analysis Date: 4/3/2017 12:47:00 PM	Prep Date: 3/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.194	0.00250	0.200	0	97.2	80	120			
Arsenic	0.190	0.00500	0.200	0	95.1	80	120			
Barium	0.234	0.0100	0.200	0.0357	99.0	80	120			
Beryllium	0.192	0.00100	0.200	0	96.2	80	120			
Boron	0.515	0.0300	0.200	0.358	78.3	80	120			S
Cadmium	0.183	0.00100	0.200	0	91.4	80	120			
Calcium	437	0.300	5.00	447	-187	80	120			S
Chromium	0.196	0.00500	0.200	0	97.9	80	120			
Cobalt	0.190	0.00500	0.200	0	95.1	80	120			
Lead	0.192	0.00100	0.200	0	95.8	80	120			
Lithium	0.330	0.0100	0.200	0.135	97.1	80	120			
Magnesium	128	0.300	5.00	125	47.4	80	120			S
Molybdenum	0.187	0.00500	0.200	0	93.4	80	120			
Potassium	14.4	0.300	5.00	9.74	93.6	80	120			
Selenium	0.181	0.00500	0.200	0	90.5	80	120			
Thallium	0.205	0.00150	0.200	0	102	80	120			

Sample ID 1703221-01A MSD	Batch ID: 79771	TestNo: SW6020A	Units: mg/L
SampType: MSD	Run ID: ICP-MS5_170403B	Analysis Date: 4/3/2017 12:49:00 PM	Prep Date: 3/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.196	0.00250	0.200	0	97.9	80	120	0.714	15	
Arsenic	0.194	0.00500	0.200	0	97.2	80	120	2.17	15	
Barium	0.235	0.0100	0.200	0.0357	99.7	80	120	0.594	15	
Beryllium	0.197	0.00100	0.200	0	98.7	80	120	2.48	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1703229
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170403B

Sample ID 1703221-01A MSD	Batch ID: 79771	TestNo: SW6020A	Units: mg/L
SampType: MSD	Run ID: ICP-MS5_170403B	Analysis Date: 4/3/2017 12:49:00 PM	Prep Date: 3/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.532	0.0300	0.200	0.358	87.0	80	120	3.33	15	
Cadmium	0.186	0.00100	0.200	0	92.8	80	120	1.55	15	
Calcium	446	0.300	5.00	447	-6.81	80	120	2.04	15	S
Chromium	0.200	0.00500	0.200	0	99.9	80	120	2.02	15	
Cobalt	0.196	0.00500	0.200	0	97.8	80	120	2.78	15	
Lead	0.197	0.00100	0.200	0	98.3	80	120	2.53	15	
Lithium	0.335	0.0100	0.200	0.135	99.6	80	120	1.50	15	
Magnesium	130	0.300	5.00	125	101	80	120	2.07	15	
Molybdenum	0.193	0.00500	0.200	0	96.3	80	120	3.03	15	
Potassium	14.5	0.300	5.00	9.74	95.6	80	120	0.685	15	
Selenium	0.188	0.00500	0.200	0	93.9	80	120	3.64	15	
Thallium	0.209	0.00150	0.200	0	105	80	120	2.17	15	

Sample ID MB-79771	Batch ID: 79771	TestNo: SW6020A	Units: mg/L
SampType: MBLK	Run ID: ICP-MS5_170403B	Analysis Date: 4/3/2017 3:08:00 PM	Prep Date: 3/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	<0.100	0.300								

Sample ID LCS-79771	Batch ID: 79771	TestNo: SW6020A	Units: mg/L
SampType: LCS	Run ID: ICP-MS5_170403B	Analysis Date: 4/3/2017 3:09:00 PM	Prep Date: 3/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	5.16	0.300	5.00	0	103	80	120			

Sample ID LCSD-79771	Batch ID: 79771	TestNo: SW6020A	Units: mg/L
SampType: LCSD	Run ID: ICP-MS5_170403B	Analysis Date: 4/3/2017 3:11:00 PM	Prep Date: 3/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	5.16	0.300	5.00	0	103	80	120	0.142	15	

Sample ID 1703221-01A SD	Batch ID: 79771	TestNo: SW6020A	Units: mg/L
SampType: SD	Run ID: ICP-MS5_170403B	Analysis Date: 4/3/2017 3:16:00 PM	Prep Date: 3/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	450	150	0	452				0.479	10	
Magnesium	134	150	0	134				0.063	10	
Sodium	101	150	0	91.6				9.35	10	

Qualifiers:

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL
DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1703229
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170403B

Sample ID 1703221-01A PDS	Batch ID: 79771	TestNo: SW6020A	Units: mg/L
SampType: PDS	Run ID: ICP-MS5_170403B	Analysis Date: 4/3/2017 3:34:00 PM	Prep Date: 3/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	917	30.0	500	452	93.0	80	120			
Magnesium	656	30.0	500	134	104	80	120			
Sodium	609	30.0	500	91.6	103	80	120			

Sample ID 1703221-01A MS	Batch ID: 79771	TestNo: SW6020A	Units: mg/L
SampType: MS	Run ID: ICP-MS5_170403B	Analysis Date: 4/3/2017 4:15:00 PM	Prep Date: 3/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	92.6	3.00	5.00	90.0	52.3	80	120			S

Sample ID 1703221-01A MSD	Batch ID: 79771	TestNo: SW6020A	Units: mg/L
SampType: MSD	Run ID: ICP-MS5_170403B	Analysis Date: 4/3/2017 4:17:00 PM	Prep Date: 3/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	95.2	3.00	5.00	90.0	104	80	120	2.76	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1703229
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170403B

The QC data in batch 79781 applies to the following samples: 1703229-01B, 1703229-02B, 1703229-03B, 1703229-04B, 1703229-05B, 1703229-06B, 1703229-07B

Sample ID **MB-79781** Batch ID: **79781** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS5_170403B** Analysis Date: **4/3/2017 1:51:00 PM** Prep Date: **3/30/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.00500	0.0100								
Molybdenum	<0.00200	0.00500								

Sample ID **LCS-79781** Batch ID: **79781** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS5_170403B** Analysis Date: **4/3/2017 1:52:00 PM** Prep Date: **3/30/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.211	0.0100	0.200	0	105	80	120			
Molybdenum	0.188	0.00500	0.200	0	93.9	80	120			

Sample ID **LCSD-79781** Batch ID: **79781** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS5_170403B** Analysis Date: **4/3/2017 1:54:00 PM** Prep Date: **3/30/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.213	0.0100	0.200	0	107	80	120	1.07	15	
Molybdenum	0.188	0.00500	0.200	0	93.9	80	120	0.070	15	

Sample ID **1703221-01B SD** Batch ID: **79781** TestNo: **SW6020A** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS5_170403B** Analysis Date: **4/3/2017 1:59:00 PM** Prep Date: **3/30/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.146	0.0500	0	0.143				2.20	10	
Molybdenum	<0.0100	0.0250	0	0				0	10	

Sample ID **1703221-01B PDS** Batch ID: **79781** TestNo: **SW6020A** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS5_170403B** Analysis Date: **4/3/2017 2:17:00 PM** Prep Date: **3/30/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.342	0.0100	0.200	0.143	99.7	80	120			
Molybdenum	0.188	0.00500	0.200	0	94.1	80	120			

Sample ID **1703221-01B MS** Batch ID: **79781** TestNo: **SW6020A** Units: **mg/L**
SampType: **MS** Run ID: **ICP-MS5_170403B** Analysis Date: **4/3/2017 2:19:00 PM** Prep Date: **3/30/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.348	0.0100	0.200	0.143	102	80	120			
Molybdenum	0.191	0.00500	0.200	0	95.6	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1703229
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170403B

Sample ID **1703221-01B MSD**	Batch ID: **79781**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **MSD**	Run ID: **ICP-MS5_170403B**	Analysis Date: **4/3/2017 2:20:00 PM**	Prep Date: **3/30/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.349	0.0100	0.200	0.143	103	80	120	0.502	15	
Molybdenum	0.194	0.00500	0.200	0	96.8	80	120	1.26	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1703229
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_170330B

The QC data in batch 79766 applies to the following samples: 1703229-01C, 1703229-02C, 1703229-03C, 1703229-04C, 1703229-05C, 1703229-06C, 1703229-07C

Sample ID **MB-79766** Batch ID: **79766** TestNo: **M2320 B** Units: **mg/L @ pH 4.2**
SampType: **MBLK** Run ID: **TITRATOR_170330B** Analysis Date: **3/30/2017 10:23:00 AM** Prep Date: **3/30/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0								
Alkalinity, Total (As CaCO3)	<20.0	20.0								

Sample ID **LCS-79766** Batch ID: **79766** TestNo: **M2320 B** Units: **mg/L @ pH 4.05**
SampType: **LCS** Run ID: **TITRATOR_170330B** Analysis Date: **3/30/2017 10:27:00 AM** Prep Date: **3/30/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	54.1	20.0	50.00	0	108	74	129			

Sample ID **1703218-01B-DUP** Batch ID: **79766** TestNo: **M2320 B** Units: **mg/L @ pH 4.52**
SampType: **DUP** Run ID: **TITRATOR_170330B** Analysis Date: **3/30/2017 11:13:00 AM** Prep Date: **3/30/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	279	20.0	0	279.9				0.250	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	279	20.0	0	279.9				0.250	20	

Sample ID **1703218-02B-DUP** Batch ID: **79766** TestNo: **M2320 B** Units: **mg/L @ pH 4.54**
SampType: **DUP** Run ID: **TITRATOR_170330B** Analysis Date: **3/30/2017 11:55:00 AM** Prep Date: **3/30/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	493	20.0	0	490.1				0.590	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	493	20.0	0	490.1				0.590	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-00843
Client Sample ID: S170871632 (BATCH 53213)
Sample Collection Date: 03/28/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-00843-005
Date Received: 04/03/17
Report Date: 04/28/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	1.063	0.302	0.161	0.062	NP		pCi/L	ARS-010/EPA 903.0/904.0	04/20/17 7:46	SCAUSEY	109%
Ra-228	0.905	0.755	1.199	0.557	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	04/13/17 13:03	SCAUSEY	105%

Project Manager Review

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-00843
Client Sample ID: S170871635 (BATCH 53213)
Sample Collection Date: 03/28/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-00843-006
Date Received: 04/03/17
Report Date: 04/28/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.208	0.141	0.185	0.073	NP		pCi/L	ARS-010/EPA 903.0/904.0	04/20/17 7:46	SCAUSEY	98%
Ra-228	0.244	0.748	1.310	0.609	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	04/13/17 13:03	SCAUSEY	88%

Project Manager Review

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-00843
Client Sample ID: S170871637 (BATCH 53213)
Sample Collection Date: 03/28/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-00843-007
Date Received: 04/03/17
Report Date: 04/28/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.102	0.109	0.168	0.065	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	04/20/17 7:46	SCAUSEY	103%
Ra-228	1.245	0.765	1.141	0.528	NP		pCi/L	ARS-010/EPA 903.0/904.0	04/13/17 13:03	SCAUSEY	95%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-00843
Client Sample ID: S170871638 (BATCH 53213)
Sample Collection Date: 03/28/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-00843-001
Date Received: 04/03/17
Report Date: 04/28/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.319	0.156	0.149	0.055	NP		pCi/L	ARS-010/EPA 903.0/904.0	04/20/17 7:47	SCAUSEY	102%
Ra-228	0.141	0.703	1.249	0.579	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	04/13/17 13:03	SCAUSEY	89%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-00843
Client Sample ID: S17087163A (BATCH 53213)
Sample Collection Date: 03/28/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-00843-002
Date Received: 04/03/17
Report Date: 04/28/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.421	0.175	0.144	0.054	NP		pCi/L	ARS-010/EPA 903.0/904.0	04/20/17 7:47	SCAUSEY	97%
Ra-228	0.607	0.698	1.153	0.534	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	04/13/17 13:03	SCAUSEY	91%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-00843
Client Sample ID: S17087163B (BATCH 53213)
Sample Collection Date: 03/28/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-00843-003
Date Received: 04/03/17
Report Date: 04/28/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.434	0.176	0.140	0.052	NP		pCi/L	ARS-010/EPA 903.0/904.0	04/20/17 7:47	SCAUSEY	101%
Ra-228	0.956	0.729	1.139	0.527	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	04/13/17 13:03	SCAUSEY	100%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-00843
Client Sample ID: S17087163C (BATCH 53213)
Sample Collection Date: 03/28/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-00843-004
Date Received: 04/03/17
Report Date: 04/28/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.284	0.151	0.178	0.072	NP		pCi/L	ARS-010/EPA 903.0/904.0	04/20/17 7:47	SCAUSEY	108%
Ra-228	0.334	0.704	1.214	0.565	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	04/13/17 13:03	SCAUSEY	110%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

QC Results Report

Sample Delivery Group: ARS1-17-00843;853

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-00642	LCS	RA-226	27.896	4.493	0.089	27.577	N/A	pCi/L	ARS-010/EPA 903	4/20/17 7:46	SC	101	75%-125%
ARS1-B17-00642	LCS	RA-228	37.823	6.300	1.095	39.784	N/A	pCi/L	ARS-010/EPA 904	4/20/17 7:46	SC	95	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-00642	MBL	RA-226	0.003	0.042	0.091	NA	U	pCi/L	ARS-010/EPA 903	4/20/17 7:46	SC
ARS1-B17-00642	MBL	RA-228	0.249	0.353	0.672	NA	U	pCi/L	ARS-010/EPA 904	4/20/17 7:46	SC

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-00642	LCSD	RA-226	27.896	4.493	33.893	5.448	N/A	pCi/L	ARS-010/EPA 903	4/20/17 7:46	SC	0.60	< 1
ARS1-B17-00642	LCSD	RA-228	37.823	6.300	37.670	6.267	N/A	pCi/L	ARS-010/EPA 904	4/20/17 7:46	SC	0.01	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-00642	LCSD	RA-226	27.896	4.493	33.893	5.448	N/A	pCi/L	ARS-010/EPA 903	4/20/17 7:46	SC	1.70	< 3
ARS1-B17-00642	LCSD	RA-228	37.823	6.300	37.670	6.267	N/A	pCi/L	ARS-010/EPA 904	4/20/17 7:46	SC	0.03	< 3

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

ARS INTERNATIONAL
2609 North River Road • Port Allen, Louisiana 70767
1 (800) 401-4277 • Fax (225) 381-2996

Notes (Case Narrative):

Comments:

1.0) All MDA/MDC values are calculated on a sample specific basis.
2.0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.
3.0) Data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.
4.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix. Modified analyses are indicated by the subsequent addition of "m" to the procedure number (i.e. 900.0M).
5.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than the actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
6.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228 (Gamma Spectroscopy only).
7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234 (Gamma Spectroscopy only).
8.0) All gamma spectroscopy was performed utilizing high purity germanium detectors (**HPGe**).
9.0) ARS makes every attempt to match sample density to calibrated density; however, in some cases, it is not practical or possible to do so and data results may be affected (Gamma Spectroscopy only).
10.0) Gamma spectroscopy results are calculated values based on the **ORTEC®** GammaVision ENV32 Analysis Engine.
11.0) ACLASS DOD and ISO 17025 certification applies only to the following analytes and methods: Gross Alpha and Gross Beta (EPA 900, SM7110B&C, SW846 9310); Radium 226 (EPA 903, EPA 903.1, SM 7500 Ra-B, SW846 9315); Radium 228 (EPA 904, SM 7500 Ra-B SW846 9320); Iodine-131(EPA 901.1); Uranium by ICPMS (EPA 200.8); Strontium 89/90 (EPA 905, Eichrom SRW01, HASL 300 Sr-03-RC); Tritium (EPA 906, EPA 906M); Gamma Emitters (EPA 901.1, SM7120B, HASL 300 Ga-01-R); Americium-241, Curium 242/244, Plutonium 239/240 and 241, Thorium 228/230/232, Uranium 234/233 and 238 (Eichrom ACW03 VBS); Lead 210 (HASL 300 Pb-01-RC, Eichrom OTW01); Polonium 210 (HASL 300 Po-01-RC, HASL 300 Po-02-RC); Technetium-99 (Eichrom TCW02, Eichrom TCS01M).

Method References:

1.0) **EPA 600/4-80-032**; Prescribed Procedures for the Measurements of Radioactivity in Drinking Water, August 1980.
2.0) **Standard Methods for the Examination of Water and Wastewater** (On-Line Edition)
3.0) **EPA SW-846**; Test Methods for Evaluating Solid Waste, (On-Line edition)
4.0) **EPA 600/4/79-020**; Methods for Chemical Analysis of Water and Waste, March 1983.
5.0) **HASL 300;** The Procedures Manual of the Environmental Measurements Laboratory, Volume I, 28th Edition February, 1997.

Definitions:

CRDL	Contract Required Detection Limit
CSU	Combined Standard Uncertainty
DLC	Decision Level Concentration (ANSI N42.23) or critical level
DO	Duplicate Original
DUP	Method Duplicate
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
MDA	Minimum Detectable Activity
MDC	(Minimum Detectable Concentration) minimum concentration of the analyte that ARS can detect utilizing the specific analysis
MBL	Method Blank
MS/MSD	Matrix Spike/Matrix Spike Duplicate
N/A	Not Applicable
NP	Not Provided
NR	Not Referenced
LOD	Limit of Detection
LOQ	Limit of Quantitation

Data Qualifiers:

B	The analyte is found in both the associated method blank and the sample. This flag indicates probable blank contamination.
D	Sample analysis accomplished through dilution.
J	The reported result is an estimated value above the limit of detection but outside of quantitation range (e.g., matrix interference was observed).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).
U	Activity is below the MDC, MDA, MDL, or LOD
N	The analyte is a tentatively identified compound using mass spectrometry or any non-customer requested compounds that are tentatively identified.
*	LCS/LCSD or MS/MSD fails RPD criteria.
S	Spike
SC	Subcontracted out to another qualified laboratory
H	Holding time exceeded

LELAP Cert# 01949 ***NELAP Cert# E87558***

ARS-059-010
Revision: 9.1
Revision Date: 03-14-2017

B - Environmental

Chain of Custody Record

Batch # 53213 | TEMP UN-C: 9.8 | Page 1 of 2 | THERM ID# 3 | TEMP Corr: 9.4

Customer / Report Information
Name: Coleto Creek Power
Attention: Rick Coleman
Address:

Billing Information ☒ Check box if Billing is the same as Report Information
Address:
Attention: PO#:
Project: CCR Sampling
Comments:

Phone: 361-788-5145 FAX:
EMAIL: Richard.coleman@dynegy.com

Requested Analysis: Metals* (B); Cl, F*, SO4 (C); pH (C); TDS (A); Ra 226/228 (F); Alk: Tot, Carb, Bicarb (D); Diss. Li + Mo (E)

Completed By Laboratory: Custody Seals Present Yes ☐ No ☐; Intact Yes ☐ No ☐

Sample Information
Collected By: BL Smith

Matrix: DW - Drinking H20, S - Solid, WW - Waste H20, SL - Sludge, L - Liquid, W - Water
C=Composite, G=Grab

Client / Field Sample ID	Date	Time	C/G	Matrix	Type	Number	Size	Preservative	Metals*	Cl, F*, SO4	pH	TDS	Ra 226/228	Alk: Tot, Carb, Bicarb	Diss. Li + Mo	LAB Sample Number
BLANK	3-28-17	1526	G	W	P	6	1L / 500 / 250	☒ HNO3, ☒ ICE	X	X	X	X	X	X	X	S170871632
MW 8	3-28-17	1506	″	″	″	″	″	☒ HNO3, ☒ ICE	X	X	X	X	X	X	X	S170871635
Dup	3-28-17		″	″	″	″	″	☒ HNO3, ☒ ICE	X	X	X	X	X	X	X	S170871637
			″	″	″	″	″	☒ HNO3, ☒ ICE	X	X	X	X	X	X	X	
			″	″	″	″	″	☒ HNO3, ☒ ICE	X	X	X	X	X	X	X	
			″	″	″	″	″	☒ HNO3, ☒ ICE	X	X	X	X	X	X	X	
			″	″	″	″	″	☒ HNO3, ☒ ICE	X	X	X	X	X	X	X	

Preservative options: H2SO4, H3PO4, ICE, HNO3, NaOH, HCL, Na2SO3

Required Turnaround: ☒ Routine (6-10 Business Days) Expedite / Rush: ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business Days ☐ 5 Business Days ☐ Other ______ REMARKS:

Surcharge will apply to RUSH TAT Authorized By:

Container Type: P=Plastic, G=Glass, V=VOA, O=Other | Carrier ID :

Relinquished By	Date	Time	Received By	Date	Time
[signature]	3-28-17	1550	Eddie Fick [signature]	3/28/17	1550
Eddie Fick [signature]	3-28-17	1630	[signature]	3/28/17	1630

Fluoride: 0.25 mg/L; Metals*: B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, ~~Ca~~ Mg, K, Na + Hg

B - Environmental

Chain of Custody Record

Batch # 53213 | TEMP UN-C: 9.8 | Page 2 of 2 | THERM ID# 3 | TEMP Corr: 9.4

Customer / Report Information

Name: Coleto Creek Power
Attention: Rick Coleman
Address:

Billing Information ☒ Check box if Billing is the same as Report information

Address:
Attention: PO#:
Project: CCR Sampling
Comments:

Phone: 361-788-5145 FAX:
EMAIL: Richard.coleman@dynegy.com

Sample Information

Collected By: B L Smith

Client / Field Sample ID	Collected Date	Collected Time	G=Grab C=Composite	Matrix (DW - Drinking H20, S - Solid, WW - Waste H20, SL - Sludge, L - Liquid, W - Water)	Container TYPE	Container NUMBER	Container SIZE	Preservative	Requested Analysis: Metals*	Cl, F* SO4	pH	TDS	Ra 226 & 228	Alk: Tot, Carb, Bicarb	Diss. Li & Mo	Custody Seals Present (Yes ☐ No ☐) / Intact (Yes ☐ No ☐) LAB Sample Number
MW 4	3-28-17	1127	G	GW	P	6	1L 500 250	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3	X	X	X	X	X	X	X	S170871638
BV 15	3-28-17	1308						☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3	X	X	X	X	X	X	X	S17087163A
BV 21	3-28-17	1348						☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3	X	X	X	X	X	X	X	S17087163B
BV 22	3-28-17	1431						☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3	X	X	X	X	X	X	X	S17087163C
								☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3	X	X	X	X	X	X	X	
								☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3	X	X	X	X	X	X	X	
								☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3	X	X	X	X	X	X	X	

Required Turnaround: ☒ Routine (6-10 Business Days) Expedite / Rush: ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business Days ☐ 5 Business Days ☐ Other _____ REMARKS:

Surcharge will apply to RUSH TAT Authorized By: Container Type: P=Plastic, G=Glass, V=VOA, O=Other Carrier ID :

Relinquished By:		Date: 3-28-17	Time: 1550	Received By:	Eddie Ficke	Date: 3/28/17	Time: 1550
Relinquished By:		Date: 3-28-17	Time: 1630	Received By:		Date: 3-28-17	Time: 1630
Relinquished By:		Date:	Time:	Received By:		Date:	Time:

1606 E Brazos Suite D, Victoria, Texas 77901 Ph. (361) 572-8224 Fax (361) 572-4115 Toll Free 1-800-460-8223 Form #1000.0-2 REV 1.2 Email: kbenviro@suddenlinkmail.com www.benvironmental.net

Fluoride: 0.25 mg/L ; Metals*: B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, Mg, K, Na & Hg

BatchNo: 53245

SAMPLE REPORT

T104704328-17-14

Business

Coleto Creek Power - R Coleman
PO Box 8
Fannin TX 77960
Att: Rick Coleman

Laboratory

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901
ph. 361-572-8224

Reference Information

Project: CCR Sampling

Printed: Wednesday, May 03, 2017

Re: Coleto Creek Power - R Coleman

Dear: Rick Coleman

Attached are the results for sample(s) received on 3/29/2017

The analytical results relate only to the samples tested.
All supporting quality data meets the requirements of NELAC unless noted in the case narrative section of the report.

This report contains 42 pages (including the cover page)

If you have any questions concerning this report, please do not hesitate to call (361) 572-8224 or Fax us at (361) 572-4115

Respectfully Submitted,

Kevin Baros

Laboratory Director

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 53245 **Page 2 of 42**

Batch No: 53245

Sample Receipt Checklist

Date Received: 3/30/2017

Project	CCR Sampling	Received By:	Vahrenkamp

Login completed by: Vahrenkamp (Signature) 3/30/2017 (LoginDate:)

Carrier Name: Walk In

Shipping container/cooler in good condition?	☑ YES	☐ NO	☐ Not Present
Custody seals intact on shipping container/cooler?	☐ YES	☐ NO	☑ Not Present
Custody seals intact on sample bottles?	☐ YES	☐ NO	☑ Not Present
Chain of Custody present?	☑ YES	☐ NO	
Chain of Custody signed when relinquished and received	☑ YES	☐ NO	
Chain of Custody agrees with sample labels?	☑ YES	☐ NO	
Samples in proper container/bottles?	☑ YES	☐ NO	
Sample containers intact?	☑ YES	☐ NO	
Sufficient sample volume for indicated tests?	☑ YES	☐ NO	
All samples received within holding times?	☑ YES	☐ NO	
Container/Temp Blank - temperature in compliance?	☑ YES	☐ NO	>0 <6 °C On Ice
Water - VOA vials have zero headspace? Bubble < 6mm?	☐ YES	☐ NO	☑ No VOA Vials submitted
Water - pH acceptable upon receipt?	☑ YES	☐ NO	☐ Not Applicable

*TEMP 17.4/17.0 | pH Adjusted? No | Checked By L. Vahrenkamp

Any No and/or N/A (not applicable) response must be detailed in the comments section below.

Client contacted		PersonContacted	
Contacted by:		Date Contacted:	

Regarding

Comments

Therm #3. HNO3 Lot # 2-42-12. pH paper lot # 2-25-6. The samples were received the same day they were collected and were in the process of cooling.

Corrective Action

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 53245

Sample Report Information

Sample ID:	S170881623	Client ID:	BV-19	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV-19
Notes:

Batch No: 53245
Sampled: 3/29/2017 9:56 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	94	mg/L	EPA 300	K Baros	3/30/2017 21:18	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	280	mg/L	SM 2320 B		4/3/2017 10:14	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		4/3/2017 10:14	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	280	mg/L	SM 2320 B		4/3/2017 10:14	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.53	mg/L	EPA 300	K Baros	3/30/2017 21:18	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.14	SU	SM 4500-H+B	C Watts	3/29/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	546	mg/L	SM2540C	C Watts	4/3/2017 16:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			4/4/2017 10:45					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	43	mg/L	EPA 300	K Baros	3/30/2017 21:18	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			4/17/2017 9:40					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 53245

Sample Report Information

Sample ID:	S17088162A	Client ID:	BV-10	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV-10
Notes:

Batch No: 53245
Sampled: 3/29/2017 10:38 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	86	mg/L	EPA 300	K Baros	3/30/2017 23:50	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	290	mg/L	SM 2320 B		4/3/2017 10:24	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		4/3/2017 10:24	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	290	mg/L	SM 2320 B		4/3/2017 10:24	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.81	mg/L	EPA 300	K Baros	3/30/2017 23:50	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.73	SU	SM 4500-H+B	C Watts	3/29/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	618	mg/L	SM2540C	C Watts	4/3/2017 16:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	c	#			4/4/2017 10:47					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	86	mg/L	EPA 300	K Baros	3/30/2017 23:50	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	c	#			4/17/2017 9:40					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 53245

Sample Report Information

Sample ID:	S17088162B	Client ID:	BV-5	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV-5
Notes:

Batch No: 53245
Sampled: 3/29/2017 12:45 PM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	118	mg/L	EPA 300	K Baros	3/30/2017 23:12	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	384	mg/L	SM 2320 B		4/3/2017 10:38	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		4/3/2017 10:38	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	384	mg/L	SM 2320 B		4/3/2017 10:38	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.54	mg/L	EPA 300	K Baros	3/30/2017 23:12	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.19	SU	SM 4500-H+B	C Watts	3/29/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	860	mg/L	SM2540C	C Watts	4/3/2017 16:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			4/4/2017 10:49					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	147	mg/L	EPA 300	K Baros	3/30/2017 23:12	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			4/17/2017 9:40					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 53245

Sample Report Information

Sample ID:	S17088162C	Client ID:	BV-1	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV-1
Notes:

Batch No: 53245
Sampled: 3/29/2017 1:21 PM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	138	mg/L	EPA 300	K Baros	3/30/2017 18:45	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	392	mg/L	SM 2320 B		4/3/2017 10:52	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		4/3/2017 10:52	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	392	mg/L	SM 2320 B		4/3/2017 10:52	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.8	mg/L	EPA 300	K Baros	3/30/2017 18:45	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.53	SU	SM 4500-H+B	C Watts	3/29/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	956	mg/L	SM2540C	C Watts	4/3/2017 16:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			4/4/2017 10:51					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	185	mg/L	EPA 300	K Baros	3/30/2017 18:45	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			4/17/2017 9:40					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 53245

Sample Report Information

Sample ID:	S17088162D	Client ID:	MW-6	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #6
Notes:

Batch No: 53245
Sampled: 3/29/2017 2:16 PM

Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	69	mg/L	EPA 300	K Baros	3/30/2017 16:51	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	181	mg/L	SM 2320 B		4/3/2017 10:59	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		4/3/2017 10:59	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	181	mg/L	SM 2320 B		4/3/2017 10:59	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.38	mg/L	EPA 300	K Baros	3/30/2017 16:51	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.41	SU	SM 4500-H+B	C Watts	3/29/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	510	mg/L	SM2540C	C Watts	4/3/2017 16:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			4/4/2017 10:32					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	99	mg/L	EPA 300	K Baros	3/30/2017 16:51	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			4/17/2017 9:40					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 53245

Sample Report Information

Sample ID:	S17088162E	Client ID:	MW-7	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #7
Notes:

Batch No: 53245
Sampled: 3/29/2017 3:01 PM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	91	mg/L	EPA 300	K Baros	3/31/2017 1:44	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	250	mg/L	SM 2320 B		4/3/2017 11:15	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		4/3/2017 11:15	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	250	mg/L	SM 2320 B		4/3/2017 11:15	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.6	mg/L	EPA 300	K Baros	3/31/2017 1:44	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.42	SU	SM 4500-H+B	C Watts	3/29/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	560	mg/L	SM2540C	C Watts	4/3/2017 16:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			4/4/2017 11:07					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	75	mg/L	EPA 300	K Baros	3/31/2017 1:44	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			4/17/2017 7:34					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 53245

Sample Report Information

Sample ID:	S17088162F	Client ID:	Dup	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: Dup
Notes:

Batch No: 53245
Sampled: 3/29/2017 12:00 AM

Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	91	mg/L	EPA 300	K Baros	3/31/2017 2:22	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	250	mg/L	SM 2320 B		4/3/2017 11:25	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		4/3/2017 11:25	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	250	mg/L	SM 2320 B		4/3/2017 11:25	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.59	mg/L	EPA 300	K Baros	3/31/2017 2:22	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.37	SU	SM 4500-H+B	C Watts	3/29/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	568	mg/L	SM2540C	C Watts	4/3/2017 16:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			4/4/2017 11:09					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	75	mg/L	EPA 300	K Baros	3/31/2017 2:22	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			4/17/2017 7:34					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 53245

QA Summary Report

Parameter	ID	Result	Ref Value	Amt Added	LOQ	Qualifer	Control	Flag	Comments
.Method Blank									
.- Chloride, IC	Q170941254	<1mg/L	0		1		1		Blank Acceptable.
3/30/2017 14:56									
Fluoride, IC	Q170941254	<0.25mg/L	0		0.25		0.25		Blank Acceptable.
3/30/2017 14:56									
Nitrate/Nitrite-N	Q170941254	<0.08ppm	0		0.08		0.08		Blank Acceptable.
3/30/2017 14:56									
Solids, Total Dissolved	Q170941424	<25mg/L	0		10		25		Blank Acceptable.
4/3/2017 16:00									
Sulfate, IC	Q170941254	<1mg/L	0		1		1		Blank Acceptable.
3/30/2017 14:56									
Duplicate									
pH (Standard Units)	Q170891047	7.44SU	7.41		2	0.4%	20		Duplicate RPD Acceptable.
3/29/2017 16:45									
Solids, Total Dissolved	Q170941425	514mg/L	510		10	0.8%	20		Duplicate RPD Acceptable.
4/3/2017 16:00									
Laboratory Control Standard									
.- Chloride, IC	Q170941255	26.2mg/L	25		1	104.8%	80 - 120		Standard Recovery Acceptable.
3/30/2017 15:35						4.7%	20		Standard RPD Acceptable.
Fluoride, IC	Q170941255	2.1mg/L	2		0.25	105.0%	80 - 120		Standard Recovery Acceptable.
3/30/2017 15:35						4.9%	20		Standard RPD Acceptable.
Nitrate/Nitrite-N	Q170941255	1.09ppm	1.06		0.08	102.8%	80 - 120		Standard Recovery Acceptable.
3/30/2017 15:35						2.8%	20		Standard RPD Acceptable.
pH (Standard Units)	Q170891046	7.01SU	7		2	100.1%	80 - 120		Standard Recovery Acceptable.
3/29/2017 16:45						0.1%	20		Standard RPD Acceptable.
Sulfate, IC	Q170941255	26.7mg/L	25		1	106.8%	80 - 120		Standard Recovery Acceptable.
3/30/2017 15:35						6.6%	20		Standard RPD Acceptable.
Matrix Spike									
.- Chloride, IC	Q17094125A	88mg/L	87	25	1	104.0%	80 - 120		Spike Recovery Acceptable.
3/30/2017 17:29						1.1%	20		Spike RPD Acceptable.
Fluoride, IC	Q17094125A	2.26mg/L	2.34	2	0.25	96.0%	80 - 120		Spike Recovery Acceptable.
3/30/2017 17:29						3.5%	20		Spike RPD Acceptable.
Nitrate/Nitrite-N	Q17094125A	1.05ppm	1.06	1.06	0.08	99.1%	80 - 120		Spike Recovery Acceptable.
3/3/2017 17:29						0.9%	20		Spike RPD Acceptable.
Sulfate, IC	Q17094125A	115mg/L	114.6	25	1	101.6%	70 - 130		Spike Recovery Acceptable.
3/30/2017 17:29						0.3%	20		Spike RPD Acceptable.

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 53245 **Page 11 of 42**

Parameter	ID	Result	Réf Value	Amt Added	LOQ	Qualifer	Control	Flag	Comments
Matrix Spike Dup									
.- Chloride, IC	**Q17094125B**	87.9mg/L	87	25	1	103.6%	80 - 120		Spike Recovery Acceptable.
3/30/2017 18:07						1.0%	20		Spike RPD Acceptable.
Fluoride, IC	**Q17094125B**	2.27mg/L	2.34	2	0.25	96.5%	80 - 120		Spike Recovery Acceptable.
3/30/2017 18:07						3.0%	20		Spike RPD Acceptable.
Nitrate/Nitrite-N	**Q17094125B**	1.05ppm	1.06	1.06	0.08	99.1%	80 - 120		Spike Recovery Acceptable.
3/27/2017 18:07						0.9%	20		Spike RPD Acceptable.
Sulfate, IC	**Q17094125B**	115mg/L	114.6	25	1	101.6%	70 - 130		Spike Recovery Acceptable.
3/30/2017 18:07						0.3%	20		Spike RPD Acceptable.

Flag and Qualifier Legend

Negative - Result Detected ***MDL = Method Detection Limit*** ***DF = Dilution Factor***

Caution - Problem Detected *LOQ = Limit of Quantitation* ***j = Analyte detected between MDL and LOQ***

Warning - Null Value ***S = surrogate standard out of limit*** ***H = sample out of hold time***

MS, MSD, RPD- Failure may occur due to matrix interference, data released per QA plan

Wednesday, May 03, 2017 **B Environmental - LDMS QA Report Summary**

Note: THANK YOU!

DHL Analytical, Inc. **Date:** *07-Apr-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Lab Order: 1703259

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition and Standard Methods.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives except where noted in the following. For Total Metals Analysis, for Batch 79805, the recoveries of three analytes for the Matrix Spike and Matrix Spike Duplicate (1703259-05 MS/MSD) were outside of the method control limits. These are flagged accordingly in the QC Summary Report. These analytes were within method control limits in the associated LCS. No further corrective action was taken.

For Mercury Analysis, the recovery of the Post Digestion Spike (1703259-05 PDS) was below the method control limits. This is flagged accordingly in the QC Summary Report. The associated Serial Dilution was within method control limits. No further corrective action was taken.

For Total/ Dissolved Metals Analysis, the results of Dissolved Lithium/Molybdenum for five of the samples was slightly greater than the results of Total Lithium/Molybdenum. These results are within acceptable analytical variation limits. No further corrective action was taken.

DHL Analytical, Inc.

Date: *07-Apr-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (53245)
Lab Order: 1703259

Client Sample ID: BV-19
Lab ID: 1703259-01
Alternate ID: S170881623
Collection Date: 03/29/17 09:56 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	0.0129	0.00500	0.0100		mg/L	1	04/06/17 12:45 PM
Dissolved Molybdenum	0.00548	0.00200	0.00500		mg/L	1	04/06/17 12:45 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	04/04/17 10:45 AM
Arsenic	0.00861	0.00200	0.00500		mg/L	1	04/04/17 10:45 AM
Barium	0.0799	0.00300	0.0100		mg/L	1	04/04/17 10:45 AM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 10:45 AM
Boron	0.789	0.100	0.300		mg/L	10	04/05/17 10:42 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 10:45 AM
Calcium	80.1	1.00	3.00		mg/L	10	04/05/17 10:42 AM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	04/04/17 10:45 AM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	04/04/17 10:45 AM
Lead	0.000368	0.000300	0.00100	J	mg/L	1	04/04/17 10:45 AM
Lithium	0.0124	0.00500	0.0100		mg/L	1	04/04/17 10:45 AM
Magnesium	20.3	0.100	0.300		mg/L	1	04/04/17 10:45 AM
Molybdenum	0.00547	0.00200	0.00500		mg/L	1	04/04/17 10:45 AM
Potassium	0.662	0.100	0.300		mg/L	1	04/04/17 10:45 AM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	04/04/17 10:45 AM
Sodium	75.3	1.00	3.00		mg/L	10	04/05/17 10:42 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	04/04/17 10:45 AM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	04/05/17 10:16 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	280	10.0	20.0		mg/L @ pH 4.52	1	04/03/17 10:14 AM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	04/03/17 10:14 AM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	04/03/17 10:14 AM
Alkalinity, Total (As CaCO3)	280	20.0	20.0		mg/L @ pH 4.52	1	04/03/17 10:14 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *07-Apr-17*

CLIENT:	B-Environmental	**Client Sample ID:**	BV-10
Project:	Coleto Creek Power	**Lab ID:**	1703259-02
Project No:	CCR (53245)	**Alternate ID:**	S17088162A
Lab Order:	1703259	**Collection Date:**	03/29/17 10:38 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	0.0112	0.00500	0.0100		mg/L	1	04/06/17 12:47 PM
Dissolved Molybdenum	0.00775	0.00200	0.00500		mg/L	1	04/06/17 12:47 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	04/04/17 10:47 AM
Arsenic	0.0132	0.00200	0.00500		mg/L	1	04/04/17 10:47 AM
Barium	0.0514	0.00300	0.0100		mg/L	1	04/04/17 10:47 AM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 10:47 AM
Boron	1.20	0.200	0.600		mg/L	20	04/05/17 10:44 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 10:47 AM
Calcium	40.8	2.00	6.00		mg/L	20	04/05/17 10:44 AM
Chromium	0.00486	0.00200	0.00500	J	mg/L	1	04/04/17 10:47 AM
Cobalt	0.231	0.00300	0.00500		mg/L	1	04/04/17 10:47 AM
Lead	0.00478	0.000300	0.00100		mg/L	1	04/04/17 10:47 AM
Lithium	0.0109	0.00500	0.0100		mg/L	1	04/04/17 10:47 AM
Magnesium	8.01	0.100	0.300		mg/L	1	04/04/17 10:47 AM
Molybdenum	0.00814	0.00200	0.00500		mg/L	1	04/04/17 10:47 AM
Potassium	0.839	0.100	0.300		mg/L	1	04/04/17 10:47 AM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	04/04/17 10:47 AM
Sodium	171	2.00	6.00		mg/L	20	04/05/17 10:44 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	04/04/17 10:47 AM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	04/05/17 10:18 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	290	10.0	20.0		mg/L @ pH 4.52	1	04/03/17 10:24 AM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	04/03/17 10:24 AM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	04/03/17 10:24 AM
Alkalinity, Total (As CaCO3)	290	20.0	20.0		mg/L @ pH 4.52	1	04/03/17 10:24 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *07-Apr-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (53245)
Lab Order: 1703259

Client Sample ID: BV-5
Lab ID: 1703259-03
Alternate ID: S17088162B
Collection Date: 03/29/17 12:45 PM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	0.0207	0.00500	0.0100		mg/L	1	04/06/17 12:49 PM
Dissolved Molybdenum	0.00908	0.00200	0.00500		mg/L	1	04/06/17 12:49 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	04/04/17 10:49 AM
Arsenic	0.00856	0.00200	0.00500		mg/L	1	04/04/17 10:49 AM
Barium	0.0451	0.00300	0.0100		mg/L	1	04/04/17 10:49 AM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 10:49 AM
Boron	1.15	0.200	0.600		mg/L	20	04/05/17 10:46 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 10:49 AM
Calcium	90.5	2.00	6.00		mg/L	20	04/05/17 10:46 AM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	04/04/17 10:49 AM
Cobalt	0.0497	0.00300	0.00500		mg/L	1	04/04/17 10:49 AM
Lead	0.000929	0.000300	0.00100	J	mg/L	1	04/04/17 10:49 AM
Lithium	0.0206	0.00500	0.0100		mg/L	1	04/04/17 10:49 AM
Magnesium	18.7	0.100	0.300		mg/L	1	04/04/17 10:49 AM
Molybdenum	0.00925	0.00200	0.00500		mg/L	1	04/04/17 10:49 AM
Potassium	0.222	0.100	0.300	J	mg/L	1	04/04/17 10:49 AM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	04/04/17 10:49 AM
Sodium	181	2.00	6.00		mg/L	20	04/05/17 10:46 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	04/04/17 10:49 AM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	04/05/17 10:20 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	384	10.0	20.0		mg/L @ pH 4.53	1	04/03/17 10:38 AM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	04/03/17 10:38 AM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	04/03/17 10:38 AM
Alkalinity, Total (As CaCO3)	384	20.0	20.0		mg/L @ pH 4.53	1	04/03/17 10:38 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *07-Apr-17*

CLIENT:	B-Environmental	**Client Sample ID:**	BV-1
Project:	Coleto Creek Power	**Lab ID:**	1703259-04
Project No:	CCR (53245)	**Alternate ID:**	S17088162C
Lab Order:	1703259	**Collection Date:**	03/29/17 01:21 PM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	0.0162	0.00500	0.0100		mg/L	1	04/06/17 12:51 PM
Dissolved Molybdenum	0.00455	0.00200	0.00500	J	mg/L	1	04/06/17 12:51 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	04/04/17 10:51 AM
Arsenic	0.0109	0.00200	0.00500		mg/L	1	04/04/17 10:51 AM
Barium	0.0467	0.00300	0.0100		mg/L	1	04/04/17 10:51 AM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 10:51 AM
Boron	1.35	0.200	0.600		mg/L	20	04/05/17 10:48 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 10:51 AM
Calcium	64.8	2.00	6.00		mg/L	20	04/05/17 10:48 AM
Chromium	0.00939	0.00200	0.00500		mg/L	1	04/04/17 10:51 AM
Cobalt	0.404	0.00300	0.00500		mg/L	1	04/04/17 10:51 AM
Lead	0.00682	0.000300	0.00100		mg/L	1	04/04/17 10:51 AM
Lithium	0.0153	0.00500	0.0100		mg/L	1	04/04/17 10:51 AM
Magnesium	11.0	0.100	0.300		mg/L	1	04/04/17 10:51 AM
Molybdenum	0.00476	0.00200	0.00500	J	mg/L	1	04/04/17 10:51 AM
Potassium	0.601	0.100	0.300		mg/L	1	04/04/17 10:51 AM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	04/04/17 10:51 AM
Sodium	268	2.00	6.00		mg/L	20	04/05/17 10:48 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	04/04/17 10:51 AM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	04/05/17 10:22 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	392	10.0	20.0		mg/L @ pH 4.54	1	04/03/17 10:52 AM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.54	1	04/03/17 10:52 AM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.54	1	04/03/17 10:52 AM
Alkalinity, Total (As CaCO3)	392	20.0	20.0		mg/L @ pH 4.54	1	04/03/17 10:52 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *07-Apr-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (53245)
Lab Order: 1703259

Client Sample ID: MW-6
Lab ID: 1703259-05
Alternate ID: S17088162D
Collection Date: 03/29/17 02:16 PM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	0.00925	0.00500	0.0100	J	mg/L	1	04/06/17 12:37 PM
Dissolved Molybdenum	0.00693	0.00200	0.00500		mg/L	1	04/06/17 12:37 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	04/04/17 10:32 AM
Arsenic	0.00827	0.00200	0.00500		mg/L	1	04/04/17 10:32 AM
Barium	0.0900	0.00300	0.0100		mg/L	1	04/04/17 10:32 AM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 10:32 AM
Boron	1.67	0.100	0.300		mg/L	10	04/05/17 10:32 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 10:32 AM
Calcium	73.9	1.00	3.00		mg/L	10	04/05/17 10:32 AM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	04/04/17 10:32 AM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	04/04/17 10:32 AM
Lead	0.000996	0.000300	0.00100	J	mg/L	1	04/04/17 10:32 AM
Lithium	0.00981	0.00500	0.0100	J	mg/L	1	04/04/17 10:32 AM
Magnesium	9.29	0.100	0.300		mg/L	1	04/04/17 10:32 AM
Molybdenum	0.00749	0.00200	0.00500		mg/L	1	04/04/17 10:32 AM
Potassium	0.918	0.100	0.300		mg/L	1	04/04/17 10:32 AM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	04/04/17 10:32 AM
Sodium	71.6	1.00	3.00		mg/L	10	04/05/17 10:32 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	04/04/17 10:32 AM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	04/05/17 10:25 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	181	10.0	20.0		mg/L @ pH 4.51	1	04/03/17 10:59 AM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	04/03/17 10:59 AM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	04/03/17 10:59 AM
Alkalinity, Total (As CaCO3)	181	20.0	20.0		mg/L @ pH 4.51	1	04/03/17 10:59 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *07-Apr-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-7
Project:	Coleto Creek Power	**Lab ID:**	1703259-06
Project No:	CCR (53245)	**Alternate ID:**	S17088162E
Lab Order:	1703259	**Collection Date:**	03/29/17 03:01 PM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	0.00817	0.00500	0.0100	J	mg/L	1	04/06/17 12:52 PM
Dissolved Molybdenum	0.00754	0.00200	0.00500		mg/L	1	04/06/17 12:52 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	04/04/17 11:07 AM
Arsenic	0.00978	0.00200	0.00500		mg/L	1	04/04/17 11:07 AM
Barium	0.0951	0.00300	0.0100		mg/L	1	04/04/17 11:07 AM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 11:07 AM
Boron	0.925	0.200	0.600		mg/L	20	04/05/17 10:50 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 11:07 AM
Calcium	64.8	2.00	6.00		mg/L	20	04/05/17 10:50 AM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	04/04/17 11:07 AM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	04/04/17 11:07 AM
Lead	0.000698	0.000300	0.00100	J	mg/L	1	04/04/17 11:07 AM
Lithium	0.0105	0.00500	0.0100		mg/L	1	04/04/17 11:07 AM
Magnesium	10.2	0.100	0.300		mg/L	1	04/04/17 11:07 AM
Molybdenum	0.00993	0.00200	0.00500		mg/L	1	04/04/17 11:07 AM
Potassium	1.32	0.100	0.300		mg/L	1	04/04/17 11:07 AM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	04/04/17 11:07 AM
Sodium	115	2.00	6.00		mg/L	20	04/05/17 10:50 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	04/04/17 11:07 AM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	04/05/17 10:36 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	250	10.0	20.0		mg/L @ pH 4.53	1	04/03/17 11:15 AM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	04/03/17 11:15 AM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	04/03/17 11:15 AM
Alkalinity, Total (As CaCO3)	250	20.0	20.0		mg/L @ pH 4.53	1	04/03/17 11:15 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *07-Apr-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (53245)
Lab Order: 1703259

Client Sample ID: Dup
Lab ID: 1703259-07
Alternate ID: S17088162F
Collection Date: 03/29/17
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	0.0100	0.00500	0.0100		mg/L	1	04/06/17 12:54 PM
Dissolved Molybdenum	0.00956	0.00200	0.00500		mg/L	1	04/06/17 12:54 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	04/04/17 11:09 AM
Arsenic	0.00982	0.00200	0.00500		mg/L	1	04/04/17 11:09 AM
Barium	0.0956	0.00300	0.0100		mg/L	1	04/04/17 11:09 AM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 11:09 AM
Boron	0.922	0.200	0.600		mg/L	20	04/05/17 10:52 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 11:09 AM
Calcium	64.7	2.00	6.00		mg/L	20	04/05/17 10:52 AM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	04/04/17 11:09 AM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	04/04/17 11:09 AM
Lead	0.000636	0.000300	0.00100	J	mg/L	1	04/04/17 11:09 AM
Lithium	0.00993	0.00500	0.0100	J	mg/L	1	04/04/17 11:09 AM
Magnesium	10.2	0.100	0.300		mg/L	1	04/04/17 11:09 AM
Molybdenum	0.0100	0.00200	0.00500		mg/L	1	04/04/17 11:09 AM
Potassium	1.31	0.100	0.300		mg/L	1	04/04/17 11:09 AM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	04/04/17 11:09 AM
Sodium	115	2.00	6.00		mg/L	20	04/05/17 10:52 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	04/04/17 11:09 AM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	04/05/17 10:38 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	250	10.0	20.0		mg/L @ pH 4.52	1	04/03/17 11:25 AM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	04/03/17 11:25 AM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	04/03/17 11:25 AM
Alkalinity, Total (As CaCO3)	250	20.0	20.0		mg/L @ pH 4.52	1	04/03/17 11:25 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc. **Date:** *07-Apr-17*

CLIENT: B-Environmental
Work Order: 1703259
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_170405A

The QC data in batch 79830 applies to the following samples: 1703259-01A, 1703259-02A, 1703259-03A, 1703259-04A, 1703259-05A, 1703259-06A, 1703259-07A

Sample ID	MB-79830	Batch ID:	79830	TestNo:	SW7470A	Units:	mg/L
SampType:	MBLK	Run ID:	CETAC2_HG_170405A	Analysis Date:	4/5/2017 10:02:26 AM	Prep Date:	4/3/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.0000800	0.000200								

Sample ID	LCS-79830	Batch ID:	79830	TestNo:	SW7470A	Units:	mg/L
SampType:	LCS	Run ID:	CETAC2_HG_170405A	Analysis Date:	4/5/2017 10:06:58 AM	Prep Date:	4/3/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00208	0.000200	0.00200	0	104	85	115			

Sample ID	LCSD-79830	Batch ID:	79830	TestNo:	SW7470A	Units:	mg/L
SampType:	LCSD	Run ID:	CETAC2_HG_170405A	Analysis Date:	4/5/2017 10:09:15 AM	Prep Date:	4/3/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00192	0.000200	0.00200	0	96.0	85	115	8.00	15	

Sample ID	1703259-05A SD	Batch ID:	79830	TestNo:	SW7470A	Units:	mg/L
SampType:	SD	Run ID:	CETAC2_HG_170405A	Analysis Date:	4/5/2017 10:27:21 AM	Prep Date:	4/3/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.000400	0.00100	0	0				0	10	

Sample ID	1703259-05A PDS	Batch ID:	79830	TestNo:	SW7470A	Units:	mg/L
SampType:	PDS	Run ID:	CETAC2_HG_170405A	Analysis Date:	4/5/2017 10:29:37 AM	Prep Date:	4/3/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00209	0.000200	0.00250	0	83.6	85	115			S

Sample ID	1703259-05A MS	Batch ID:	79830	TestNo:	SW7470A	Units:	mg/L
SampType:	MS	Run ID:	CETAC2_HG_170405A	Analysis Date:	4/5/2017 10:31:53 AM	Prep Date:	4/3/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00170	0.000200	0.00200	0	85.0	80	120			

Sample ID	1703259-05A MSD	Batch ID:	79830	TestNo:	SW7470A	Units:	mg/L
SampType:	MSD	Run ID:	CETAC2_HG_170405A	Analysis Date:	4/5/2017 10:34:09 AM	Prep Date:	4/3/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00176	0.000200	0.00200	0	88.0	80	120	3.47	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1703259
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170404A

The QC data in batch 79805 applies to the following samples: 1703259-01A, 1703259-02A, 1703259-03A, 1703259-04A, 1703259-05A, 1703259-06A, 1703259-07A

Sample ID **MB-79805** Batch ID: **79805** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS4_170404A** Analysis Date: **4/4/2017 10:24:00 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.000800	0.00250								
Arsenic	<0.00200	0.00500								
Barium	<0.00300	0.0100								
Beryllium	<0.000300	0.00100								
Cadmium	<0.000300	0.00100								
Calcium	<0.100	0.300								
Chromium	<0.00200	0.00500								
Cobalt	<0.00300	0.00500								
Lead	<0.000300	0.00100								
Lithium	<0.00500	0.0100								
Magnesium	<0.100	0.300								
Molybdenum	<0.00200	0.00500								
Potassium	<0.100	0.300								
Selenium	<0.00200	0.00500								
Sodium	<0.100	0.300								
Thallium	<0.000500	0.00150								

Sample ID **LCS-79805** Batch ID: **79805** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS4_170404A** Analysis Date: **4/4/2017 10:26:00 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.192	0.00250	0.200	0	96.1	80	120			
Arsenic	0.198	0.00500	0.200	0	99.0	80	120			
Barium	0.197	0.0100	0.200	0	98.3	80	120			
Beryllium	0.203	0.00100	0.200	0	102	80	120			
Cadmium	0.200	0.00100	0.200	0	100	80	120			
Calcium	4.63	0.300	5.00	0	92.6	80	120			
Chromium	0.205	0.00500	0.200	0	102	80	120			
Cobalt	0.207	0.00500	0.200	0	104	80	120			
Lead	0.198	0.00100	0.200	0	99.1	80	120			
Lithium	0.200	0.0100	0.200	0	99.9	80	120			
Magnesium	4.94	0.300	5.00	0	98.8	80	120			
Molybdenum	0.193	0.00500	0.200	0	96.4	80	120			
Potassium	4.88	0.300	5.00	0	97.6	80	120			
Selenium	0.202	0.00500	0.200	0	101	80	120			
Sodium	4.98	0.300	5.00	0	99.5	80	120			
Thallium	0.197	0.00150	0.200	0	98.5	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1703259
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170404A

Sample ID LCSD-79805	Batch ID: 79805	TestNo: SW6020A	Units: mg/L
SampType: LCSD	Run ID: ICP-MS4_170404A	Analysis Date: 4/4/2017 10:28:00 AM	Prep Date: 4/3/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.194	0.00250	0.200	0	97.1	80	120	1.04	15	
Arsenic	0.199	0.00500	0.200	0	99.6	80	120	0.627	15	
Barium	0.200	0.0100	0.200	0	100	80	120	1.76	15	
Beryllium	0.210	0.00100	0.200	0	105	80	120	3.00	15	
Cadmium	0.203	0.00100	0.200	0	102	80	120	1.58	15	
Calcium	4.65	0.300	5.00	0	92.9	80	120	0.371	15	
Chromium	0.207	0.00500	0.200	0	103	80	120	0.840	15	
Cobalt	0.208	0.00500	0.200	0	104	80	120	0.154	15	
Lead	0.200	0.00100	0.200	0	100	80	120	1.06	15	
Lithium	0.206	0.0100	0.200	0	103	80	120	3.17	15	
Magnesium	5.00	0.300	5.00	0	100	80	120	1.28	15	
Molybdenum	0.197	0.00500	0.200	0	98.4	80	120	1.99	15	
Potassium	4.94	0.300	5.00	0	98.8	80	120	1.19	15	
Selenium	0.202	0.00500	0.200	0	101	80	120	0.072	15	
Sodium	4.99	0.300	5.00	0	99.7	80	120	0.204	15	
Thallium	0.199	0.00150	0.200	0	99.3	80	120	0.833	15	

Sample ID 1703259-05A SD	Batch ID: 79805	TestNo: SW6020A	Units: mg/L
SampType: SD	Run ID: ICP-MS4_170404A	Analysis Date: 4/4/2017 10:34:00 AM	Prep Date: 4/3/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.00400	0.0125	0	0				0	10	
Arsenic	<0.0100	0.0250	0	0.00827				0	10	
Barium	0.0897	0.0500	0	0.0900				0.327	10	
Beryllium	<0.00150	0.00500	0	0				0	10	
Cadmium	<0.00150	0.00500	0	0				0	10	
Chromium	<0.0100	0.0250	0	0				0	10	
Cobalt	<0.0150	0.0250	0	0				0	10	
Lead	<0.00150	0.00500	0	0.000996				0	10	
Lithium	<0.0250	0.0500	0	0.00981				0	10	
Magnesium	9.69	1.50	0	9.30				4.14	10	
Molybdenum	<0.0100	0.0250	0	0.00749				0	10	
Potassium	0.930	1.50	0	0.918				1.27	10	
Selenium	<0.0100	0.0250	0	0				0	10	
Thallium	<0.00250	0.00750	0	0				0	10	

Sample ID 1703259-05A PDS	Batch ID: 79805	TestNo: SW6020A	Units: mg/L
SampType: PDS	Run ID: ICP-MS4_170404A	Analysis Date: 4/4/2017 10:53:00 AM	Prep Date: 4/3/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.205	0.00250	0.200	0	102	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1703259
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170404A

Sample ID 1703259-05A PDS	Batch ID: 79805	TestNo: SW6020A	Units: mg/L
SampType: PDS	Run ID: ICP-MS4_170404A	Analysis Date: 4/4/2017 10:53:00 AM	Prep Date: 4/3/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.204	0.00500	0.200	0.00827	98.0	80	120			
Barium	0.292	0.0100	0.200	0.0900	101	80	120			
Beryllium	0.192	0.00100	0.200	0	95.9	80	120			
Cadmium	0.198	0.00100	0.200	0	98.9	80	120			
Chromium	0.203	0.00500	0.200	0	102	80	120			
Cobalt	0.204	0.00500	0.200	0	102	80	120			
Lead	0.201	0.00100	0.200	0.000996	100	80	120			
Lithium	0.200	0.0100	0.200	0.00981	95.3	80	120			
Magnesium	13.8	0.300	5.00	9.29	90.4	80	120			
Molybdenum	0.199	0.00500	0.200	0.00749	96.0	80	120			
Potassium	5.97	0.300	5.00	0.918	101	80	120			
Selenium	0.200	0.00500	0.200	0	99.9	80	120			
Thallium	0.197	0.00150	0.200	0	98.7	80	120			

Sample ID 1703259-05A MS	Batch ID: 79805	TestNo: SW6020A	Units: mg/L
SampType: MS	Run ID: ICP-MS4_170404A	Analysis Date: 4/4/2017 10:55:00 AM	Prep Date: 4/3/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.193	0.00250	0.200	0	96.4	80	120			
Arsenic	0.205	0.00500	0.200	0.00827	98.3	80	120			
Barium	0.288	0.0100	0.200	0.0900	98.9	80	120			
Beryllium	0.188	0.00100	0.200	0	94.1	80	120			
Cadmium	0.194	0.00100	0.200	0	97.2	80	120			
Calcium	77.2	0.300	5.00	73.8	67.5	80	120			S
Chromium	0.197	0.00500	0.200	0	98.5	80	120			
Cobalt	0.201	0.00500	0.200	0	101	80	120			
Lead	0.201	0.00100	0.200	0.000996	100	80	120			
Lithium	0.197	0.0100	0.200	0.00981	93.6	80	120			
Magnesium	13.9	0.300	5.00	9.29	91.6	80	120			
Molybdenum	0.199	0.00500	0.200	0.00749	95.9	80	120			
Potassium	5.84	0.300	5.00	0.918	98.5	80	120			
Selenium	0.203	0.00500	0.200	0	101	80	120			
Sodium	72.8	0.300	5.00	69.6	63.8	80	120			S
Thallium	0.199	0.00150	0.200	0	99.5	80	120			

Sample ID 1703259-05A MSD	Batch ID: 79805	TestNo: SW6020A	Units: mg/L
SampType: MSD	Run ID: ICP-MS4_170404A	Analysis Date: 4/4/2017 10:57:00 AM	Prep Date: 4/3/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.194	0.00250	0.200	0	97.2	80	120	0.870	15	
Arsenic	0.205	0.00500	0.200	0.00827	98.3	80	120	0.030	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1703259
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170404A

Sample ID **1703259-05A MSD** Batch ID: **79805** TestNo: **SW6020A** Units: **mg/L**
SampType: **MSD** Run ID: **ICP-MS4_170404A** Analysis Date: **4/4/2017 10:57:00 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.292	0.0100	0.200	0.0900	101	80	120	1.28	15	
Beryllium	0.189	0.00100	0.200	0	94.4	80	120	0.266	15	
Cadmium	0.196	0.00100	0.200	0	97.8	80	120	0.688	15	
Calcium	77.7	0.300	5.00	73.8	78.1	80	120	0.682	15	S
Chromium	0.197	0.00500	0.200	0	98.6	80	120	0.111	15	
Cobalt	0.201	0.00500	0.200	0	100	80	120	0.113	15	
Lead	0.203	0.00100	0.200	0.000996	101	80	120	0.632	15	
Lithium	0.195	0.0100	0.200	0.00981	92.8	80	120	0.755	15	
Magnesium	13.9	0.300	5.00	9.29	91.7	80	120	0.042	15	
Molybdenum	0.201	0.00500	0.200	0.00749	96.7	80	120	0.821	15	
Potassium	5.82	0.300	5.00	0.918	98.0	80	120	0.448	15	
Selenium	0.203	0.00500	0.200	0	101	80	120	0.150	15	
Sodium	72.5	0.300	5.00	69.6	56.5	80	120	0.499	15	S
Thallium	0.200	0.00150	0.200	0	100	80	120	0.520	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1703259
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170405A

The QC data in batch 79805 applies to the following samples: 1703259-01A, 1703259-02A, 1703259-03A, 1703259-04A, 1703259-05A, 1703259-06A, 1703259-07A

Sample ID	MB-79805	Batch ID:	79805	TestNo:	SW6020A	Units:	mg/L
SampType:	MBLK	Run ID:	ICP-MS4_170405A	Analysis Date:	4/5/2017 10:24:00 AM	Prep Date:	4/3/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	<0.0100	0.0300								

Sample ID	LCS-79805	Batch ID:	79805	TestNo:	SW6020A	Units:	mg/L
SampType:	LCS	Run ID:	ICP-MS4_170405A	Analysis Date:	4/5/2017 10:26:00 AM	Prep Date:	4/3/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.205	0.0300	0.200	0	102	80	120			

Sample ID	LCSD-79805	Batch ID:	79805	TestNo:	SW6020A	Units:	mg/L
SampType:	LCSD	Run ID:	ICP-MS4_170405A	Analysis Date:	4/5/2017 10:28:00 AM	Prep Date:	4/3/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.206	0.0300	0.200	0	103	80	120	0.589	15	

Sample ID	1703259-05A SD	Batch ID:	79805	TestNo:	SW6020A	Units:	mg/L
SampType:	SD	Run ID:	ICP-MS4_170405A	Analysis Date:	4/5/2017 10:34:00 AM	Prep Date:	4/3/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	1.73	1.50	0	1.67				3.63	10	
Calcium	75.3	15.0	0	73.9				1.92	10	
Sodium	74.3	15.0	0	71.6				3.69	10	

Sample ID	1703259-05A PDS	Batch ID:	79805	TestNo:	SW6020A	Units:	mg/L
SampType:	PDS	Run ID:	ICP-MS4_170405A	Analysis Date:	4/5/2017 10:54:00 AM	Prep Date:	4/3/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	3.88	0.300	2.00	1.67	110	80	120			
Calcium	124	3.00	50.0	73.9	100	80	120			
Sodium	127	3.00	50.0	71.6	111	80	120			

Sample ID	1703259-05A MS	Batch ID:	79805	TestNo:	SW6020A	Units:	mg/L
SampType:	MS	Run ID:	ICP-MS4_170405A	Analysis Date:	4/5/2017 10:56:00 AM	Prep Date:	4/3/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	1.94	0.300	0.200	1.67	137	80	120			S

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1703259
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170405A

Sample ID	**1703259-05A MSD**	Batch ID:	**79805**	TestNo:	**SW6020A**	Units:	**mg/L**
SampType:	**MSD**	Run ID:	**ICP-MS4_170405A**	Analysis Date:	**4/5/2017 10:58:00 AM**	Prep Date:	**4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	1.91	0.300	0.200	1.67	123	80	120	1.50	15	S

Qualifiers:

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL
DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1703259
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170406B

The QC data in batch 79865 applies to the following samples: 1703259-01B, 1703259-02B, 1703259-03B, 1703259-04B, 1703259-05B, 1703259-06B, 1703259-07B

Sample ID **MB-79865** Batch ID: **79865** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS5_170406B** Analysis Date: **4/6/2017 12:30:00 PM** Prep Date: **4/5/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.00500	0.0100								
Molybdenum	<0.00200	0.00500								

Sample ID **LCS-79865** Batch ID: **79865** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS5_170406B** Analysis Date: **4/6/2017 12:31:00 PM** Prep Date: **4/5/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.200	0.0100	0.200	0	100	80	120			
Molybdenum	0.190	0.00500	0.200	0	94.8	80	120			

Sample ID **LCSD-79865** Batch ID: **79865** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS5_170406B** Analysis Date: **4/6/2017 12:33:00 PM** Prep Date: **4/5/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.206	0.0100	0.200	0	103	80	120	3.04	15	
Molybdenum	0.193	0.00500	0.200	0	96.5	80	120	1.82	15	

Sample ID **1703259-05B SD** Batch ID: **79865** TestNo: **SW6020A** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS5_170406B** Analysis Date: **4/6/2017 12:38:00 PM** Prep Date: **4/5/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.0250	0.0500	0	0.00925				0	10	
Molybdenum	<0.0100	0.0250	0	0.00693				0	10	

Sample ID **1703259-05B PDS** Batch ID: **79865** TestNo: **SW6020A** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS5_170406B** Analysis Date: **4/6/2017 12:56:00 PM** Prep Date: **4/5/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.202	0.0100	0.200	0.00925	96.4	80	120			
Molybdenum	0.193	0.00500	0.200	0.00693	92.9	80	120			

Sample ID **1703259-05B MS** Batch ID: **79865** TestNo: **SW6020A** Units: **mg/L**
SampType: **MS** Run ID: **ICP-MS5_170406B** Analysis Date: **4/6/2017 12:58:00 PM** Prep Date: **4/5/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Lithium	0.205	0.0100	0.200	0.00925	97.8	80	120			
Dissolved Molybdenum	0.198	0.00500	0.200	0.00693	95.4	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1703259
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170406B

Sample ID **1703259-05B MSD**	Batch ID: **79865**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **MSD**	Run ID: **ICP-MS5_170406B**	Analysis Date: **4/6/2017 12:59:00 PM**	Prep Date: **4/5/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Lithium	0.197	0.0100	0.200	0.00925	93.8	80	120	3.99	15	
Dissolved Molybdenum	0.198	0.00500	0.200	0.00693	95.3	80	120	0.079	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1703259
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_170403A

The QC data in batch 79803 applies to the following samples: 1703259-01C, 1703259-02C, 1703259-03C, 1703259-04C, 1703259-05C, 1703259-06C, 1703259-07C

Sample ID **MB-79803** Batch ID: **79803** TestNo: **M2320 B** Units: **mg/L @ pH 4.34**
SampType: **MBLK** Run ID: **TITRATOR_170403A** Analysis Date: **4/3/2017 9:09:00 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0								
Alkalinity, Total (As CaCO3)	<20.0	20.0								

Sample ID **LCS-79803** Batch ID: **79803** TestNo: **M2320 B** Units: **mg/L @ pH 4.22**
SampType: **LCS** Run ID: **TITRATOR_170403A** Analysis Date: **4/3/2017 9:13:00 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	50.2	20.0	50.00	0	100	74	129			

Sample ID **1703258-01C-DUP** Batch ID: **79803** TestNo: **M2320 B** Units: **mg/L @ pH 4.5**
SampType: **DUP** Run ID: **TITRATOR_170403A** Analysis Date: **4/3/2017 10:04:00 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	111	20.0	0	113.7				2.76	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	111	20.0	0	113.7				2.76	20	

Sample ID **1703259-05C-DUP** Batch ID: **79803** TestNo: **M2320 B** Units: **mg/L @ pH 4.52**
SampType: **DUP** Run ID: **TITRATOR_170403A** Analysis Date: **4/3/2017 11:06:00 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	180	20.0	0	181.2				0.720	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	180	20.0	0	181.2				0.720	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-00842
Client Sample ID: S170881623 (BATCH 53245)
Sample Collection Date: 03/29/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-00842-001
Date Received: 04/03/17
Report Date: 04/28/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.299	0.159	0.162	0.060	NP	B	pCi/L	ARS-010/EPA 903.0/904.0	04/17/17 9:40	SCAUSEY	92%
Ra-228	0.688	0.736	1.206	0.559	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	04/10/17 12:44	SCAUSEY	85%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-00842
Client Sample ID: S17088162A (BATCH 53245)
Sample Collection Date: 03/29/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-00842-002
Date Received: 04/03/17
Report Date: 04/28/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.566	0.203	0.143	0.053	NP	B	pCi/L	ARS-010/EPA 903.0/904.0	04/17/17 9:40	SCAUSEY	97%
Ra-228	0.405	0.614	1.039	0.481	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	04/10/17 12:44	SCAUSEY	95%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-00842
Client Sample ID: S17088162B (BATCH 53245)
Sample Collection Date: 03/29/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-00842-003
Date Received: 04/03/17
Report Date: 04/28/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.272	0.159	0.174	0.064	NP	B	pCi/L	ARS-010/EPA 903.0/904.0	04/17/17 9:40	SCAUSEY	80%
Ra-228	1.231	0.891	1.377	0.638	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	04/10/17 12:44	SCAUSEY	74%

Project Manager Review

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-00842
Client Sample ID: S17088162C (BATCH 53245)
Sample Collection Date: 03/29/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-00842-004
Date Received: 04/03/17
Report Date: 04/28/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.251	0.151	0.190	0.077	NP	B	pCi/L	ARS-010/EPA 903.0/904.0	04/17/17 9:40	SCAUSEY	93%
Ra-228	0.770	0.781	1.273	0.593	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	04/10/17 12:44	SCAUSEY	85%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-00842
Client Sample ID: S17088162D (BATCH 53245)
Sample Collection Date: 03/29/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-00842-005
Date Received: 04/03/17
Report Date: 04/28/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.296	0.155	0.164	0.063	NP	B	pCi/L	ARS-010/EPA 903.0/904.0	04/17/17 9:40	SCAUSEY	98%
Ra-228	0.713	0.732	1.194	0.554	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	04/10/17 12:43	SCAUSEY	87%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-00839
Client Sample ID: S17088162E (BATCH 53245)
Sample Collection Date: 03/29/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-00839-001
Date Received: 03/31/17
Report Date: 04/28/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.318	0.141	0.125	0.046	NP		pCi/L	ARS-010/EPA 903.0/904.0	04/17/17 7:34	SCAUSEY	102%
Ra-228	0.520	0.645	1.074	0.497	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	04/07/17 13:23	SCAUSEY	99%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-00839
Client Sample ID: S17088162F (BATCH 53245)
Sample Collection Date: 03/29/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-00839-002
Date Received: 03/31/17
Report Date: 04/28/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.540	0.193	0.133	0.049	NP		pCi/L	ARS-010/EPA 903.0/904.0	04/17/17 7:34	SCAUSEY	94%
Ra-228	0.958	0.770	1.214	0.562	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	04/07/17 13:23	SCAUSEY	92%

Project Manager Review

LELAP Certificate# 01949

INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

QC Results Report

Sample Delivery Group: ARS1-17-00825;839;840

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-00590	LCS	RA-226	23.519	3.793	0.080	27.623	N/A	pCi/L	ARS-010/EPA 903	4/17/17 7:34	SC	85	75%-125%
ARS1-B17-00590	LCS	RA-228	34.549	5.771	1.052	39.784	N/A	pCi/L	ARS-010/EPA 904	4/17/17 7:34	SC	87	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-00590	MBL	RA-226	0.018	0.044	0.082	NA	U	pCi/L	ARS-010/EPA 903	4/17/17 7:34	SC
ARS1-B17-00590	MBL	RA-228	-0.034	0.340	0.618	NA	U	pCi/L	ARS-010/EPA 904	4/17/17 7:34	SC

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-00590	LCSD	RA-226	23.519	3.793	26.740	4.308	N/A	pCi/L	ARS-010/EPA 903	4/17/17 7:34	SC	0.40	< 1
ARS1-B17-00590	LCSD	RA-228	34.549	5.771	36.569	6.096	N/A	pCi/L	ARS-010/EPA 904	4/17/17 7:34	SC	0.17	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-00590	LCSD	RA-226	23.519	3.793	26.740	4.308	N/A	pCi/L	ARS-010/EPA 903	4/17/17 7:34	SC	1.12	< 3
ARS1-B17-00590	LCSD	RA-228	34.549	5.771	36.569	6.096	N/A	pCi/L	ARS-010/EPA 904	4/17/17 7:34	SC	0.48	< 3

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

Batch # 53245

INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

QC Results Report

Sample Delivery Group: ARS1-17-00842

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1(2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-00603	LCS	Ra-226	23.353	3.775	0.089	27.583	N/A	pCi/L	ARS-010/EPA 903	4/17/17 9:40	SC	85	75%-125%
ARS1-B17-00603	LCS	Ra-228	35.649	5.940	1.038	39.784	N/A	pCi/L	ARS-010/EPA 904	4/17/17 9:40	SC	90	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1(2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-00603	MBL	Ra-226	0.355	0.123	0.091	NA		pCi/L	ARS-010/EPA 903	4/17/17 9:40	SC
ARS1-B17-00603	MBL	Ra-228	0.327	0.385	0.637	NA	U	pCi/L	ARS-010/EPA 904	4/17/17 9:40	SC

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1(2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-00603	LCSD	Ra-226	23.353	3.775	23.951	3.875	N/A	pCi/L	ARS-010/EPA 903	4/17/17 9:40	SC	0.08	< 1
ARS1-B17-00603	LCSD	Ra-228	35.649	5.940	34.642	5.774	N/A	pCi/L	ARS-010/EPA 904	4/17/17 9:40	SC	0.09	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1(2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-00603	LCSD	Ra-226	23.353	3.775	23.951	3.875	N/A	pCi/L	ARS-010/EPA 903	4/17/17 9:40	SC	0.22	< 3
ARS1-B17-00603	LCSD	Ra-228	35.649	5.940	34.642	5.774	N/A	pCi/L	ARS-010/EPA 904	4/17/17 9:40	SC	0.24	< 3

Matrix Spike

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1(2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery(%)	MS Acceptance Range
ARS1-B17-00603	MS	Ra-226	28.495	4.607	0.091	27.147	N/A	pCi/L	ARS-010/EPA 903	4/17/17 9:40	SC	105	60%-140%
ARS1-B17-00603	MSD	Ra-226	28.182	4.538	0.070	27.605	N/A	pCi/L	ARS-010/EPA 903	4/17/17 9:40	SC	102	60%-140%
ARS1-B17-00603	MS	Ra-228	25.252	4.236	0.705	26.501	N/A	pCi/L	ARS-010/EPA 904	4/17/17 9:40	SC	95	60%-140%
ARS1-B17-00603	MSD	Ra-228	27.091	4.489	0.748	26.949	N/A	pCi/L	ARS-010/EPA 904	4/17/17 9:40	SC	101	60%-140%

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

2609 North River Road • Port Allen, Louisiana 70767
1 (800) 401-4277 • Fax (225) 381-2996

Notes (Case Narrative):

Comments:

1.0) All MDA/MDC values are calculated on a sample specific basis.
2.0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.
3.0) Data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.
4.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix. Modified analyses are indicated by the subsequent addition of "m" to the procedure number (i.e. 900.0M).
5.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than the actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
6.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228 (Gamma Spectroscopy only).
7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234 (Gamma Spectroscopy only).
8.0) All gamma spectroscopy was performed utilizing high purity germanium detectors (**HPGe**).
9.0) ARS makes every attempt to match sample density to calibrated density; however, in some cases, it is not practical or possible to do so and data results may be affected (Gamma Spectroscopy only).
10.0) Gamma spectroscopy results are calculated values based on the **ORTEC®** GammaVision ENV32 Analysis Engine.
11.0) ACLASS DOD and ISO 17025 certification applies only to the following analytes and methods: Gross Alpha and Gross Beta (EPA 900, SM7110B&C, SW846 9310); Radium 226 (EPA 903, EPA 903.1, SM 7500 Ra-B, SW846 9315); Radium 228 (EPA 904, SM 7500 Ra-B SW846 9320); Iodine-131(EPA 901.1); Uranium by ICPMS (EPA 200.8); Strontium 89/90 (EPA 905, Eichrom SRW01, HASL 300 Sr-03-RC); Tritium (EPA 906, EPA 906M); Gamma Emitters (EPA 901.1, SM7120B, HASL 300 Ga-01-R); Americium-241, Curium 242/244, Plutonium 239/240 and 241, Thorium 228/230/232, Uranium 234/233 and 238 (Eichrom ACW03 VBS); Lead 210 (HASL 300 Pb-01-RC, Eichrom OTW01); Polonium 210 (HASL 300 Po-01-RC, HASL 300 Po-02-RC); Technetium-99 (Eichrom TCW02, Eichrom TCS01M).

Method References:

1.0) **EPA 600/4-80-032**; Prescribed Procedures for the Measurements of Radioactivity in Drinking Water, August 1980.
2.0) **Standard Methods for the Examination of Water and Wastewater** (On-Line Edition)
3.0) **EPA SW-846**; Test Methods for Evaluating Solid Waste, (On-Line edition)
4.0) **EPA 600/4/79-020**; Methods for Chemical Analysis of Water and Waste, March 1983.
5.0) **HASL 300**; The Procedures Manual of the Environmental Measurements Laboratory, Volume I, 28th Edition February, 1997.

Definitions:

CRDL Contract Required Detection Limit
CSU Combined Standard Uncertainty
DLC Decision Level Concentration (ANSI N42.23) or critical level
DO Duplicate Original
DUP Method Duplicate
LCS/LCSD Laboratory Control Sample/Laboratory Control Sample Duplicate
MDA Minimum Detectable Activity
MDC (Minimum Detectable Concentration) minimum concentration of the analyte that ARS can detect utilizing the specific analysis
MBL Method Blank
MS/MSD Matrix Spike/Matrix Spike Duplicate
N/A Not Applicable
NP Not Provided
NR Not Referenced
LOD Limit of Detection
LOQ Limit of Quantitation

Data Qualifiers:

B The analyte is found in both the associated method blank and the sample. This flag indicates probable blank contamination.
D Sample analysis accomplished through dilution.
J The reported result is an estimated value above the limit of detection but outside of quantitation range (e.g., matrix interference was observed).
Q One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).
U Activity is below the MDC, MDA, MDL, or LOD
N The analyte is a tentatively identified compound using mass spectrometry or any non-customer requested compounds that are tentatively identified.
***** LCS/LCSD or MS/MSD fails RPD criteria.
S Spike
SC Subcontracted out to another qualified laboratory
H Holding time exceeded

ARS INTERNATIONAL
2609 North River Road • Port Allen, Louisiana 70767
1 (800) 401-4277 • Fax (225) 381-2996

Notes (Case Narrative):

Comments:

1.0) All MDA/MDC values are calculated on a sample specific basis.
2.0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.
3.0) Data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.
4.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix. Modified analyses are indicated by the subsequent addition of "m" to the procedure number (i.e. 900.0M).
5.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than the actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
6.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228 (Gamma Spectroscopy only).
7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234 (Gamma Spectroscopy only).
8.0) All gamma spectroscopy was performed utilizing high purity germanium detectors (**HPGe**).
9.0) ARS makes every attempt to match sample density to calibrated density; however, in some cases, it is not practical or possible to do so and data results may be affected (Gamma Spectroscopy only).
10.0) Gamma spectroscopy results are calculated values based on the **ORTEC®** GammaVision ENV32 Analysis Engine.
11.0) ACLASS DOD and ISO 17025 certification applies only to the following analytes and methods: Gross Alpha and Gross Beta (EPA 900, SM7110B&C, SW846 9310); Radium 226 (EPA 903, EPA 903.1, SM 7500 Ra-B, SW846 9315); Radium 228 (EPA 904, SM 7500 Ra-B SW846 9320); Iodine-131(EPA 901.1); Uranium by ICPMS (EPA 200.8); Strontium 89/90 (EPA 905, Eichrom SRW01, HASL 300 Sr-03-RC); Tritium (EPA 906, EPA 906M); Gamma Emitters (EPA 901.1, SM7120B, HASL 300 Ga-01-R); Americium-241, Curium 242/244, Plutonium 239/240 and 241, Thorium 228/230/232, Uranium 234/233 and 238 (Eichrom ACW03 VBS); Lead 210 (HASL 300 Pb-01-RC, Eichrom OTW01); Polonium 210 (HASL 300 Po-01-RC, HASL 300 Po-02-RC); Technetium-99 (Eichrom TCW02, Eichrom TCS01M).

Method References:

1.0) **EPA 600/4-80-032**; Prescribed Procedures for the Measurements of Radioactivity in Drinking Water, August 1980.
2.0) **Standard Methods for the Examination of Water and Wastewater** (On-Line Edition)
3.0) **EPA SW-846**; Test Methods for Evaluating Solid Waste, (On-Line edition)
4.0) **EPA 600/4/79-020**; Methods for Chemical Analysis of Water and Waste, March 1983.
5.0) **HASL 300**; The Procedures Manual of the Environmental Measurements Laboratory, Volume I, 28th Edition February, 1997.

Definitions:

CRDL	Contract Required Detection Limit
CSU	Combined Standard Uncertainty
DLC	Decision Level Concentration (ANSI N42.23) or critical level
DO	Duplicate Original
DUP	Method Duplicate
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
MDA	Minimum Detectable Activity
MDC	(Minimum Detectable Concentration) minimum concentration of the analyte that ARS can detect utilizing the specific analysis
MBL	Method Blank
MS/MSD	Matrix Spike/Matrix Spike Duplicate
N/A	Not Applicable
NP	Not Provided
NR	Not Referenced
LOD	Limit of Detection
LOQ	Limit of Quantitation

Data Qualifiers:

B	The analyte is found in both the associated method blank and the sample. This flag indicates probable blank contamination.
D	Sample analysis accomplished through dilution.
J	The reported result is an estimated value above the limit of detection but outside of quantitation range (e.g., matrix interference was observed).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).
U	Activity is below the MDC, MDA, MDL, or LOD
N	The analyte is a tentatively identified compound using mass spectrometry or any non-customer requested compounds that are tentatively identified.
*	LCS/LCSD or MS/MSD fails RPD criteria.
S	Spike
SC	Subcontracted out to another qualified laboratory
H	Holding time exceeded

LELAP Cert# 01949 ***NELAP Cert# E87558***

ARS-059-010
Revision: 9.1
Revision Date: 03-14-2017

B - Environmental

Chain of Custody Record

Batch # 53245 | TEMP UN-C: 17.4 | Page 1 of 2
THERM ID# 3 | TEMP Corr: 17.0

Customer / Report Information
Name: Coleto Creek Power
Attention: Rick Coleman
Address:

Billing Information [X] Check box if Billing is the same as Report Information
Address:
Attention: PO#:
Project: CCR Sampling
Comments:

Phone: 361-788-5145 FAX:
EMAIL: Richard.coleman@dynegy.com

Requested Analysis: D A A C F B E
Completed By Laboratory

Sample Information
Collected By:

Matrix: DW - Drinking H20, S - Solid, WW - Waste H20, SL - Sludge, L - Liquid, W - Water
C=Composite, G=Grab

Client / Field Sample ID	Collected Date	Collected Time	G/C	Matrix	Container Type	Number	Size	Preservative	Metals*	Cl, F*, SO4	pH	TDS	Ra 226+228	Alk: Tot, Carb, Bicarb	Diss. Li+Mo	LAB Sample Number
BV-19	3-29-17	956	G	W	P	4	1L / 500 / 250	HNO3, ICE	X	X	X	X	X	X	X	S170881623
BV-10	3-29-17	1038						HNO3, ICE	X	X	X	X	X	X	X	S17088162A
BV-5	3-29-17	1245						HNO3, ICE	X	X	X	X	X	X	X	S17088162B
BV-1	3-29-17	1321						HNO3, ICE	X	X	X	X	X	X	X	S17088162C
MW-6	3-29-17	1416						HNO3, ICE	X	X	X	X	X	X	X	S17088162D
MW-6 MS	3-29-17	1416						HNO3, ICE	X	X	X	X	X	X	X	
MW-6 MSD	3-29-17	1416						HNO3, ICE	X	X	X	X	X	X	X	

Preservative options: H2SO4, H3PO4, ICE, HNO3, NaOH, HCL, Na2SO3

Custody Seals Present: Yes ☐ No ☐
Intact: Yes ☐ No ☐

Required Turnaround: [X] Routine (6-10 Business Days) Expedite / Rush: ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business Days ☐ 5 Business Days ☐ Other ________ REMARKS:

Surcharge will apply to RUSH TAT Authorized By:
Container Type: P=Plastic, G=Glass, V=VOA, O=Other Carrier ID:

Relinquished By	Date	Time	Received By	Date	Time
[signature]	3-29-17	1535	Eddie Fisk	3/29/17	1535
Eddie Fisk	3/29/17	1620	Lori Valrento	3/29/17	1620

Fluoride: 0.25 mg/L; Metals: B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, ~~Se, Tl~~, Mg, K, Na, & Hg

B - Environmental

Chain of Custody Record

Batch #		TEMP UN-C: 17.4	Page 2 of 2
THERM ID# 3		TEMP Corr: 17.0	

Customer / Report Information

Name: Coleto Creek Power
Attention: Rick Coleman
Address:

Billing Information ☒ Check box if Billing is the same as Report Information

Address:
Attention: PO#:
Project: CCR Sampling
Comments:

Phone: 361-788-5145 FAX:
EMAIL: Richard.coleman@dynegy.com

Requested Analysis: D A A C F B E — Completed By Laboratory

Sample Information

Collected By:

Client / Field Sample ID	Collected Date	Collected Time	G=Grab C=Composite	Matrix (DW - Drinking H20, S - Solid, WW - Waste H20, SL - Sludge, L - Liquid, W - Water)	Container TYPE	Container NUMBER	Container SIZE	Preservative	Metals*	Cl, F*, SO4	pH	TDS	Ra 226+228	Alk: Tot, Carb, Bi Carb	Diss. Li+Mo		LAB Sample Number
mw-7	3-29-17	1501	G	W	P	4	1L / 500 / 250	☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ ____ ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X		S17088162E
Dup	3-29-17							☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ ____ ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X		S17088162F
								☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ ____ ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X		
								☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ ____ ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X		
								☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ ____ ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X		
								☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ ____ ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X		
								☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ ____ ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X		

Custody Seals Present: Yes ☐ No ☐
Intact: Yes ☐ No ☐

Required Turnaround: ☒ Routine (6-10 Business Days) Expedite / Rush: ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business Days ☐ 5 Business Days ☐ Other ______ REMARKS:

Surcharge will apply to RUSH TAT Authorized By:

Container Type: P=Plastic, G=Glass, V=VOA, O=Other Carrier ID :

Relinquished By:	[signature]	Date:	3-29-17	Time:	1535	Received By:	Eddie Fil [signature]	Date: 3/29/17	Time: 1535
Relinquished By:	Eddie Fil [signature]	Date:	3/29/17	Time:	1620	Received By:	Lori Valmund [signature]	Date: 3/29/17	Time: 1620
Relinquished By:		Date:		Time:		Received By:		Date:	Time:

Fluoride: 0.25 mg/L; Metals*: B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, Mg, K, Na, + Hg

Batch # 53304

BatchNo: 53304

SAMPLE REPORT

T104704328-17-14

Business

Coleto Creek Power - R Coleman
PO Box 8
Fannin TX 77960
Att: Rick Coleman

Laboratory

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901
ph. 361-572-8224

Reference Information

Project: CCR Sampling

Printed: Monday, May 01, 2017

Re: Coleto Creek Power - R Coleman

Dear: Rick Coleman

Attached are the results for sample(s) received on 3/30/2017

The analytical results relate only to the samples tested.
All supporting quality data meets the requirements of NELAC unless noted in the case narrative section of the report.

This report contains 36 pages (including the cover page)

If you have any questions concerning this report, please do not hesitate to call (361) 572-8224 or Fax us at (361) 572-4115

Respectfully Submitted,

Kevin Baros

Laboratory Director

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 53304

Batch No: 53304

Sample Receipt Checklist

Date Received: 3/30/2017

Project: CCR Sampling

Received By: Vahrenkamp

Login completed by: Vahrenkamp 3/30/2017

Signature LoginDate:

Carrier Name: Walk In

Shipping container/cooler in good condition?	☑ YES	☐ NO	☐ Not Present
Custody seals intact on shipping container/cooler?	☐ YES	☐ NO	☑ Not Present
Custody seals intact on sample bottles?	☐ YES	☐ NO	☑ Not Present
Chain of Custody present?	☑ YES	☐ NO	
Chain of Custody signed when relinquished and received	☑ YES	☐ NO	
Chain of Custody agrees with sample labels?	☑ YES	☐ NO	
Samples in proper container/bottles?	☑ YES	☐ NO	
Sample containers intact?	☑ YES	☐ NO	
Sufficient sample volume for indicated tests?	☑ YES	☐ NO	
All samples received within holding times?	☑ YES	☐ NO	
Container/Temp Blank - temperature in compliance?	☑ YES	☐ NO	>0 <6 °C On Ice
Water - VOA vials have zero headspace? Bubble < 6mm?	☐ YES	☐ NO	☑ No VOA Vials submitted
Water - pH acceptable upon receipt?	☑ YES	☐ NO	☐ Not Applicable

***TEMP** 2.6/2.2 pH Adjusted? No Checked By L. Vahrenkamp

Any No and/or N/A (not applicable) response must be detailed in the comments section below.

Client contacted PersonContacted

Contacted by: Date Contacted:

Regarding

Comments

Therm #3. HNO3 Lot # 2-42-12. pH Paper Lot # 2-25-6.

Corrective Action

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 53304

Sample Report Information

Sample ID: S170891624 **Client ID:** MW 10 **Sampler:** Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #10
Notes:

Batch No: 53304
Sampled: 3/30/2017 1:45 PM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed		LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	151	mg/L	EPA 300	K Baros	3/31/2017	3:39	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	307	mg/L	SM 2320 B		4/3/2017	11:41	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		4/3/2017	11:41	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	307	mg/L	SM 2320 B		4/3/2017	11:41	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.54	mg/L	EPA 300	K Baros	3/31/2017	3:39	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.28	SU	SM 4500-H+B	P Ryan	3/30/2017	16:55					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	804	mg/L	SM2540C	C Watts	4/3/2017	16:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			4/4/2017	11:11					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	130	mg/L	EPA 300	K Baros	3/31/2017	3:39	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			4/17/2017	7:34					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 53304

Sample Report Information

Sample ID: S17089162A **Client ID:** MW 10A **Sampler:** Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW 10A
Notes:

Batch No: 53304
Sampled: 3/30/2017 1:13 PM

Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed		LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	332	mg/L	EPA 300	K Baros	3/31/2017	6:49	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	324	mg/L	SM 2320 B		4/3/2017	11:54	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		4/3/2017	11:54	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	324	mg/L	SM 2320 B		4/3/2017	11:54	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.47	mg/L	EPA 300	K Baros	3/31/2017	6:49	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.03	SU	SM 4500-H+B	P Ryan	3/30/2017	16:55					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	1088	mg/L	SM2540C	C Watts	4/5/2017	9:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			4/4/2017	11:13					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	83	mg/L	EPA 300	K Baros	3/31/2017	6:49	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			4/17/2017	7:34					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 53304

Sample Report Information

Sample ID: S17089162B **Client ID:** PS 3 **Sampler:** Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: PS 3
Notes:

Batch No: 53304
Sampled: 3/30/2017 8:36 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	48	mg/L	EPA 300	K Baros	3/31/2017 5:33	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	**169**	**mg/L**	**SM 2320 B**		**4/3/2017 12:01**	10	10			☑	**DHL Cert No. T104704211-12-8**
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		4/3/2017 12:01	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	**169**	**mg/L**	**SM 2320 B**		**4/3/2017 12:01**	10	10			☑	**DHL Cert No. T104704211-12-8**
Fluoride, IC	0.89	mg/L	EPA 300	K Baros	3/31/2017 5:33	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	**7.64**	**SU**	**SM 4500-H+B**	**P Ryan**	**3/30/2017 16:55**					☐	**B- E Cert. # T104704328-17-14**
Solids, Total Dissolved	352	mg/L	SM2540C	C Watts	4/5/2017 9:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	**C**	**#**			**4/4/2017 11:15**					☑	**DHL Cert No. T104704211-12-8**
Sulfate, IC	32	mg/L	EPA 300	K Baros	3/31/2017 5:33	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	**C**	**#**			**4/17/2017 7:34**					☑	**ARS International**

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 53304

Sample Report Information

Sample ID: S17089162C **Client ID:** MW 9 **Sampler:** Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #9
Notes:

Batch No: 53304
Sampled: 3/30/2017 9:45 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed		LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	71	mg/L	EPA 300	K Baros	3/31/2017	4:55	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	139	mg/L	SM 2320 B		4/3/2017	12:06	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		4/3/2017	12:06	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	139	mg/L	SM 2320 B		4/3/2017	12:06	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	1.13	mg/L	EPA 300	K Baros	3/31/2017	4:55	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.24	SU	SM 4500-H+B	P Ryan	3/30/2017	16:55					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	406	mg/L	SM2540C	C Watts	4/5/2017	9:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			4/4/2017	11:17					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	62	mg/L	EPA 300	K Baros	3/31/2017	4:55	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			4/17/2017	7:34					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 53304

Sample Report Information

Sample ID: S17089162D **Client ID:** MW 9A **Sampler:** Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW 9A
Notes:

Batch No: 53304
Sampled: 3/30/2017 9:13 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed		LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	67	mg/L	EPA 300	K Baros	3/31/2017	6:11	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	136	mg/L	SM 2320 B		4/3/2017	12:11	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		4/3/2017	12:11	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	136	mg/L	SM 2320 B		4/3/2017	12:11	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	1.19	mg/L	EPA 300	K Baros	3/31/2017	6:11	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.47	SU	SM 4500-H+B	P Ryan	3/30/2017	16:55					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	400	mg/L	SM2540C	C Watts	4/5/2017	9:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			4/4/2017	11:19					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	63	mg/L	EPA 300	K Baros	3/31/2017	6:11	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			4/17/2017	7:34					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 53304

Sample Report Information

Sample ID: S17089162E **Client ID:** MW 5 **Sampler:** Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #5
Notes:

Batch No: 53304
Sampled: 3/30/2017 10:58 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed		LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	140	mg/L	EPA 300	K Baros	3/31/2017	3:01	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	286	mg/L	SM 2320 B		4/3/2017	12:23	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		4/3/2017	12:23	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	286	mg/L	SM 2320 B		4/3/2017	12:23	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.51	mg/L	EPA 300	K Baros	3/31/2017	3:01	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.25	SU	SM 4500-H+B	P Ryan	3/30/2017	16:55					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	830	mg/L	SM2540C	C Watts	4/5/2017	9:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			4/4/2017	11:21					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	184	mg/L	EPA 300	K Baros	3/31/2017	3:01	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			4/17/2017	7:34					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 53304

QA Summary Report

Parameter	ID	Result	Ref Value	Amt Added	LOQ	Qualifer	Control	Flag	Comments
Method Blank									
.- Chloride, IC 3/30/2017 14:56	Q170941254	<1mg/L	0		1		1		Blank Acceptable.
Fluoride, IC 3/30/2017 14:56	Q170941254	<0.25mg/L	0		0.25		0.25		Blank Acceptable.
Nitrate/Nitrite-N 3/30/2017 14:56	Q170941254	<0.08ppm	0		0.08		0.08		Blank Acceptable.
Solids, Total Dissolved 4/5/2017 9:00	Q170951256	<25mg/L	0		10		25		Blank Acceptable.
Solids, Total Dissolved 4/3/2017 16:00	Q170941424	<25mg/L	0		10		25		Blank Acceptable.
Sulfate, IC 3/30/2017 14:56	Q170941254	<1mg/L	0		1		1		Blank Acceptable.
Duplicate									
pH (Standard Units) 3/30/2017 16:55	Q170900909	7.27SU	7.28		2	0.1%	20		Duplicate RPD Acceptable.
Solids, Total Dissolved 4/3/2017 16:00	Q170941425	514mg/L	510		10	0.8%	20		Duplicate RPD Acceptable.
Solids, Total Dissolved 4/5/2017 9:00	Q170951257	832mg/L	830		10	0.2%	20		Duplicate RPD Acceptable.
Laboratory Control Standard									
.- Chloride, IC 3/30/2017 15:35	Q170941255	26.2mg/L	25		1	104.8%	80 - 120		Standard Recovery Acceptable.
						4.7%	20		Standard RPD Acceptable.
Fluoride, IC 3/30/2017 15:35	Q170941255	2.1mg/L	2		0.25	105.0%	80 - 120		Standard Recovery Acceptable.
						4.9%	20		Standard RPD Acceptable.
Nitrate/Nitrite-N 3/30/2017 15:35	Q170941255	1.09ppm	1.06		0.08	102.8%	80 - 120		Standard Recovery Acceptable.
						2.8%	20		Standard RPD Acceptable.
pH (Standard Units) 3/30/2017 16:55	Q170900908	7.01SU	7		2	100.1%	80 - 120		Standard Recovery Acceptable.
						0.1%	20		Standard RPD Acceptable.
Sulfate, IC 3/30/2017 15:35	Q170941255	26.7mg/L	25		1	106.8%	80 - 120		Standard Recovery Acceptable.
						6.6%	20		Standard RPD Acceptable.
Matrix Spike									
.- Chloride, IC 3/30/2017 17:29	Q17094125A	88mg/L	87	25	1	104.0%	80 - 120		Spike Recovery Acceptable.
						1.1%	20		Spike RPD Acceptable.
Fluoride, IC 3/30/2017 17:29	Q17094125A	2.26mg/L	2.34	2	0.25	96.0%	80 - 120		Spike Recovery Acceptable.
						3.5%	20		Spike RPD Acceptable.
Nitrate/Nitrite-N 3/3/2017 17:29	Q17094125A	1.05ppm	1.06	1.06	0.08	99.1%	80 - 120		Spike Recovery Acceptable.
						0.9%	20		Spike RPD Acceptable.
Sulfate, IC 3/30/2017 17:29	Q17094125A	115mg/L	114.6	25	1	101.6%	70 - 130		Spike Recovery Acceptable.
						0.3%	20		Spike RPD Acceptable.

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

Batch # 53304

BatchNo: 53304

Parameter	ID	Result	Ref Value	Amt Added	LOQ	Qualifer	Control	Flag	Comments
Matrix Spike Dup									
Chloride, IC	Q17094125B	87.9mg/L	87	25	1	103.6%	80 - 120		Spike Recovery Acceptable.
3/30/2017 18:07						1.0%	20		Spike RPD Acceptable.
Fluoride, IC	Q17094125B	2.27mg/L	2.34	2	0.25	96.5%	80 - 120		Spike Recovery Acceptable.
3/30/2017 18:07						3.0%	20		Spike RPD Acceptable.
Nitrate/Nitrite-N	Q17094125B	1.05ppm	1.06	1.06	0.08	99.1%	80 - 120		Spike Recovery Acceptable.
3/27/2017 18:07						0.9%	20		Spike RPD Acceptable.
Sulfate, IC	Q17094125B	115mg/L	114.6	25	1	101.6%	70 - 130		Spike Recovery Acceptable.
3/30/2017 18:07						0.3%	20		Spike RPD Acceptable.

Flag and Qualifier Legend

Negative - Result Detected

Caution - Problem Detected

Warning - Null Value

MDL = Method Detection Limit ***DF = Dilution Factor***

LOQ = Limit of Quantitation ***j = Analyte detected between MDL and LOQ***

S = surrogate standard out of limit ***H = sample out of hold time***

MS, MSD, RPD- Failure may occur due to matrix interference, data released per QA plan

Monday, May 01, 2017 **B Environmental - LDMS QA Report Summary**

Note: THANK YOU!

DHL Analytical, Inc. **Date:** *07-Apr-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Lab Order: 1703260

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition and Standard Methods.

For Metals analysis by method SW6020A the dissolved Lithium or Molybdenum results were slightly higher than the total Lithium or Molybdenum results for samples MW 10, PS 3, MW 9 and MW 9A. These are within the acceptable variation limits. No further corrective actions were taken.

All method blanks, sample duplicates, laboratory spikes, and/or matrix spikes met quality assurance objectives except where noted in the following. For Total Metals analysis by method SW6020A (batch 79805) the matrix spike and matrix spike duplicate recoveries were out of control limits for three analytes. These are flagged accordingly in the enclosed QC summary report. The "S" flag denotes spike recovery was outside control limits. The LCS was within control limits for these analytes. No further corrective actions were taken.

For Mercury analysis by method SW7470A the PDS recovery was slightly below control limits. This is flagged accordingly. The serial dilution was within control limits. No further corrective actions were taken.

DHL Analytical, Inc.

Date: *07-Apr-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (53304)
Lab Order: 1703260

Client Sample ID: MW 10
Lab ID: 1703260-01
Alternate ID: S170891624
Collection Date: 03/30/17 01:45 PM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	**0.0193**	0.00500	0.0100		mg/L	1	04/06/17 01:08 PM
Dissolved Molybdenum	**0.0322**	0.00200	0.00500		mg/L	1	04/06/17 01:08 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	04/04/17 11:11 AM
Arsenic	**0.0110**	0.00200	0.00500		mg/L	1	04/04/17 11:11 AM
Barium	**0.0844**	0.00300	0.0100		mg/L	1	04/04/17 11:11 AM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 11:11 AM
Boron	**3.74**	0.200	0.600		mg/L	20	04/05/17 11:08 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 11:11 AM
Calcium	**92.1**	2.00	6.00		mg/L	20	04/05/17 11:08 AM
Chromium	**0.00321**	0.00200	0.00500	J	mg/L	1	04/04/17 11:11 AM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	04/04/17 11:11 AM
Lead	**0.000883**	0.000300	0.00100	J	mg/L	1	04/04/17 11:11 AM
Lithium	**0.0179**	0.00500	0.0100		mg/L	1	04/04/17 11:11 AM
Magnesium	**17.9**	0.100	0.300		mg/L	1	04/04/17 11:11 AM
Molybdenum	**0.0342**	0.00200	0.00500		mg/L	1	04/04/17 11:11 AM
Potassium	**1.29**	0.100	0.300		mg/L	1	04/04/17 11:11 AM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	04/04/17 11:11 AM
Sodium	**169**	2.00	6.00		mg/L	20	04/05/17 11:08 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	04/04/17 11:11 AM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	04/05/17 10:40 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	**307**	10.0	20.0		mg/L @ pH 4.53	1	04/03/17 11:41 AM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	04/03/17 11:41 AM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	04/03/17 11:41 AM
Alkalinity, Total (As CaCO3)	**307**	20.0	20.0		mg/L @ pH 4.53	1	04/03/17 11:41 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *07-Apr-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (53304)
Lab Order: 1703260

Client Sample ID: MW 10A
Lab ID: 1703260-02
Alternate ID: S17089162A
Collection Date: 03/30/17 01:13 PM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	**0.0218**	0.00500	0.0100		mg/L	1	04/06/17 01:10 PM
Dissolved Molybdenum	**0.0161**	0.00200	0.00500		mg/L	1	04/06/17 01:10 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	04/04/17 11:13 AM
Arsenic	**0.00503**	0.00200	0.00500		mg/L	1	04/04/17 11:13 AM
Barium	**0.110**	0.00300	0.0100		mg/L	1	04/04/17 11:13 AM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 11:13 AM
Boron	**1.53**	0.200	0.600		mg/L	20	04/05/17 11:10 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 11:13 AM
Calcium	**153**	2.00	6.00		mg/L	20	04/05/17 11:10 AM
Chromium	**0.00361**	0.00200	0.00500	J	mg/L	1	04/04/17 11:13 AM
Cobalt	**0.00387**	0.00300	0.00500	J	mg/L	1	04/04/17 11:13 AM
Lead	**0.000669**	0.000300	0.00100	J	mg/L	1	04/04/17 11:13 AM
Lithium	**0.0238**	0.00500	0.0100		mg/L	1	04/04/17 11:13 AM
Magnesium	**29.7**	2.00	6.00		mg/L	20	04/05/17 11:10 AM
Molybdenum	**0.0194**	0.00200	0.00500		mg/L	1	04/04/17 11:13 AM
Potassium	**2.03**	0.100	0.300		mg/L	1	04/04/17 11:13 AM
Selenium	**0.00231**	0.00200	0.00500	J	mg/L	1	04/04/17 11:13 AM
Sodium	**171**	2.00	6.00		mg/L	20	04/05/17 11:10 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	04/04/17 11:13 AM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	04/05/17 10:53 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	**324**	10.0	20.0		mg/L @ pH 4.53	1	04/03/17 11:54 AM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	04/03/17 11:54 AM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	04/03/17 11:54 AM
Alkalinity, Total (As CaCO3)	**324**	20.0	20.0		mg/L @ pH 4.53	1	04/03/17 11:54 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *07-Apr-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (53304)
Lab Order: 1703260

Client Sample ID: PS 3
Lab ID: 1703260-03
Alternate ID: S17089162B
Collection Date: 03/30/17 08:36 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	**0.00901**	0.00500	0.0100	J	mg/L	1	04/06/17 01:12 PM
Dissolved Molybdenum	**0.00548**	0.00200	0.00500		mg/L	1	04/06/17 01:12 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	04/04/17 11:15 AM
Arsenic	**0.00819**	0.00200	0.00500		mg/L	1	04/04/17 11:15 AM
Barium	**0.103**	0.00300	0.0100		mg/L	1	04/04/17 11:15 AM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 11:15 AM
Boron	**1.57**	0.100	0.300		mg/L	10	04/05/17 11:12 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 11:15 AM
Calcium	**41.7**	1.00	3.00		mg/L	10	04/05/17 11:12 AM
Chromium	**0.00327**	0.00200	0.00500	J	mg/L	1	04/04/17 11:15 AM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	04/04/17 11:15 AM
Lead	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 11:15 AM
Lithium	**0.00886**	0.00500	0.0100	J	mg/L	1	04/04/17 11:15 AM
Magnesium	**4.27**	0.100	0.300		mg/L	1	04/04/17 11:15 AM
Molybdenum	**0.00569**	0.00200	0.00500		mg/L	1	04/04/17 11:15 AM
Potassium	**2.40**	0.100	0.300		mg/L	1	04/04/17 11:15 AM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	04/04/17 11:15 AM
Sodium	**67.9**	1.00	3.00		mg/L	10	04/05/17 11:12 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	04/04/17 11:15 AM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	04/05/17 10:55 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	**169**	10.0	20.0		mg/L @ pH 4.5	1	04/03/17 12:01 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.5	1	04/03/17 12:01 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.5	1	04/03/17 12:01 PM
Alkalinity, Total (As CaCO3)	**169**	20.0	20.0		mg/L @ pH 4.5	1	04/03/17 12:01 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level
C	Sample Result or QC discussed in the Case Narrative
E	TPH pattern not Gas or Diesel Range Pattern
MDL	Method Detection Limit
RL	Reporting Limit
B	Analyte detected in the associated Method Blank
DF	Dilution Factor
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *07-Apr-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (53304)
Lab Order: 1703260

Client Sample ID: MW 9
Lab ID: 1703260-04
Alternate ID: S17089162C
Collection Date: 03/30/17 09:45 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	**0.00559**	0.00500	0.0100	J	mg/L	1	04/06/17 01:13 PM
Dissolved Molybdenum	**0.0776**	0.00200	0.00500		mg/L	1	04/06/17 01:13 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	04/04/17 11:17 AM
Arsenic	**0.00909**	0.00200	0.00500		mg/L	1	04/04/17 11:17 AM
Barium	**0.121**	0.00300	0.0100		mg/L	1	04/04/17 11:17 AM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 11:17 AM
Boron	**3.38**	0.100	0.300		mg/L	10	04/05/17 11:14 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 11:17 AM
Calcium	**54.5**	1.00	3.00		mg/L	10	04/05/17 11:14 AM
Chromium	**0.00220**	0.00200	0.00500	J	mg/L	1	04/04/17 11:17 AM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	04/04/17 11:17 AM
Lead	**0.00217**	0.000300	0.00100		mg/L	1	04/04/17 11:17 AM
Lithium	**0.00571**	0.00500	0.0100	J	mg/L	1	04/04/17 11:17 AM
Magnesium	**7.71**	0.100	0.300		mg/L	1	04/04/17 11:17 AM
Molybdenum	**0.0747**	0.00200	0.00500		mg/L	1	04/04/17 11:17 AM
Potassium	**1.04**	0.100	0.300		mg/L	1	04/04/17 11:17 AM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	04/04/17 11:17 AM
Sodium	**63.9**	1.00	3.00		mg/L	10	04/05/17 11:14 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	04/04/17 11:17 AM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	04/05/17 10:57 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	**139**	10.0	20.0		mg/L @ pH 4.51	1	04/03/17 12:06 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	04/03/17 12:06 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	04/03/17 12:06 PM
Alkalinity, Total (As CaCO3)	**139**	20.0	20.0		mg/L @ pH 4.51	1	04/03/17 12:06 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level
C	Sample Result or QC discussed in the Case Narrative
E	TPH pattern not Gas or Diesel Range Pattern
MDL	Method Detection Limit
RL	Reporting Limit
B	Analyte detected in the associated Method Blank
DF	Dilution Factor
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *07-Apr-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (53304)
Lab Order: 1703260

Client Sample ID: MW 9A
Lab ID: 1703260-05
Alternate ID: S17089162D
Collection Date: 03/30/17 09:13 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	**0.00644**	0.00500	0.0100	J	mg/L	1	04/06/17 01:15 PM
Dissolved Molybdenum	**0.0661**	0.00200	0.00500		mg/L	1	04/06/17 01:15 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	04/04/17 11:19 AM
Arsenic	**0.00950**	0.00200	0.00500		mg/L	1	04/04/17 11:19 AM
Barium	**0.0975**	0.00300	0.0100		mg/L	1	04/04/17 11:19 AM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 11:19 AM
Boron	**3.36**	0.100	0.300		mg/L	10	04/05/17 11:16 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 11:19 AM
Calcium	**49.3**	1.00	3.00		mg/L	10	04/05/17 11:16 AM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	04/04/17 11:19 AM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	04/04/17 11:19 AM
Lead	**0.00113**	0.000300	0.00100		mg/L	1	04/04/17 11:19 AM
Lithium	**0.00593**	0.00500	0.0100	J	mg/L	1	04/04/17 11:19 AM
Magnesium	**8.72**	0.100	0.300		mg/L	1	04/04/17 11:19 AM
Molybdenum	**0.0684**	0.00200	0.00500		mg/L	1	04/04/17 11:19 AM
Potassium	**0.863**	0.100	0.300		mg/L	1	04/04/17 11:19 AM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	04/04/17 11:19 AM
Sodium	**64.8**	1.00	3.00		mg/L	10	04/05/17 11:16 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	04/04/17 11:19 AM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	04/05/17 11:00 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	**136**	10.0	20.0		mg/L @ pH 4.51	1	04/03/17 12:11 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	04/03/17 12:11 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	04/03/17 12:11 PM
Alkalinity, Total (As CaCO3)	**136**	20.0	20.0		mg/L @ pH 4.51	1	04/03/17 12:11 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level
C	Sample Result or QC discussed in the Case Narrative
E	TPH pattern not Gas or Diesel Range Pattern
MDL	Method Detection Limit
RL	Reporting Limit
B	Analyte detected in the associated Method Blank
DF	Dilution Factor
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *07-Apr-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (53304)
Lab Order: 1703260

Client Sample ID: MW 5
Lab ID: 1703260-06
Alternate ID: S17089162E
Collection Date: 03/30/17 10:58 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	**0.0183**	0.00500	0.0100		mg/L	1	04/06/17 01:17 PM
Dissolved Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	04/06/17 01:17 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	04/04/17 11:21 AM
Arsenic	**0.00953**	0.00200	0.00500		mg/L	1	04/04/17 11:21 AM
Barium	**0.0748**	0.00300	0.0100		mg/L	1	04/04/17 11:21 AM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 11:21 AM
Boron	**0.110**	0.0100	0.0300		mg/L	1	04/05/17 01:23 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 11:21 AM
Calcium	**110**	2.00	6.00		mg/L	20	04/05/17 11:18 AM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	04/04/17 11:21 AM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	04/04/17 11:21 AM
Lead	**0.000362**	0.000300	0.00100	J	mg/L	1	04/04/17 11:21 AM
Lithium	**0.0192**	0.00500	0.0100		mg/L	1	04/04/17 11:21 AM
Magnesium	**23.3**	0.100	0.300		mg/L	1	04/04/17 11:21 AM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	04/04/17 11:21 AM
Potassium	**1.58**	0.100	0.300		mg/L	1	04/04/17 11:21 AM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	04/04/17 11:21 AM
Sodium	**131**	2.00	6.00		mg/L	20	04/05/17 11:18 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	04/04/17 11:21 AM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	04/05/17 11:02 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	**286**	10.0	20.0		mg/L @ pH 4.51	1	04/03/17 12:23 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	04/03/17 12:23 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	04/03/17 12:23 PM
Alkalinity, Total (As CaCO3)	**286**	20.0	20.0		mg/L @ pH 4.51	1	04/03/17 12:23 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level
C	Sample Result or QC discussed in the Case Narrative
E	TPH pattern not Gas or Diesel Range Pattern
MDL	Method Detection Limit
RL	Reporting Limit
B	Analyte detected in the associated Method Blank
DF	Dilution Factor
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *07-Apr-17*

CLIENT: B-Environmental
Work Order: 1703260
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_170405A

The QC data in batch 79830 applies to the following samples: 1703260-01A, 1703260-02A, 1703260-03A, 1703260-04A, 1703260-05A, 1703260-06A

Sample ID **MB-79830**	Batch ID: **79830**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **MBLK**	Run ID: **CETAC2_HG_170405A**	Analysis Date: **4/5/2017 10:02:26 AM**	Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.0000800	0.000200								

Sample ID **LCS-79830**	Batch ID: **79830**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **LCS**	Run ID: **CETAC2_HG_170405A**	Analysis Date: **4/5/2017 10:06:58 AM**	Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00208	0.000200	0.00200	0	104	85	115			

Sample ID **LCSD-79830**	Batch ID: **79830**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **LCSD**	Run ID: **CETAC2_HG_170405A**	Analysis Date: **4/5/2017 10:09:15 AM**	Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00192	0.000200	0.00200	0	96.0	85	115	8.00	15	

Sample ID **1703259-05A SD**	Batch ID: **79830**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **SD**	Run ID: **CETAC2_HG_170405A**	Analysis Date: **4/5/2017 10:27:21 AM**	Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.000400	0.00100	0	0				0	10	

Sample ID **1703259-05A PDS**	Batch ID: **79830**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **PDS**	Run ID: **CETAC2_HG_170405A**	Analysis Date: **4/5/2017 10:29:37 AM**	Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00209	0.000200	0.00250	0	83.6	85	115			S

Sample ID **1703259-05A MS**	Batch ID: **79830**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **MS**	Run ID: **CETAC2_HG_170405A**	Analysis Date: **4/5/2017 10:31:53 AM**	Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00170	0.000200	0.00200	0	85.0	80	120			

Sample ID **1703259-05A MSD**	Batch ID: **79830**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **MSD**	Run ID: **CETAC2_HG_170405A**	Analysis Date: **4/5/2017 10:34:09 AM**	Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00176	0.000200	0.00200	0	88.0	80	120	3.47	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

Batch # 53304

CLIENT: B-Environmental
Work Order: 1703260
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170404A

The QC data in batch 79805 applies to the following samples: 1703260-01A, 1703260-02A, 1703260-03A, 1703260-04A, 1703260-05A, 1703260-06A

Sample ID **MB-79805** Batch ID: **79805** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS4_170404A** Analysis Date: **4/4/2017 10:24:00 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.000800	0.00250								
Arsenic	<0.00200	0.00500								
Barium	<0.00300	0.0100								
Beryllium	<0.000300	0.00100								
Cadmium	<0.000300	0.00100								
Calcium	<0.100	0.300								
Chromium	<0.00200	0.00500								
Cobalt	<0.00300	0.00500								
Lead	<0.000300	0.00100								
Lithium	<0.00500	0.0100								
Magnesium	<0.100	0.300								
Molybdenum	<0.00200	0.00500								
Potassium	<0.100	0.300								
Selenium	<0.00200	0.00500								
Sodium	<0.100	0.300								
Thallium	<0.000500	0.00150								

Sample ID **LCS-79805** Batch ID: **79805** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS4_170404A** Analysis Date: **4/4/2017 10:26:00 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.192	0.00250	0.200	0	96.1	80	120			
Arsenic	0.198	0.00500	0.200	0	99.0	80	120			
Barium	0.197	0.0100	0.200	0	98.3	80	120			
Beryllium	0.203	0.00100	0.200	0	102	80	120			
Cadmium	0.200	0.00100	0.200	0	100	80	120			
Calcium	4.63	0.300	5.00	0	92.6	80	120			
Chromium	0.205	0.00500	0.200	0	102	80	120			
Cobalt	0.207	0.00500	0.200	0	104	80	120			
Lead	0.198	0.00100	0.200	0	99.1	80	120			
Lithium	0.200	0.0100	0.200	0	99.9	80	120			
Magnesium	4.94	0.300	5.00	0	98.8	80	120			
Molybdenum	0.193	0.00500	0.200	0	96.4	80	120			
Potassium	4.88	0.300	5.00	0	97.6	80	120			
Selenium	0.202	0.00500	0.200	0	101	80	120			
Sodium	4.98	0.300	5.00	0	99.5	80	120			
Thallium	0.197	0.00150	0.200	0	98.5	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL
DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1703260
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170404A

Sample ID **LCSD-79805** Batch ID: **79805** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS4_170404A** Analysis Date: **4/4/2017 10:28:00 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.194	0.00250	0.200	0	97.1	80	120	1.04	15	
Arsenic	0.199	0.00500	0.200	0	99.6	80	120	0.627	15	
Barium	0.200	0.0100	0.200	0	100	80	120	1.76	15	
Beryllium	0.210	0.00100	0.200	0	105	80	120	3.00	15	
Cadmium	0.203	0.00100	0.200	0	102	80	120	1.58	15	
Calcium	4.65	0.300	5.00	0	92.9	80	120	0.371	15	
Chromium	0.207	0.00500	0.200	0	103	80	120	0.840	15	
Cobalt	0.208	0.00500	0.200	0	104	80	120	0.154	15	
Lead	0.200	0.00100	0.200	0	100	80	120	1.06	15	
Lithium	0.206	0.0100	0.200	0	103	80	120	3.17	15	
Magnesium	5.00	0.300	5.00	0	100	80	120	1.28	15	
Molybdenum	0.197	0.00500	0.200	0	98.4	80	120	1.99	15	
Potassium	4.94	0.300	5.00	0	98.8	80	120	1.19	15	
Selenium	0.202	0.00500	0.200	0	101	80	120	0.072	15	
Sodium	4.99	0.300	5.00	0	99.7	80	120	0.204	15	
Thallium	0.199	0.00150	0.200	0	99.3	80	120	0.833	15	

Sample ID **1703259-05A SD** Batch ID: **79805** TestNo: **SW6020A** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS4_170404A** Analysis Date: **4/4/2017 10:34:00 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.00400	0.0125	0	0				0	10	
Arsenic	<0.0100	0.0250	0	0.00827				0	10	
Barium	0.0897	0.0500	0	0.0900				0.327	10	
Beryllium	<0.00150	0.00500	0	0				0	10	
Cadmium	<0.00150	0.00500	0	0				0	10	
Chromium	<0.0100	0.0250	0	0				0	10	
Cobalt	<0.0150	0.0250	0	0				0	10	
Lead	<0.00150	0.00500	0	0.000996				0	10	
Lithium	<0.0250	0.0500	0	0.00981				0	10	
Magnesium	9.69	1.50	0	9.30				4.14	10	
Molybdenum	<0.0100	0.0250	0	0.00749				0	10	
Potassium	0.930	1.50	0	0.918				1.27	10	
Selenium	<0.0100	0.0250	0	0				0	10	
Thallium	<0.00250	0.00750	0	0				0	10	

Sample ID **1703259-05A PDS** Batch ID: **79805** TestNo: **SW6020A** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS4_170404A** Analysis Date: **4/4/2017 10:53:00 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.205	0.00250	0.200	0	102	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1703260
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170404A

Sample ID **1703259-05A PDS** Batch ID: **79805** TestNo: **SW6020A** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS4_170404A** Analysis Date: **4/4/2017 10:53:00 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.204	0.00500	0.200	0.00827	98.0	80	120			
Barium	0.292	0.0100	0.200	0.0900	101	80	120			
Beryllium	0.192	0.00100	0.200	0	95.9	80	120			
Cadmium	0.198	0.00100	0.200	0	98.9	80	120			
Chromium	0.203	0.00500	0.200	0	102	80	120			
Cobalt	0.204	0.00500	0.200	0	102	80	120			
Lead	0.201	0.00100	0.200	0.000996	100	80	120			
Lithium	0.200	0.0100	0.200	0.00981	95.3	80	120			
Magnesium	13.8	0.300	5.00	9.29	90.4	80	120			
Molybdenum	0.199	0.00500	0.200	0.00749	96.0	80	120			
Potassium	5.97	0.300	5.00	0.918	101	80	120			
Selenium	0.200	0.00500	0.200	0	99.9	80	120			
Thallium	0.197	0.00150	0.200	0	98.7	80	120			

Sample ID **1703259-05A MS** Batch ID: **79805** TestNo: **SW6020A** Units: **mg/L**
SampType: **MS** Run ID: **ICP-MS4_170404A** Analysis Date: **4/4/2017 10:55:00 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.193	0.00250	0.200	0	96.4	80	120			
Arsenic	0.205	0.00500	0.200	0.00827	98.3	80	120			
Barium	0.288	0.0100	0.200	0.0900	98.9	80	120			
Beryllium	0.188	0.00100	0.200	0	94.1	80	120			
Cadmium	0.194	0.00100	0.200	0	97.2	80	120			
Calcium	77.2	0.300	5.00	73.8	67.5	80	120			S
Chromium	0.197	0.00500	0.200	0	98.5	80	120			
Cobalt	0.201	0.00500	0.200	0	101	80	120			
Lead	0.201	0.00100	0.200	0.000996	100	80	120			
Lithium	0.197	0.0100	0.200	0.00981	93.6	80	120			
Magnesium	13.9	0.300	5.00	9.29	91.6	80	120			
Molybdenum	0.199	0.00500	0.200	0.00749	95.9	80	120			
Potassium	5.84	0.300	5.00	0.918	98.5	80	120			
Selenium	0.203	0.00500	0.200	0	101	80	120			
Sodium	72.8	0.300	5.00	69.6	63.8	80	120			S
Thallium	0.199	0.00150	0.200	0	99.5	80	120			

Sample ID **1703259-05A MSD** Batch ID: **79805** TestNo: **SW6020A** Units: **mg/L**
SampType: **MSD** Run ID: **ICP-MS4_170404A** Analysis Date: **4/4/2017 10:57:00 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.194	0.00250	0.200	0	97.2	80	120	0.870	15	
Arsenic	0.205	0.00500	0.200	0.00827	98.3	80	120	0.030	15	

Qualifiers:

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL
DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1703260
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170404A

Sample ID **1703259-05A MSD** Batch ID: **79805** TestNo: **SW6020A** Units: **mg/L**
SampType: **MSD** Run ID: **ICP-MS4_170404A** Analysis Date: **4/4/2017 10:57:00 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.292	0.0100	0.200	0.0900	101	80	120	1.28	15	
Beryllium	0.189	0.00100	0.200	0	94.4	80	120	0.266	15	
Cadmium	0.196	0.00100	0.200	0	97.8	80	120	0.688	15	
Calcium	77.7	0.300	5.00	73.8	78.1	80	120	0.682	15	S
Chromium	0.197	0.00500	0.200	0	98.6	80	120	0.111	15	
Cobalt	0.201	0.00500	0.200	0	100	80	120	0.113	15	
Lead	0.203	0.00100	0.200	0.000996	101	80	120	0.632	15	
Lithium	0.195	0.0100	0.200	0.00981	92.8	80	120	0.755	15	
Magnesium	13.9	0.300	5.00	9.29	91.7	80	120	0.042	15	
Molybdenum	0.201	0.00500	0.200	0.00749	96.7	80	120	0.821	15	
Potassium	5.82	0.300	5.00	0.918	98.0	80	120	0.448	15	
Selenium	0.203	0.00500	0.200	0	101	80	120	0.150	15	
Sodium	72.5	0.300	5.00	69.6	56.5	80	120	0.499	15	S
Thallium	0.200	0.00150	0.200	0	100	80	120	0.520	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1703260
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170405A

The QC data in batch 79805 applies to the following samples: 1703260-01A, 1703260-02A, 1703260-03A, 1703260-04A, 1703260-05A, 1703260-06A

Sample ID MB-79805	Batch ID: 79805	TestNo: SW6020A	Units: mg/L
SampType: MBLK	Run ID: ICP-MS4_170405A	Analysis Date: 4/5/2017 10:24:00 AM	Prep Date: 4/3/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	<0.0100	0.0300								

Sample ID LCS-79805	Batch ID: 79805	TestNo: SW6020A	Units: mg/L
SampType: LCS	Run ID: ICP-MS4_170405A	Analysis Date: 4/5/2017 10:26:00 AM	Prep Date: 4/3/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.205	0.0300	0.200	0	102	80	120			

Sample ID LCSD-79805	Batch ID: 79805	TestNo: SW6020A	Units: mg/L
SampType: LCSD	Run ID: ICP-MS4_170405A	Analysis Date: 4/5/2017 10:28:00 AM	Prep Date: 4/3/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.206	0.0300	0.200	0	103	80	120	0.589	15	

Sample ID 1703259-05A SD	Batch ID: 79805	TestNo: SW6020A	Units: mg/L
SampType: SD	Run ID: ICP-MS4_170405A	Analysis Date: 4/5/2017 10:34:00 AM	Prep Date: 4/3/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	1.73	1.50	0	1.67				3.63	10	
Calcium	75.3	15.0	0	73.9				1.92	10	
Sodium	74.3	15.0	0	71.6				3.69	10	

Sample ID 1703259-05A PDS	Batch ID: 79805	TestNo: SW6020A	Units: mg/L
SampType: PDS	Run ID: ICP-MS4_170405A	Analysis Date: 4/5/2017 10:54:00 AM	Prep Date: 4/3/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	3.88	0.300	2.00	1.67	110	80	120			
Calcium	124	3.00	50.0	73.9	100	80	120			
Sodium	127	3.00	50.0	71.6	111	80	120			

Sample ID 1703259-05A MS	Batch ID: 79805	TestNo: SW6020A	Units: mg/L
SampType: MS	Run ID: ICP-MS4_170405A	Analysis Date: 4/5/2017 10:56:00 AM	Prep Date: 4/3/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	1.94	0.300	0.200	1.67	137	80	120			S

Sample ID 1703259-05A MSD	Batch ID: 79805	TestNo: SW6020A	Units: mg/L
SampType: MSD	Run ID: ICP-MS4_170405A	Analysis Date: 4/5/2017 10:58:00 AM	Prep Date: 4/3/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1703260
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170405A

Sample ID **1703259-05A MSD** Batch ID: **79805** TestNo: **SW6020A** Units: **mg/L**
SampType: **MSD** Run ID: **ICP-MS4_170405A** Analysis Date: **4/5/2017 10:58:00 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	1.91	0.300	0.200	1.67	123	80	120	1.50	15	S

Qualifiers:

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL
DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1703260
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170406B

The QC data in batch 79865 applies to the following samples: 1703260-01B, 1703260-02B, 1703260-03B, 1703260-04B, 1703260-05B, 1703260-06B

Sample ID **MB-79865** Batch ID: **79865** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS5_170406B** Analysis Date: **4/6/2017 12:30:00 PM** Prep Date: **4/5/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.00500	0.0100								
Molybdenum	<0.00200	0.00500								

Sample ID **LCS-79865** Batch ID: **79865** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS5_170406B** Analysis Date: **4/6/2017 12:31:00 PM** Prep Date: **4/5/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.200	0.0100	0.200	0	100	80	120			
Molybdenum	0.190	0.00500	0.200	0	94.8	80	120			

Sample ID **LCSD-79865** Batch ID: **79865** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS5_170406B** Analysis Date: **4/6/2017 12:33:00 PM** Prep Date: **4/5/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.206	0.0100	0.200	0	103	80	120	3.04	15	
Molybdenum	0.193	0.00500	0.200	0	96.5	80	120	1.82	15	

Sample ID **1703259-05B SD** Batch ID: **79865** TestNo: **SW6020A** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS5_170406B** Analysis Date: **4/6/2017 12:38:00 PM** Prep Date: **4/5/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.0250	0.0500	0	0.00925				0	10	
Molybdenum	<0.0100	0.0250	0	0.00693				0	10	

Sample ID **1703259-05B PDS** Batch ID: **79865** TestNo: **SW6020A** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS5_170406B** Analysis Date: **4/6/2017 12:56:00 PM** Prep Date: **4/5/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.202	0.0100	0.200	0.00925	96.4	80	120			
Molybdenum	0.193	0.00500	0.200	0.00693	92.9	80	120			

Sample ID **1703259-05B MS** Batch ID: **79865** TestNo: **SW6020A** Units: **mg/L**
SampType: **MS** Run ID: **ICP-MS5_170406B** Analysis Date: **4/6/2017 12:58:00 PM** Prep Date: **4/5/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.205	0.0100	0.200	0.00925	97.8	80	120			
Molybdenum	0.198	0.00500	0.200	0.00693	95.4	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1703260
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170406B

Sample ID **1703259-05B MSD** Batch ID: **79865** TestNo: **SW6020A** Units: **mg/L**
SampType: **MSD** Run ID: **ICP-MS5_170406B** Analysis Date: **4/6/2017 12:59:00 PM** Prep Date: **4/5/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.197	0.0100	0.200	0.00925	93.8	80	120	3.99	15	
Molybdenum	0.198	0.00500	0.200	0.00693	95.3	80	120	0.079	15	

Qualifiers:

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL
DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1703260
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_170403A

The QC data in batch 79803 applies to the following samples: 1703260-01C, 1703260-02C, 1703260-03C, 1703260-04C, 1703260-05C, 1703260-06C

Sample ID **MB-79803** Batch ID: **79803** TestNo: **M2320 B** Units: **mg/L @ pH 4.34**
SampType: **MBLK** Run ID: **TITRATOR_170403A** Analysis Date: **4/3/2017 9:09:00 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0								
Alkalinity, Total (As CaCO3)	<20.0	20.0								

Sample ID **LCS-79803** Batch ID: **79803** TestNo: **M2320 B** Units: **mg/L @ pH 4.22**
SampType: **LCS** Run ID: **TITRATOR_170403A** Analysis Date: **4/3/2017 9:13:00 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	50.2	20.0	50.00	0	100	74	129			

Sample ID **1703258-01C-DUP** Batch ID: **79803** TestNo: **M2320 B** Units: **mg/L @ pH 4.5**
SampType: **DUP** Run ID: **TITRATOR_170403A** Analysis Date: **4/3/2017 10:04:00 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	111	20.0	0	113.7				2.76	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	111	20.0	0	113.7				2.76	20	

Sample ID **1703259-05C-DUP** Batch ID: **79803** TestNo: **M2320 B** Units: **mg/L @ pH 4.52**
SampType: **DUP** Run ID: **TITRATOR_170403A** Analysis Date: **4/3/2017 11:06:00 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	180	20.0	0	181.2				0.720	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	180	20.0	0	181.2				0.720	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-00840
Client Sample ID: S170891624 (BATCH 53304)
Sample Collection Date: 03/30/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-00840-001
Date Received: 03/31/17
Report Date: 04/28/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.192	0.136	0.185	0.075	NP		pCi/L	ARS-010/EPA 903.0/904.0	04/17/17 7:34	SCAUSEY	86%
Ra-228	1.247	0.927	1.449	0.675	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	04/07/17 13:23	SCAUSEY	81%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2998

ARS Sample Delivery Group: ARS1-17-00840
Client Sample ID: S17089162A (BATCH 53304)
Sample Collection Date: 03/30/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-00840-002
Date Received: 03/31/17
Report Date: 04/28/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.146	0.115	0.156	0.060	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	04/17/17 7:34	SCAUSEY	92%
Ra-228	0.837	0.784	1.264	0.586	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	04/07/17 13:23	SCAUSEY	88%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-00840
Client Sample ID: S17089162B (BATCH 53304)
Sample Collection Date: 03/30/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-00840-003
Date Received: 03/31/17
Report Date: 04/28/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 σ	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.182	0.123	0.162	0.064	NP		pCi/L	ARS-010/EPA 903.0/904.0	04/17/17 7:34	SCAUSEY	100%
Ra-228	0.468	0.727	1.232	0.573	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	04/07/17 13:23	SCAUSEY	94%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-00840
Client Sample ID: S17089162C (BATCH 53304)
Sample Collection Date: 03/30/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-00840-004
Date Received: 03/31/17
Report Date: 04/28/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.456	0.190	0.168	0.065	NP		pCi/L	ARS-010/EPA 903.0/904.0	04/17/17 7:34	SCAUSEY	90%
Ra-228	0.897	0.798	1.277	0.592	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	04/07/17 13:23	SCAUSEY	84%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-00840
Client Sample ID: S17089162D (BATCH 53304)
Sample Collection Date: 03/30/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-00840-005
Date Received: 03/31/17
Report Date: 04/28/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.201	0.122	0.141	0.053	NP		pCi/L	ARS-010/EPA 903.0/904.0	04/17/17 7:34	SCAUSEY	94%
Ra-228	0.869	0.803	1.292	0.599	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	04/07/17 13:23	SCAUSEY	88%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-00840
Client Sample ID: S17089162E (BATCH 53304)
Sample Collection Date: 03/30/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-00840-006
Date Received: 03/31/17
Report Date: 04/28/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 σ	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.191	0.126	0.150	0.056	NP		pCi/L	ARS-010/EPA 903.0/904.0	04/17/17 7:34	SCAUSEY	81%
Ra-228	1.252	1.127	1.822	0.859	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	04/07/17 13:23	SCAUSEY	76%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

INTERNATIONAL

QC Results Report

Sample Delivery Group: ARS1-17-00825;839;840

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-00590	LCS	RA-226	23.519	3.793	0.080	27.623	N/A	pCi/L	ARS-010/EPA 903	4/17/17 7:34	SC	85	75%-125%
ARS1-B17-00590	LCS	RA-228	34.549	5.771	1.052	39.784	N/A	pCi/L	ARS-010/EPA 904	4/17/17 7:34	SC	87	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-00590	MBL	RA-226	0.018	0.044	0.082	NA	U	pCi/L	ARS-010/EPA 903	4/17/17 7:34	SC
ARS1-B17-00590	MBL	RA-228	-0.034	0.340	0.618	NA	U	pCi/L	ARS-010/EPA 904	4/17/17 7:34	SC

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-00590	LCSD	RA-226	23.519	3.793	26.740	4.308	N/A	pCi/L	ARS-010/EPA 903	4/17/17 7:34	SC	0.40	< 1
ARS1-B17-00590	LCSD	RA-228	34.549	5.771	36.569	6.096	N/A	pCi/L	ARS-010/EPA 904	4/17/17 7:34	SC	0.17	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-00590	LCSD	RA-226	23.519	3.793	26.740	4.308	N/A	pCi/L	ARS-010/EPA 903	4/17/17 7:34	SC	1.12	< 3
ARS1-B17-00590	LCSD	RA-228	34.549	5.771	36.569	6.096	N/A	pCi/L	ARS-010/EPA 904	4/17/17 7:34	SC	0.48	< 3

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

ARS INTERNATIONAL
2609 North River Road • Port Allen, Louisiana 70767
1 (800) 401-4277 • Fax (225) 381-2996

Notes (Case Narrative):

Comments:

1.0) All MDA/MDC values are calculated on a sample specific basis.
2.0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.
3.0) Data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.
4.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix. Modified analyses are indicated by the subsequent addition of "m" to the procedure number (i.e. 900.0M).
5.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than the actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
6.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228 (Gamma Spectroscopy only).
7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234 (Gamma Spectroscopy only).
8.0) All gamma spectroscopy was performed utilizing high purity germanium detectors (**HPGe**).
9.0) ARS makes every attempt to match sample density to calibrated density; however, in some cases, it is not practical or possible to do so and data results may be affected (Gamma Spectroscopy only).
10.0) Gamma spectroscopy results are calculated values based on the **ORTEC®** GammaVision ENV32 Analysis Engine.
11.0) ACLASS DOD and ISO 17025 certification applies only to the following analytes and methods: Gross Alpha and Gross Beta (EPA 900, SM7110B&C, SW846 9310); Radium 226 (EPA 903, EPA 903.1, SM 7500 Ra-B, SW846 9315); Radium 228 (EPA 904, SM 7500 Ra-B SW846 9320); Iodine-131(EPA 901.1); Uranium by ICPMS (EPA 200.8); Strontium 89/90 (EPA 905, Eichrom SRW01, HASL 300 Sr-03-RC); Tritium (EPA 906, EPA 906M); Gamma Emitters (EPA 901.1, SM7120B, HASL 300 Ga-01-R); Americium-241, Curium 242/244, Plutonium 239/240 and 241, Thorium 228/230/232, Uranium 234/233 and 238 (Eichrom ACW03 VBS); Lead 210 (HASL 300 Pb-01-RC, Eichrom OTW01); Polonium 210 (HASL 300 Po-01-RC, HASL 300 Po-02-RC); Technetium-99 (Eichrom TCW02, Eichrom TCS01M).

Method References:

1.0) **EPA 600/4-80-032**; Prescribed Procedures for the Measurements of Radioactivity in Drinking Water, August 1980.
2.0) **Standard Methods for the Examination of Water and Wastewater** (On-Line Edition)
3.0) **EPA SW-846**; Test Methods for Evaluating Solid Waste, (On-Line edition)
4.0) **EPA 600/4/79-020**; Methods for Chemical Analysis of Water and Waste, March 1983.
5.0) **HASL 300**; The Procedures Manual of the Environmental Measurements Laboratory, Volume I, 28th Edition February, 1997.

Definitions:

CRDL	Contract Required Detection Limit
CSU	Combined Standard Uncertainty
DLC	Decision Level Concentration (ANSI N42.23) or critical level
DO	Duplicate Original
DUP	Method Duplicate
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
MDA	Minimum Detectable Activity
MDC	(Minimum Detectable Concentration) minimum concentration of the analyte that ARS can detect utilizing the specific analysis
MBL	Method Blank
MS/MSD	Matrix Spike/Matrix Spike Duplicate
N/A	Not Applicable
NP	Not Provided
NR	Not Referenced
LOD	Limit of Detection
LOQ	Limit of Quantitation

Data Qualifiers:

B	The analyte is found in both the associated method blank and the sample. This flag indicates probable blank contamination.
D	Sample analysis accomplished through dilution.
J	The reported result is an estimated value above the limit of detection but outside of quantitation range (e.g., matrix interference was observed).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).
U	Activity is below the MDC, MDA, MDL, or LOD
N	The analyte is a tentatively identified compound using mass spectrometry or any non-customer requested compounds that are tentatively identified.
*	LCS/LCSD or MS/MSD fails RPD criteria.
S	Spike
SC	Subcontracted out to another qualified laboratory
H	Holding time exceeded

Environmental

[redacted] Batch # 53304

TEMP UN-C 2.6 | Page 1 of 1 | TEMP Corr: 2.2

Customer / Report Information

Name: Coleto Creek Power
Attention: Rick Coleman
Address:

Billing Information ☒ Check box if Billing is the same as Report Information | THERM ID# 3

Address:
Attention: PO#:
Project: CCR Sampling
Comments:

Phone: 361-788-5145 FAX:
EMAIL: Richard.coleman@dynegy.com

[redacted]

Collected By: [redacted]

Collected By: [redacted]	Collected Date	Collected Time	C=Composite G=Grab	Matrix (DW - Drinking H20; S - Solid; WW - Waste H20; SL - Sludge; L - Liquid; W - Water)	Container TYPE	Container NUMBER	Container SIZE	Preservative	Metals*	Cl,F*,SO4	pH	TDS	Ra226+228	Alk: Tot Carb Bicarb	Diss Li+Mo	Custody Seals Present Yes ☐ No ☐ / Intact Yes ☐ No ☐ / LAB Sample Number
MW 10	3-30-17	1345	G	W	P	6	1L 500 250	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3	X	X	X	X	X	X	X	S170891624
MW 10 A	3-30-17	1313						☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3	X	X	X	X	X	X	X	S17089162A
PS3	3-30-17	836						☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3	X	X	X	X	X	X	X	S17089162B
MW 9	3-30-17	945						☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3	X	X	X	X	X	X	X	S17089162C
MW 9A	3-30-17	913						☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3	X	X	X	X	X	X	X	S17089162D
MW 5	3-30-17	1058						☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3	X	X	X	X	X	X	X	S17089162E
								☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3	X	X	X	X	X	X	X	

Required Turnaround: ☒ Routine (6-10 Business Days) Expedite / Rush: ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business Days ☐ 5 Business Days ☐ Other _____ REMARKS:

Surcharge will apply to RUSH TAT Authorized By:

Container Type: P=Plastic, G=Glass, V=VOA, O=Other | Carrier ID :

Relinquished By:	Date: 3-30-17	Time: 1625	Received By:	Date: 3-30-17	Time: 1625
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

1606 E Brazos Suite D, Victoria, Texas 77901 Ph. (361) 572-8224 Fax (361) 572-4115 Toll Free 1-800-460-8223 Form #1000.0-2 REV 1.2 Email: kbenviro@suddenlinkmail.com www.benvironmental.net

Fluoride: 0.25 mg/L; Metals*: B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, Mg, K, Na, & Hg

April 07, 2017

Lori Vahrenkamp
B-Environmental
1606 E Brazos St
Suite D
Victoria, Texas 77901
TEL: (361) 572-8224
FAX (361) 572-4115

Order No.: 1703260

RE: Coleto Creek Power

Dear Lori Vahrenkamp:

DHL Analytical, Inc. received 6 sample(s) on 3/31/2017 for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative and all estimated uncertainties of results are within method specifications.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

John DuPont
General Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-17-18

Table of Contents

B-Environmental
1606 E Brazos St, Ste D
Victoria TX 77901
Phone: (361) 572-8224
FAX: (361) 572-4115

Chain of Custody & Subcontract Tracking Sheet

To: DHL

1703260

DHL Number	Batch #	BE Number	Client Name	Project	Sample ID	Time Taken	Date Taken	Parameter	Pres.	Due Date
01	53304	S170891624	Coleto Creek Power	CCR	MW 10	1345	03-30-17	Total Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr, Co,Pb,Li,Mo,Se,Tl,Mg,K,Na; Mercury; Dissolved Li & Mo (Field Filtered); Alkalinity (Total, Carb, BiCarb).	HNO3 & ICE (3)	4/13
02	53304	S17089162A	Coleto Creek Power	CCR	MW 10A	1313	03-30-17	Total Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr, Co,Pb,Li,Mo,Se,Tl,Mg,K,Na; Mercury; Dissolved Li & Mo (Field Filtered); Alkalinity (Total, Carb, BiCarb).	HNO3 & ICE (3)	4/13
03	53304	S17089162B	Coleto Creek Power	CCR	PS 3	0836	03-30-17	Total Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr, Co,Pb,Li,Mo,Se,Tl,Mg,K,Na; Mercury; Dissolved Li & Mo (Field Filtered); Alkalinity (Total, Carb, BiCarb).	HNO3 & ICE (3)	4/13
04	53304	S17089162C	Coleto Creek Power	CCR	MW 9	0945	03-30-17	Total Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr, Co,Pb,Li,Mo,Se,Tl,Mg,K,Na; Mercury; Dissolved Li & Mo (Field Filtered); Alkalinity (Total, Carb, BiCarb).	HNO3 & ICE (3)	4/13
05	53304	S17089162D	Coleto Creek Power	CCR	MW 9A	0913	03-30-17	Total Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr, Co,Pb,Li,Mo,Se,Tl,Mg,K,Na; Mercury; Dissolved Li & Mo (Field Filtered); Alkalinity (Total, Carb, BiCarb).	HNO3 & ICE (3)	4/13
06	53304	S17089162E	Coleto Creek Power	CCR	MW 5	1058	03-30-17	Total Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr, Co,Pb,Li,Mo,Se,Tl,Mg,K,Na; Mercury; Dissolved Li & Mo (Field Filtered); Alkalinity (Total, Carb, BiCarb).	HNO3 & ICE (3)	4/13

Comments: Rec temp 1.5 Ice pack #78
via Fedex Custody seal intact

Please E-Mail results to: dbenviro@suddenlinkmail.com

Relinquished by: Tom Vahrenkamp	Date: 3/30/17	Time: 1700
Received by: Bailey	Date: 3/31/17	Time: 820

COC Checked By: LV COC Verified with Cooler By: JW

LSO
It's all in the delivery.

Airbill No. ZU880657

Lone Star Overnight
1-800-800-8984
www.lso.com

SHIP TO:
JOHN DUPONT
DHL
2300 DOUBLE CREEK DR.
ROUND ROCK, TX 78664
5123888222

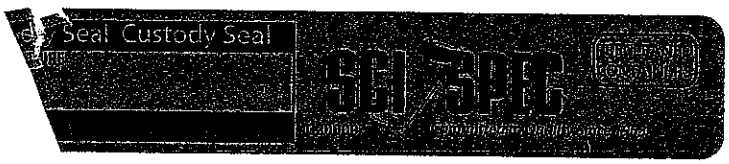
From:
FRONT DESK
B-ENVIRONMENTAL
1606 E. BRAZOS SUITE D
VICTORIA, TX 77901
3615728224

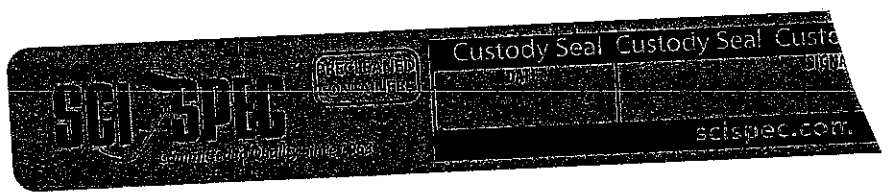
W AUS

LSO GROUND
END OF BUSINESS DAY DELIVERY

PRINT DATE: 3/30/2017
QUICKCODE: DHL
REF 1: 1D00V.0000

WEIGHT: 15.00LBS





DHL Analytical, Inc.

Sample Receipt Checklist

Client Name B-Environmental | Date Received: 3/31/2017

Work Order Number 1703260 | Received by JB

Checklist completed by: _____ 3/31/2017 (Signature / Date) | Reviewed by JW 3/31/2017 (Initials / Date)

Carrier name LoneStar

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	1.5 °C
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH<2 acceptable upon receipt?	Yes ☑	No ☐	NA ☐ LOT # 8086
	Adjusted? no		Checked by _____
Water - ph>9 (S) or ph>12 (CN) acceptable upon receipt?	Yes ☐	No ☐	NA ☑ LOT #
	Adjusted? _____		Checked by _____

Any No response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

DHL Analytical, Inc.

Date: *07-Apr-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Lab Order: 1703260

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition and Standard Methods.

For Metals analysis by method SW6020A the dissolved Lithium or Molybdenum results were slightly higher than the total Lithium or Molybdenum results for samples MW 10, PS 3, MW 9 and MW 9A. These are within the acceptable variation limits. No further corrective actions were taken.

All method blanks, sample duplicates, laboratory spikes, and/or matrix spikes met quality assurance objectives except where noted in the following. For Total Metals analysis by method SW6020A (batch 79805) the matrix spike and matrix spike duplicate recoveries were out of control limits for three analytes. These are flagged accordingly in the enclosed QC summary report. The "S" flag denotes spike recovery was outside control limits. The LCS was within control limits for these analytes. No further corrective actions were taken.

For Mercury analysis by method SW7470A the PDS recovery was slightly below control limits. This is flagged accordingly. The serial dilution was within control limits. No further corrective actions were taken.

DHL Analytical, Inc.

Date: *07-Apr-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW 10
Project:	Coleto Creek Power	**Lab ID:**	1703260-01
Project No:	CCR (53304)	**Alternate ID:**	S170891624
Lab Order:	1703260	**Collection Date:**	03/30/17 01:45 PM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	0.0193	0.00500	0.0100		mg/L	1	04/06/17 01:08 PM
Dissolved Molybdenum	0.0322	0.00200	0.00500		mg/L	1	04/06/17 01:08 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	04/04/17 11:11 AM
Arsenic	0.0110	0.00200	0.00500		mg/L	1	04/04/17 11:11 AM
Barium	0.0844	0.00300	0.0100		mg/L	1	04/04/17 11:11 AM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 11:11 AM
Boron	3.74	0.200	0.600		mg/L	20	04/05/17 11:08 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 11:11 AM
Calcium	92.1	2.00	6.00		mg/L	20	04/05/17 11:08 AM
Chromium	0.00321	0.00200	0.00500	J	mg/L	1	04/04/17 11:11 AM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	04/04/17 11:11 AM
Lead	0.000883	0.000300	0.00100	J	mg/L	1	04/04/17 11:11 AM
Lithium	0.0179	0.00500	0.0100		mg/L	1	04/04/17 11:11 AM
Magnesium	17.9	0.100	0.300		mg/L	1	04/04/17 11:11 AM
Molybdenum	0.0342	0.00200	0.00500		mg/L	1	04/04/17 11:11 AM
Potassium	1.29	0.100	0.300		mg/L	1	04/04/17 11:11 AM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	04/04/17 11:11 AM
Sodium	169	2.00	6.00		mg/L	20	04/05/17 11:08 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	04/04/17 11:11 AM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	04/05/17 10:40 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	307	10.0	20.0		mg/L @ pH 4.53	1	04/03/17 11:41 AM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	04/03/17 11:41 AM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	04/03/17 11:41 AM
Alkalinity, Total (As CaCO3)	307	20.0	20.0		mg/L @ pH 4.53	1	04/03/17 11:41 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *07-Apr-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW 10A
Project:	Coleto Creek Power	**Lab ID:**	1703260-02
Project No:	CCR (53304)	**Alternate ID:**	S17089162A
Lab Order:	1703260	**Collection Date:**	03/30/17 01:13 PM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	0.0218	0.00500	0.0100		mg/L	1	04/06/17 01:10 PM
Dissolved Molybdenum	0.0161	0.00200	0.00500		mg/L	1	04/06/17 01:10 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	04/04/17 11:13 AM
Arsenic	0.00503	0.00200	0.00500		mg/L	1	04/04/17 11:13 AM
Barium	0.110	0.00300	0.0100		mg/L	1	04/04/17 11:13 AM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 11:13 AM
Boron	1.53	0.200	0.600		mg/L	20	04/05/17 11:10 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 11:13 AM
Calcium	153	2.00	6.00		mg/L	20	04/05/17 11:10 AM
Chromium	0.00361	0.00200	0.00500	J	mg/L	1	04/04/17 11:13 AM
Cobalt	0.00387	0.00300	0.00500	J	mg/L	1	04/04/17 11:13 AM
Lead	0.000669	0.000300	0.00100	J	mg/L	1	04/04/17 11:13 AM
Lithium	0.0238	0.00500	0.0100		mg/L	1	04/04/17 11:13 AM
Magnesium	29.7	2.00	6.00		mg/L	20	04/05/17 11:10 AM
Molybdenum	0.0194	0.00200	0.00500		mg/L	1	04/04/17 11:13 AM
Potassium	2.03	0.100	0.300		mg/L	1	04/04/17 11:13 AM
Selenium	0.00231	0.00200	0.00500	J	mg/L	1	04/04/17 11:13 AM
Sodium	171	2.00	6.00		mg/L	20	04/05/17 11:10 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	04/04/17 11:13 AM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	04/05/17 10:53 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	324	10.0	20.0		mg/L @ pH 4.53	1	04/03/17 11:54 AM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	04/03/17 11:54 AM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	04/03/17 11:54 AM
Alkalinity, Total (As CaCO3)	324	20.0	20.0		mg/L @ pH 4.53	1	04/03/17 11:54 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *07-Apr-17*

CLIENT:	B-Environmental	**Client Sample ID:**	PS 3
Project:	Coleto Creek Power	**Lab ID:**	1703260-03
Project No:	CCR (53304)	**Alternate ID:**	S17089162B
Lab Order:	1703260	**Collection Date:**	03/30/17 08:36 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	0.00901	0.00500	0.0100	J	mg/L	1	04/06/17 01:12 PM
Dissolved Molybdenum	0.00548	0.00200	0.00500		mg/L	1	04/06/17 01:12 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	04/04/17 11:15 AM
Arsenic	0.00819	0.00200	0.00500		mg/L	1	04/04/17 11:15 AM
Barium	0.103	0.00300	0.0100		mg/L	1	04/04/17 11:15 AM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 11:15 AM
Boron	1.57	0.100	0.300		mg/L	10	04/05/17 11:12 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 11:15 AM
Calcium	41.7	1.00	3.00		mg/L	10	04/05/17 11:12 AM
Chromium	0.00327	0.00200	0.00500	J	mg/L	1	04/04/17 11:15 AM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	04/04/17 11:15 AM
Lead	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 11:15 AM
Lithium	0.00886	0.00500	0.0100	J	mg/L	1	04/04/17 11:15 AM
Magnesium	4.27	0.100	0.300		mg/L	1	04/04/17 11:15 AM
Molybdenum	0.00569	0.00200	0.00500		mg/L	1	04/04/17 11:15 AM
Potassium	2.40	0.100	0.300		mg/L	1	04/04/17 11:15 AM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	04/04/17 11:15 AM
Sodium	67.9	1.00	3.00		mg/L	10	04/05/17 11:12 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	04/04/17 11:15 AM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	04/05/17 10:55 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	169	10.0	20.0		mg/L @ pH 4.5	1	04/03/17 12:01 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.5	1	04/03/17 12:01 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.5	1	04/03/17 12:01 PM
Alkalinity, Total (As CaCO3)	169	20.0	20.0		mg/L @ pH 4.5	1	04/03/17 12:01 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *07-Apr-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW 9
Project:	Coleto Creek Power	**Lab ID:**	1703260-04
Project No:	CCR (53304)	**Alternate ID:**	S17089162C
Lab Order:	1703260	**Collection Date:**	03/30/17 09:45 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	0.00559	0.00500	0.0100	J	mg/L	1	04/06/17 01:13 PM
Dissolved Molybdenum	0.0776	0.00200	0.00500		mg/L	1	04/06/17 01:13 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	04/04/17 11:17 AM
Arsenic	0.00909	0.00200	0.00500		mg/L	1	04/04/17 11:17 AM
Barium	0.121	0.00300	0.0100		mg/L	1	04/04/17 11:17 AM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 11:17 AM
Boron	3.38	0.100	0.300		mg/L	10	04/05/17 11:14 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 11:17 AM
Calcium	54.5	1.00	3.00		mg/L	10	04/05/17 11:14 AM
Chromium	0.00220	0.00200	0.00500	J	mg/L	1	04/04/17 11:17 AM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	04/04/17 11:17 AM
Lead	0.00217	0.000300	0.00100		mg/L	1	04/04/17 11:17 AM
Lithium	0.00571	0.00500	0.0100	J	mg/L	1	04/04/17 11:17 AM
Magnesium	7.71	0.100	0.300		mg/L	1	04/04/17 11:17 AM
Molybdenum	0.0747	0.00200	0.00500		mg/L	1	04/04/17 11:17 AM
Potassium	1.04	0.100	0.300		mg/L	1	04/04/17 11:17 AM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	04/04/17 11:17 AM
Sodium	63.9	1.00	3.00		mg/L	10	04/05/17 11:14 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	04/04/17 11:17 AM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	04/05/17 10:57 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	139	10.0	20.0		mg/L @ pH 4.51	1	04/03/17 12:06 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	04/03/17 12:06 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	04/03/17 12:06 PM
Alkalinity, Total (As CaCO3)	139	20.0	20.0		mg/L @ pH 4.51	1	04/03/17 12:06 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *07-Apr-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW 9A
Project:	Coleto Creek Power	**Lab ID:**	1703260-05
Project No:	CCR (53304)	**Alternate ID:**	S17089162D
Lab Order:	1703260	**Collection Date:**	03/30/17 09:13 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	0.00644	0.00500	0.0100	J	mg/L	1	04/06/17 01:15 PM
Dissolved Molybdenum	0.0661	0.00200	0.00500		mg/L	1	04/06/17 01:15 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	04/04/17 11:19 AM
Arsenic	0.00950	0.00200	0.00500		mg/L	1	04/04/17 11:19 AM
Barium	0.0975	0.00300	0.0100		mg/L	1	04/04/17 11:19 AM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 11:19 AM
Boron	3.36	0.100	0.300		mg/L	10	04/05/17 11:16 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 11:19 AM
Calcium	49.3	1.00	3.00		mg/L	10	04/05/17 11:16 AM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	04/04/17 11:19 AM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	04/04/17 11:19 AM
Lead	0.00113	0.000300	0.00100		mg/L	1	04/04/17 11:19 AM
Lithium	0.00593	0.00500	0.0100	J	mg/L	1	04/04/17 11:19 AM
Magnesium	8.72	0.100	0.300		mg/L	1	04/04/17 11:19 AM
Molybdenum	0.0684	0.00200	0.00500		mg/L	1	04/04/17 11:19 AM
Potassium	0.863	0.100	0.300		mg/L	1	04/04/17 11:19 AM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	04/04/17 11:19 AM
Sodium	64.8	1.00	3.00		mg/L	10	04/05/17 11:16 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	04/04/17 11:19 AM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	04/05/17 11:00 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	136	10.0	20.0		mg/L @ pH 4.51	1	04/03/17 12:11 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	04/03/17 12:11 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	04/03/17 12:11 PM
Alkalinity, Total (As CaCO3)	136	20.0	20.0		mg/L @ pH 4.51	1	04/03/17 12:11 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *07-Apr-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW 5
Project:	Coleto Creek Power	**Lab ID:**	1703260-06
Project No:	CCR (53304)	**Alternate ID:**	S17089162E
Lab Order:	1703260	**Collection Date:**	03/30/17 10:58 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	0.0183	0.00500	0.0100		mg/L	1	04/06/17 01:17 PM
Dissolved Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	04/06/17 01:17 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	04/04/17 11:21 AM
Arsenic	0.00953	0.00200	0.00500		mg/L	1	04/04/17 11:21 AM
Barium	0.0748	0.00300	0.0100		mg/L	1	04/04/17 11:21 AM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 11:21 AM
Boron	0.110	0.0100	0.0300		mg/L	1	04/05/17 01:23 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	04/04/17 11:21 AM
Calcium	110	2.00	6.00		mg/L	20	04/05/17 11:18 AM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	04/04/17 11:21 AM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	04/04/17 11:21 AM
Lead	0.000362	0.000300	0.00100	J	mg/L	1	04/04/17 11:21 AM
Lithium	0.0192	0.00500	0.0100		mg/L	1	04/04/17 11:21 AM
Magnesium	23.3	0.100	0.300		mg/L	1	04/04/17 11:21 AM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	04/04/17 11:21 AM
Potassium	1.58	0.100	0.300		mg/L	1	04/04/17 11:21 AM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	04/04/17 11:21 AM
Sodium	131	2.00	6.00		mg/L	20	04/05/17 11:18 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	04/04/17 11:21 AM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	04/05/17 11:02 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	286	10.0	20.0		mg/L @ pH 4.51	1	04/03/17 12:23 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	04/03/17 12:23 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	04/03/17 12:23 PM
Alkalinity, Total (As CaCO3)	286	20.0	20.0		mg/L @ pH 4.51	1	04/03/17 12:23 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

CLIENT: B-Environmental
Work Order: 1703260
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_170405A

The QC data in batch 79830 applies to the following samples: 1703260-01A, 1703260-02A, 1703260-03A, 1703260-04A, 1703260-05A, 1703260-06A

Sample ID **MB-79830** Batch ID: **79830** TestNo: **SW7470A** Units: **mg/L**
SampType: **MBLK** Run ID: **CETAC2_HG_170405A** Analysis Date: **4/5/2017 10:02:26 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.0000800	0.000200								

Sample ID **LCS-79830** Batch ID: **79830** TestNo: **SW7470A** Units: **mg/L**
SampType: **LCS** Run ID: **CETAC2_HG_170405A** Analysis Date: **4/5/2017 10:06:58 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00208	0.000200	0.00200	0	104	85	115			

Sample ID **LCSD-79830** Batch ID: **79830** TestNo: **SW7470A** Units: **mg/L**
SampType: **LCSD** Run ID: **CETAC2_HG_170405A** Analysis Date: **4/5/2017 10:09:15 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00192	0.000200	0.00200	0	96.0	85	115	8.00	15	

Sample ID **1703259-05A SD** Batch ID: **79830** TestNo: **SW7470A** Units: **mg/L**
SampType: **SD** Run ID: **CETAC2_HG_170405A** Analysis Date: **4/5/2017 10:27:21 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.000400	0.00100	0	0				0	10	

Sample ID **1703259-05A PDS** Batch ID: **79830** TestNo: **SW7470A** Units: **mg/L**
SampType: **PDS** Run ID: **CETAC2_HG_170405A** Analysis Date: **4/5/2017 10:29:37 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00209	0.000200	0.00250	0	83.6	85	115			S

Sample ID **1703259-05A MS** Batch ID: **79830** TestNo: **SW7470A** Units: **mg/L**
SampType: **MS** Run ID: **CETAC2_HG_170405A** Analysis Date: **4/5/2017 10:31:53 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00170	0.000200	0.00200	0	85.0	80	120			

Sample ID **1703259-05A MSD** Batch ID: **79830** TestNo: **SW7470A** Units: **mg/L**
SampType: **MSD** Run ID: **CETAC2_HG_170405A** Analysis Date: **4/5/2017 10:34:09 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00176	0.000200	0.00200	0	88.0	80	120	3.47	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1703260
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170404A

The QC data in batch 79805 applies to the following samples: 1703260-01A, 1703260-02A, 1703260-03A, 1703260-04A, 1703260-05A, 1703260-06A

Sample ID **MB-79805**	Batch ID: **79805**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **MBLK**	Run ID: **ICP-MS4_170404A**	Analysis Date: **4/4/2017 10:24:00 AM**	Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.000800	0.00250								
Arsenic	<0.00200	0.00500								
Barium	<0.00300	0.0100								
Beryllium	<0.000300	0.00100								
Cadmium	<0.000300	0.00100								
Calcium	<0.100	0.300								
Chromium	<0.00200	0.00500								
Cobalt	<0.00300	0.00500								
Lead	<0.000300	0.00100								
Lithium	<0.00500	0.0100								
Magnesium	<0.100	0.300								
Molybdenum	<0.00200	0.00500								
Potassium	<0.100	0.300								
Selenium	<0.00200	0.00500								
Sodium	<0.100	0.300								
Thallium	<0.000500	0.00150								

Sample ID **LCS-79805**	Batch ID: **79805**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **LCS**	Run ID: **ICP-MS4_170404A**	Analysis Date: **4/4/2017 10:26:00 AM**	Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.192	0.00250	0.200	0	96.1	80	120			
Arsenic	0.198	0.00500	0.200	0	99.0	80	120			
Barium	0.197	0.0100	0.200	0	98.3	80	120			
Beryllium	0.203	0.00100	0.200	0	102	80	120			
Cadmium	0.200	0.00100	0.200	0	100	80	120			
Calcium	4.63	0.300	5.00	0	92.6	80	120			
Chromium	0.205	0.00500	0.200	0	102	80	120			
Cobalt	0.207	0.00500	0.200	0	104	80	120			
Lead	0.198	0.00100	0.200	0	99.1	80	120			
Lithium	0.200	0.0100	0.200	0	99.9	80	120			
Magnesium	4.94	0.300	5.00	0	98.8	80	120			
Molybdenum	0.193	0.00500	0.200	0	96.4	80	120			
Potassium	4.88	0.300	5.00	0	97.6	80	120			
Selenium	0.202	0.00500	0.200	0	101	80	120			
Sodium	4.98	0.300	5.00	0	99.5	80	120			
Thallium	0.197	0.00150	0.200	0	98.5	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1703260
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170404A

Sample ID **LCSD-79805**	Batch ID: **79805**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **LCSD**	Run ID: **ICP-MS4_170404A**	Analysis Date: **4/4/2017 10:28:00 AM**	Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.194	0.00250	0.200	0	97.1	80	120	1.04	15	
Arsenic	0.199	0.00500	0.200	0	99.6	80	120	0.627	15	
Barium	0.200	0.0100	0.200	0	100	80	120	1.76	15	
Beryllium	0.210	0.00100	0.200	0	105	80	120	3.00	15	
Cadmium	0.203	0.00100	0.200	0	102	80	120	1.58	15	
Calcium	4.65	0.300	5.00	0	92.9	80	120	0.371	15	
Chromium	0.207	0.00500	0.200	0	103	80	120	0.840	15	
Cobalt	0.208	0.00500	0.200	0	104	80	120	0.154	15	
Lead	0.200	0.00100	0.200	0	100	80	120	1.06	15	
Lithium	0.206	0.0100	0.200	0	103	80	120	3.17	15	
Magnesium	5.00	0.300	5.00	0	100	80	120	1.28	15	
Molybdenum	0.197	0.00500	0.200	0	98.4	80	120	1.99	15	
Potassium	4.94	0.300	5.00	0	98.8	80	120	1.19	15	
Selenium	0.202	0.00500	0.200	0	101	80	120	0.072	15	
Sodium	4.99	0.300	5.00	0	99.7	80	120	0.204	15	
Thallium	0.199	0.00150	0.200	0	99.3	80	120	0.833	15	

Sample ID **1703259-05A SD**	Batch ID: **79805**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **SD**	Run ID: **ICP-MS4_170404A**	Analysis Date: **4/4/2017 10:34:00 AM**	Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.00400	0.0125	0	0				0	10	
Arsenic	<0.0100	0.0250	0	0.00827				0	10	
Barium	0.0897	0.0500	0	0.0900				0.327	10	
Beryllium	<0.00150	0.00500	0	0				0	10	
Cadmium	<0.00150	0.00500	0	0				0	10	
Chromium	<0.0100	0.0250	0	0				0	10	
Cobalt	<0.0150	0.0250	0	0				0	10	
Lead	<0.00150	0.00500	0	0.000996				0	10	
Lithium	<0.0250	0.0500	0	0.00981				0	10	
Magnesium	9.69	1.50	0	9.30				4.14	10	
Molybdenum	<0.0100	0.0250	0	0.00749				0	10	
Potassium	0.930	1.50	0	0.918				1.27	10	
Selenium	<0.0100	0.0250	0	0				0	10	
Thallium	<0.00250	0.00750	0	0				0	10	

Sample ID **1703259-05A PDS**	Batch ID: **79805**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **PDS**	Run ID: **ICP-MS4_170404A**	Analysis Date: **4/4/2017 10:53:00 AM**	Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.205	0.00250	0.200	0	102	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1703260
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170404A

Sample ID **1703259-05A PDS**	Batch ID: **79805**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **PDS**	Run ID: **ICP-MS4_170404A**	Analysis Date: **4/4/2017 10:53:00 AM**	Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.204	0.00500	0.200	0.00827	98.0	80	120			
Barium	0.292	0.0100	0.200	0.0900	101	80	120			
Beryllium	0.192	0.00100	0.200	0	95.9	80	120			
Cadmium	0.198	0.00100	0.200	0	98.9	80	120			
Chromium	0.203	0.00500	0.200	0	102	80	120			
Cobalt	0.204	0.00500	0.200	0	102	80	120			
Lead	0.201	0.00100	0.200	0.000996	100	80	120			
Lithium	0.200	0.0100	0.200	0.00981	95.3	80	120			
Magnesium	13.8	0.300	5.00	9.29	90.4	80	120			
Molybdenum	0.199	0.00500	0.200	0.00749	96.0	80	120			
Potassium	5.97	0.300	5.00	0.918	101	80	120			
Selenium	0.200	0.00500	0.200	0	99.9	80	120			
Thallium	0.197	0.00150	0.200	0	98.7	80	120			

Sample ID **1703259-05A MS**	Batch ID: **79805**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **MS**	Run ID: **ICP-MS4_170404A**	Analysis Date: **4/4/2017 10:55:00 AM**	Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.193	0.00250	0.200	0	96.4	80	120			
Arsenic	0.205	0.00500	0.200	0.00827	98.3	80	120			
Barium	0.288	0.0100	0.200	0.0900	98.9	80	120			
Beryllium	0.188	0.00100	0.200	0	94.1	80	120			
Cadmium	0.194	0.00100	0.200	0	97.2	80	120			
Calcium	77.2	0.300	5.00	73.8	67.5	80	120			S
Chromium	0.197	0.00500	0.200	0	98.5	80	120			
Cobalt	0.201	0.00500	0.200	0	101	80	120			
Lead	0.201	0.00100	0.200	0.000996	100	80	120			
Lithium	0.197	0.0100	0.200	0.00981	93.6	80	120			
Magnesium	13.9	0.300	5.00	9.29	91.6	80	120			
Molybdenum	0.199	0.00500	0.200	0.00749	95.9	80	120			
Potassium	5.84	0.300	5.00	0.918	98.5	80	120			
Selenium	0.203	0.00500	0.200	0	101	80	120			
Sodium	72.8	0.300	5.00	69.6	63.8	80	120			S
Thallium	0.199	0.00150	0.200	0	99.5	80	120			

Sample ID **1703259-05A MSD**	Batch ID: **79805**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **MSD**	Run ID: **ICP-MS4_170404A**	Analysis Date: **4/4/2017 10:57:00 AM**	Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.194	0.00250	0.200	0	97.2	80	120	0.870	15	
Arsenic	0.205	0.00500	0.200	0.00827	98.3	80	120	0.030	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1703260
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170404A

Sample ID **1703259-05A MSD** Batch ID: **79805** TestNo: **SW6020A** Units: **mg/L**
SampType: **MSD** Run ID: **ICP-MS4_170404A** Analysis Date: **4/4/2017 10:57:00 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.292	0.0100	0.200	0.0900	101	80	120	1.28	15	
Beryllium	0.189	0.00100	0.200	0	94.4	80	120	0.266	15	
Cadmium	0.196	0.00100	0.200	0	97.8	80	120	0.688	15	
Calcium	77.7	0.300	5.00	73.8	78.1	80	120	0.682	15	S
Chromium	0.197	0.00500	0.200	0	98.6	80	120	0.111	15	
Cobalt	0.201	0.00500	0.200	0	100	80	120	0.113	15	
Lead	0.203	0.00100	0.200	0.000996	101	80	120	0.632	15	
Lithium	0.195	0.0100	0.200	0.00981	92.8	80	120	0.755	15	
Magnesium	13.9	0.300	5.00	9.29	91.7	80	120	0.042	15	
Molybdenum	0.201	0.00500	0.200	0.00749	96.7	80	120	0.821	15	
Potassium	5.82	0.300	5.00	0.918	98.0	80	120	0.448	15	
Selenium	0.203	0.00500	0.200	0	101	80	120	0.150	15	
Sodium	72.5	0.300	5.00	69.6	56.5	80	120	0.499	15	S
Thallium	0.200	0.00150	0.200	0	100	80	120	0.520	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1703260
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170405A

The QC data in batch 79805 applies to the following samples: 1703260-01A, 1703260-02A, 1703260-03A, 1703260-04A, 1703260-05A, 1703260-06A

Sample ID **MB-79805** Batch ID: **79805** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS4_170405A** Analysis Date: **4/5/2017 10:24:00 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	<0.0100	0.0300								

Sample ID **LCS-79805** Batch ID: **79805** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS4_170405A** Analysis Date: **4/5/2017 10:26:00 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.205	0.0300	0.200	0	102	80	120			

Sample ID **LCSD-79805** Batch ID: **79805** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS4_170405A** Analysis Date: **4/5/2017 10:28:00 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.206	0.0300	0.200	0	103	80	120	0.589	15	

Sample ID **1703259-05A SD** Batch ID: **79805** TestNo: **SW6020A** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS4_170405A** Analysis Date: **4/5/2017 10:34:00 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	1.73	1.50	0	1.67				3.63	10	
Calcium	75.3	15.0	0	73.9				1.92	10	
Sodium	74.3	15.0	0	71.6				3.69	10	

Sample ID **1703259-05A PDS** Batch ID: **79805** TestNo: **SW6020A** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS4_170405A** Analysis Date: **4/5/2017 10:54:00 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	3.88	0.300	2.00	1.67	110	80	120			
Calcium	124	3.00	50.0	73.9	100	80	120			
Sodium	127	3.00	50.0	71.6	111	80	120			

Sample ID **1703259-05A MS** Batch ID: **79805** TestNo: **SW6020A** Units: **mg/L**
SampType: **MS** Run ID: **ICP-MS4_170405A** Analysis Date: **4/5/2017 10:56:00 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	1.94	0.300	0.200	1.67	137	80	120			S

Sample ID **1703259-05A MSD** Batch ID: **79805** TestNo: **SW6020A** Units: **mg/L**
SampType: **MSD** Run ID: **ICP-MS4_170405A** Analysis Date: **4/5/2017 10:58:00 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL
DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1703260
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170405A

Sample ID **1703259-05A MSD**	Batch ID: **79805**	TestNo: **SW6020A**	Units: **mg/L**		
SampType: **MSD**	Run ID: **ICP-MS4_170405A**	Analysis Date: **4/5/2017 10:58:00 AM**	Prep Date: **4/3/2017**		

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	1.91	0.300	0.200	1.67	123	80	120	1.50	15	S

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1703260
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170406B

The QC data in batch 79865 applies to the following samples: 1703260-01B, 1703260-02B, 1703260-03B, 1703260-04B, 1703260-05B, 1703260-06B

Sample ID **MB-79865**	Batch ID: **79865**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **MBLK**	Run ID: **ICP-MS5_170406B**	Analysis Date: **4/6/2017 12:30:00 PM**	Prep Date: **4/5/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.00500	0.0100								
Molybdenum	<0.00200	0.00500								

Sample ID **LCS-79865**	Batch ID: **79865**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **LCS**	Run ID: **ICP-MS5_170406B**	Analysis Date: **4/6/2017 12:31:00 PM**	Prep Date: **4/5/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.200	0.0100	0.200	0	100	80	120			
Molybdenum	0.190	0.00500	0.200	0	94.8	80	120			

Sample ID **LCSD-79865**	Batch ID: **79865**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **LCSD**	Run ID: **ICP-MS5_170406B**	Analysis Date: **4/6/2017 12:33:00 PM**	Prep Date: **4/5/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.206	0.0100	0.200	0	103	80	120	3.04	15	
Molybdenum	0.193	0.00500	0.200	0	96.5	80	120	1.82	15	

Sample ID **1703259-05B SD**	Batch ID: **79865**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **SD**	Run ID: **ICP-MS5_170406B**	Analysis Date: **4/6/2017 12:38:00 PM**	Prep Date: **4/5/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.0250	0.0500	0	0.00925				0	10	
Molybdenum	<0.0100	0.0250	0	0.00693				0	10	

Sample ID **1703259-05B PDS**	Batch ID: **79865**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **PDS**	Run ID: **ICP-MS5_170406B**	Analysis Date: **4/6/2017 12:56:00 PM**	Prep Date: **4/5/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.202	0.0100	0.200	0.00925	96.4	80	120			
Molybdenum	0.193	0.00500	0.200	0.00693	92.9	80	120			

Sample ID **1703259-05B MS**	Batch ID: **79865**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **MS**	Run ID: **ICP-MS5_170406B**	Analysis Date: **4/6/2017 12:58:00 PM**	Prep Date: **4/5/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.205	0.0100	0.200	0.00925	97.8	80	120			
Molybdenum	0.198	0.00500	0.200	0.00693	95.4	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL
DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1703260
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170406B

Sample ID **1703259-05B MSD**	Batch ID: **79865**	TestNo: **SW6020A**	Units: **mg/L**		
SampType: **MSD**	Run ID: **ICP-MS5_170406B**	Analysis Date: **4/6/2017 12:59:00 PM**	Prep Date: **4/5/2017**		

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.197	0.0100	0.200	0.00925	93.8	80	120	3.99	15	
Molybdenum	0.198	0.00500	0.200	0.00693	95.3	80	120	0.079	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1703260
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_170403A

The QC data in batch 79803 applies to the following samples: 1703260-01C, 1703260-02C, 1703260-03C, 1703260-04C, 1703260-05C, 1703260-06C

Sample ID **MB-79803** Batch ID: **79803** TestNo: **M2320 B** Units: **mg/L @ pH 4.34**
SampType: **MBLK** Run ID: **TITRATOR_170403A** Analysis Date: **4/3/2017 9:09:00 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0								
Alkalinity, Total (As CaCO3)	<20.0	20.0								

Sample ID **LCS-79803** Batch ID: **79803** TestNo: **M2320 B** Units: **mg/L @ pH 4.22**
SampType: **LCS** Run ID: **TITRATOR_170403A** Analysis Date: **4/3/2017 9:13:00 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	50.2	20.0	50.00	0	100	74	129			

Sample ID **1703258-01C-DUP** Batch ID: **79803** TestNo: **M2320 B** Units: **mg/L @ pH 4.5**
SampType: **DUP** Run ID: **TITRATOR_170403A** Analysis Date: **4/3/2017 10:04:00 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	111	20.0	0	113.7				2.76	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	111	20.0	0	113.7				2.76	20	

Sample ID **1703259-05C-DUP** Batch ID: **79803** TestNo: **M2320 B** Units: **mg/L @ pH 4.52**
SampType: **DUP** Run ID: **TITRATOR_170403A** Analysis Date: **4/3/2017 11:06:00 AM** Prep Date: **4/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	180	20.0	0	181.2				0.720	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	180	20.0	0	181.2				0.720	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

Sample Summary Report

B Environmental, LLC.
1606 E Brazos Suite D
Victoria, TX 77901

Approved By: Kevin C Baros:

Sample ID:	S170871632	**Client ID:**	Blank	**Sampler:**	Client
Type:	Grab				
Client:	Coleto Creek Power - R Coleman			**Status:**	Normal
Matrix:	Water				
Study:	Water			**Batch No:**	53213
Project:	Coleto Creek - CCR			**Sampled:**	3/28/2017 3:26 PM
Location:	Blank			**Completed:**	
Notes:					

Conclusions:

Analyte	Date	Time	Result	Units	LOQ	S/ Out	Laboratory
.- Chloride, IC	3/30/2017	2:24 am	< 1	mg/L	1	☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate				mg/L	10	☑	
Alkalinity, Carbonate				mg/L	10	☑	
Alkalinity, Total				mg/L	10	☑	
Fluoride, IC	3/30/2017	2:24 am	< 0.25	mg/L	0.25	☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	3/28/2017	5:20 pm	5.47	SU	2	☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	3/31/2017	5:00 pm	< 25	mg/L	10	☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals				#	1	☑	
Sulfate, IC	3/30/2017	2:24 am	< 1	mg/L	1	☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.				#	1	☑	

Sample ID:	S170871635	**Client ID:**	MW 8	**Sampler:**	Client
Client:	Coleto Creek Power - R Coleman			**Status:**	Normal
Study:	Water			**Batch No:**	53213
Project:	Coleto Creek - CCR			**Sampled:**	3/28/2017 3:06 PM
Location:	MW #8			**Completed:**	
Notes:					

Conclusions:

Analyte	Date	Time	Result	Units	LOQ	S/ Out	Laboratory
.- Chloride, IC	3/29/2017	3:36 pm	79	mg/L	1	☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate				mg/L	10	☑	
Alkalinity, Carbonate				mg/L	10	☑	
Alkalinity, Total				mg/L	10	☑	
Fluoride, IC	3/29/2017	3:36 pm	0.49	mg/L	0.25	☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	3/28/2017	5:20 pm	6.94	SU	2	☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	3/31/2017	5:00 pm	626	mg/L	10	☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals				#	1	☑	
Sulfate, IC	3/29/2017	3:36 pm	76	mg/L	1	☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.				#	1	☑	

Sample ID:	S170871637	**Client ID:**	Dup	**Sampler:**	Client
Type:	Grab				
Client:	Coleto Creek Power - R Coleman			**Status:**	Normal
Matrix:	Water				
Study:	Water			**Batch No:**	53213
Project:	Coleto Creek - CCR			**Sampled:**	3/28/2017 12:00 AM
Location:	Dup			**Completed:**	
Notes:					

Conclusions:

Analyte	Date	Time	Result	Units	LOQ	S/ Out	Laboratory
.- Chloride, IC	3/29/2017	8:03 pm	79	mg/L	1	☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate				mg/L	10	☑	
Alkalinity, Carbonate				mg/L	10	☑	
Alkalinity, Total				mg/L	10	☑	
Fluoride, IC	3/29/2017	8:03 pm	0.48	mg/L	0.25	☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	3/28/2017	5:20 pm	6.93	SU	2	☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	3/31/2017	5:00 pm	628	mg/L	10	☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals				#	1	☑	
Sulfate, IC	3/29/2017	8:03 pm	76	mg/L	1	☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.				#	1	☑	

Sample ID:	S170871638	Client ID:	MW 4	Sampler:	Client
Type:	Grab				
Client:	Coleto Creek Power - R Coleman			Status:	Normal
Matrix:	Water				
Study:	Water			Batch No:	53213
Project:	Coleto Creek - CCR			Sampled:	3/28/2017 11:27 AM
Location:	MW #4			Completed:	
Notes:					

Conclusions:

Analyte	Date	Time	Result	Units	LOQ	S/ Out	Laboratory
.- Chloride, IC	3/30/2017	1:07 am	102	mg/L	1	☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate				mg/L	10	☑	
Alkalinity, Carbonate				mg/L	10	☑	
Alkalinity, Total				mg/L	10	☑	
Fluoride, IC	3/30/2017	1:07 am	0.61	mg/L	0.25	☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	3/28/2017	5:20 pm	6.96	SU	2	☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	3/31/2017	5:00 pm	794	mg/L	10	☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals				#	1	☑	
Sulfate, IC	3/30/2017	1:07 am	157	mg/L	1	☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.				#	1	☑	

Sample ID: S17087163A Client ID: BV 15 Sampler: Client Type: Grab

Client: Coleto Creek Power - R Coleman Status: Normal Matrix: Water

Study: Water Batch No: 53213

Project: Coleto Creek - CCR Sampled: 3/28/2017 1:08 PM

Location: BV 15 Completed:

Notes:

Conclusions:

Analyte	Date	Time	Result	Units	LOQ	S/ Out	Laboratory
.- Chloride, IC	3/29/2017	6:08 pm	64	mg/L	1	☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate				mg/L	10	☑	
Alkalinity, Carbonate				mg/L	10	☑	
Alkalinity, Total				mg/L	10	☑	
Fluoride, IC	3/29/2017	6:08 pm	0.82	mg/L	0.25	☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	3/28/2017	5:20 pm	7.31	SU	2	☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	3/31/2017	5:00 pm	550	mg/L	10	☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals				#	1	☑	
Sulfate, IC	3/29/2017	6:08 pm	96	mg/L	1	☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.				#	1	☑	

Sample ID:	S17087163B	Client ID:	BV 21	Sampler:	Client
Client:	Coleto Creek Power - R Coleman			Status:	Normal
Study:	Water			Batch No:	53213
Project:	Coleto Creek - CCR			Sampled:	3/28/2017 1:48 PM
Location:	BV 21			Completed:	

Type: Grab

Matrix: Water

Notes:

Conclusions:

Analyte	Date	Time	Result	Units	LOQ	S/ Out	Laboratory
.- Chloride, IC	3/29/2017	9:57 pm	36	mg/L	1	☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate				mg/L	10	☑	
Alkalinity, Carbonate				mg/L	10	☑	
Alkalinity, Total				mg/L	10	☑	
Fluoride, IC	3/29/2017	9:57 pm	0.61	mg/L	0.25	☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	3/28/2017	5:20 pm	7.07	SU	2	☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	3/31/2017	5:00 pm	490	mg/L	10	☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals				#	1	☑	
Sulfate, IC	3/29/2017	9:57 pm	69	mg/L	1	☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.				#	1	☑	

Sample ID:	S17087163C	**Client ID:**	BV 22	**Sampler:**	Client
Type:	Grab				
Client:	Coleto Creek Power - R Coleman			**Status:**	Normal
Matrix:	Water				
Study:	Water			**Batch No:**	53213
Project:	Coleto Creek - CCR			**Sampled:**	3/28/2017 2:31 PM
Location:	BV 22			**Completed:**	
Notes:					

Conclusions:

Analyte	Date	Time	Result	Units	LOQ	S/ Out	Laboratory
.- Chloride, IC	3/30/2017	4:18 am	29	mg/L	1	☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate				mg/L	10	☑	
Alkalinity, Carbonate				mg/L	10	☑	
Alkalinity, Total				mg/L	10	☑	
Fluoride, IC	3/30/2017	4:18 am	0.52	mg/L	0.25	☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	3/28/2017	5:20 pm	7.15	SU	2	☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	3/31/2017	5:00 pm	452	mg/L	10	☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals				#	1	☑	
Sulfate, IC	3/30/2017	4:18 am	48	mg/L	1	☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.				#	1	☑	

Sample ID:	S170881623	**Client ID:**	BV-19	**Sampler:**	Client
Type:	Grab				
Client:	Coleto Creek Power - R Coleman			**Status:**	Normal
Matrix:	Water				
Study:	Water			**Batch No:**	53245
Project:	Coleto Creek - CCR			**Sampled:**	3/29/2017 9:56 AM
Location:	BV-19			**Completed:**	
Notes:					

Conclusions:

Analyte	Date	Time	Result	Units	LOQ	S/ Out	Laboratory
.- Chloride, IC	3/30/2017	9:18 pm	94	mg/L	1	☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate				mg/L	10	☑	
Alkalinity, Carbonate				mg/L	10	☑	
Alkalinity, Total				mg/L	10	☑	
Fluoride, IC	3/30/2017	9:18 pm	0.53	mg/L	0.25	☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	3/29/2017	4:45 pm	7.14	SU	2	☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	4/3/2017	4:00 pm	546	mg/L	10	☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals				#	1	☑	
Sulfate, IC	3/30/2017	9:18 pm	43	mg/L	1	☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.				#	1	☑	

Sample ID:	S17088162A	**Client ID:**	BV-10	**Sampler:**	Client
Type:	Grab				
Client:	Coleto Creek Power - R Coleman			**Status:**	Normal
Matrix:	Water				
Study:	Water			**Batch No:**	53245
Project:	Coleto Creek - CCR			**Sampled:**	3/29/2017 10:38 AM
Location:	BV-10			**Completed:**	
Notes:					

Conclusions:

Analyte	Date	Time	Result	Units	LOQ	S/ Out	Laboratory
.- Chloride, IC	3/30/2017	11:50 pm	86	mg/L	1	☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate				mg/L	10	☑	
Alkalinity, Carbonate				mg/L	10	☑	
Alkalinity, Total				mg/L	10	☑	
Fluoride, IC	3/30/2017	11:50 pm	0.81	mg/L	0.25	☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	3/29/2017	4:45 pm	7.73	SU	2	☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	4/3/2017	4:00 pm	618	mg/L	10	☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals				#	1	☑	
Sulfate, IC	3/30/2017	11:50 pm	86	mg/L	1	☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.				#	1	☑	

Sample ID:	S17088162B	Client ID:	BV-5	Sampler:	Client	Type:	Grab
Client:	Coleto Creek Power - R Coleman			Status:	Normal	Matrix:	Water
Study:	Water			Batch No:	53245		
Project:	Coleto Creek - CCR			Sampled:	3/29/2017	12:45 PM	
Location:	BV-5			Completed:			
Notes:							

Conclusions:

Analyte	Date	Time	Result	Units	LOQ	S/ Out	Laboratory
.- Chloride, IC	3/30/2017	11:12 pm	118	mg/L	1	☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate				mg/L	10	☑	
Alkalinity, Carbonate				mg/L	10	☑	
Alkalinity, Total				mg/L	10	☑	
Fluoride, IC	3/30/2017	11:12 pm	0.54	mg/L	0.25	☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	3/29/2017	4:45 pm	7.19	SU	2	☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	4/3/2017	4:00 pm	860	mg/L	10	☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals				#	1	☑	
Sulfate, IC	3/30/2017	11:12 pm	147	mg/L	1	☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.				#	1	☑	

Sample ID:	S17088162C	Client ID:	BV-1	Sampler:	Client	Type:	Grab
Client:	Coleto Creek Power - R Coleman			Status:	Normal	Matrix:	Water
Study:	Water			Batch No:	53245		
Project:	Coleto Creek - CCR			Sampled:	3/29/2017 1:21 PM		
Location:	BV-1			Completed:			

Notes:

Conclusions:

Analyte	Date	Time	Result	Units	LOQ	S/ Out	Laboratory
.- Chloride, IC	3/30/2017	6:45 pm	138	mg/L	1	☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate				mg/L	10	☑	
Alkalinity, Carbonate				mg/L	10	☑	
Alkalinity, Total				mg/L	10	☑	
Fluoride, IC	3/30/2017	6:45 pm	0.8	mg/L	0.25	☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	3/29/2017	4:45 pm	7.53	SU	2	☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	4/3/2017	4:00 pm	956	mg/L	10	☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals				#	1	☑	
Sulfate, IC	3/30/2017	6:45 pm	185	mg/L	1	☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.				#	1	☑	

Sample ID:	S17088162D	**Client ID:**	MW-6	**Sampler:**	Client
Type:	Grab				
Client:	Coleto Creek Power - R Coleman			**Status:**	Normal
Matrix:	Water				
Study:	Water			**Batch No:**	53245
Project:	Coleto Creek - CCR			**Sampled:**	3/29/2017 2:16 PM
Location:	MW #6			**Completed:**	
Notes:					

Conclusions:

Analyte	Date	Time	Result	Units	LOQ	S/ Out	Laboratory
.- Chloride, IC	3/30/2017	4:51 pm	69	mg/L	1	☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate				mg/L	10	☐	
Alkalinity, Carbonate				mg/L	10	☐	
Alkalinity, Total				mg/L	10	☐	
Fluoride, IC	3/30/2017	4:51 pm	0.38	mg/L	0.25	☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	3/29/2017	4:45 pm	7.41	SU	2	☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	4/3/2017	4:00 pm	510	mg/L	10	☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals				#	1	☑	
Sulfate, IC	3/30/2017	4:51 pm	99	mg/L	1	☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.				#	1	☑	

Sample ID:	S17088162E	**Client ID:**	MW-7	**Sampler:**	Client
Client:	Coleto Creek Power - R Coleman			**Status:**	Normal
Study:	Water			**Batch No:**	53245
Project:	Coleto Creek - CCR			**Sampled:**	3/29/2017 3:01 PM
Location:	MW #7			**Completed:**	
Notes:					

Conclusions:

Analyte	Date	Time	Result	Units	LOQ	S/ Out	Laboratory
.- Chloride, IC	3/31/2017	1:44 am	91	mg/L	1	☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate				mg/L	10	☑	
Alkalinity, Carbonate				mg/L	10	☑	
Alkalinity, Total				mg/L	10	☑	
Fluoride, IC	3/31/2017	1:44 am	0.6	mg/L	0.25	☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	3/29/2017	4:45 pm	7.42	SU	2	☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	4/3/2017	4:00 pm	560	mg/L	10	☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals				#	1	☑	
Sulfate, IC	3/31/2017	1:44 am	75	mg/L	1	☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.				#	1	☑	

Sample ID:	S17088162F	**Client ID:**	Dup	**Sampler:**	Client
Client:	Coleto Creek Power - R Coleman			**Status:**	Normal
Study:	Water			**Batch No:**	53245
Project:	Coleto Creek - CCR			**Sampled:**	3/29/2017 12:00 AM
Location:	Dup			**Completed:**	
Notes:					

Conclusions:

Analyte	Date	Time	Result	Units	LOQ	S/ Out	Laboratory
.- Chloride, IC	3/31/2017	2:22 am	91	mg/L	1	☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate				mg/L	10	☑	
Alkalinity, Carbonate				mg/L	10	☑	
Alkalinity, Total				mg/L	10	☑	
Fluoride, IC	3/31/2017	2:22 am	0.59	mg/L	0.25	☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	3/29/2017	4:45 pm	7.37	SU	2	☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	4/3/2017	4:00 pm	568	mg/L	10	☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals				#	1	☑	
Sulfate, IC	3/31/2017	2:22 am	75	mg/L	1	☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.				#	1	☑	

Sample ID:	S170891624	Client ID:	MW 10	Sampler:	Client
Client:	Coleto Creek Power - R Coleman			Status:	Normal
Study:	Water			Batch No:	53304
Project:	Coleto Creek - CCR			Sampled:	3/30/2017 1:45 PM
Location:	MW #10			Completed:	

Type: Grab

Matrix: Water

Notes:

Conclusions:

Analyte	Date	Time	Result	Units	LOQ	S/ Out	Laboratory
.- Chloride, IC	3/31/2017	3:39 am	151	mg/L	1	☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate				mg/L	10	☑	
Alkalinity, Carbonate				mg/L	10	☑	
Alkalinity, Total				mg/L	10	☑	
Fluoride, IC	3/31/2017	3:39 am	0.54	mg/L	0.25	☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	3/30/2017	4:55 pm	7.28	SU	2	☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	4/3/2017	4:00 pm	804	mg/L	10	☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals				#	1	☑	
Sulfate, IC	3/31/2017	3:39 am	130	mg/L	1	☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.				#	1	☑	

Sample ID:	S17089162A	Client ID:	MW 10A	Sampler:	Client
Client:	Coleto Creek Power - R Coleman			Status:	Normal
Study:	Water			Batch No:	53304
Project:	Coleto Creek - CCR			Sampled:	3/30/2017 1:13 PM
Location:	MW 10A			Completed:	

Type: Grab
Matrix: Water

Notes:

Conclusions:

Analyte	Date	Time	Result	Units	LOQ	S/ Out	Laboratory
.- Chloride, IC	3/31/2017	6:49 am	332	mg/L	1	☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate				mg/L	10	☑	
Alkalinity, Carbonate				mg/L	10	☑	
Alkalinity, Total				mg/L	10	☑	
Fluoride, IC	3/31/2017	6:49 am	0.47	mg/L	0.25	☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	3/30/2017	4:55 pm	7.03	SU	2	☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	4/5/2017	9:00 am	1088	mg/L	10	☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals				#	1	☑	
Sulfate, IC	3/31/2017	6:49 am	83	mg/L	1	☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.				#	1	☑	

Sample ID:	S17089162B	Client ID:	PS 3	Sampler:	Client
Client:	Coleto Creek Power - R Coleman			Status:	Normal
Study:	Water			Batch No:	53304
Project:	Coleto Creek - CCR			Sampled:	3/30/2017 8:36 AM
Location:	PS 3			Completed:	
Notes:					

Conclusions:

Analyte	Date	Time	Result	Units	LOQ	S/ Out	Laboratory
.- Chloride, IC	3/31/2017	5:33 am	48	mg/L	1	☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate				mg/L	10	☑	
Alkalinity, Carbonate				mg/L	10	☑	
Alkalinity, Total				mg/L	10	☑	
Fluoride, IC	3/31/2017	5:33 am	0.89	mg/L	0.25	☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	3/30/2017	4:55 pm	7.64	SU	2	☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	4/5/2017	9:00 am	352	mg/L	10	☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals				#	1	☑	
Sulfate, IC	3/31/2017	5:33 am	32	mg/L	1	☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.				#	1	☑	

Sample ID:	S17089162C	Client ID:	MW 9	Sampler:	Client
Client:	Coleto Creek Power - R Coleman			Status:	Normal
Study:	Water			Batch No:	53304
Project:	Coleto Creek - CCR			Sampled:	3/30/2017 9:45 AM
Location:	MW #9			Completed:	

Type: Grab
Matrix: Water

Notes:

Conclusions:

Analyte	Date	Time	Result	Units	LOQ	S/ Out	Laboratory
.- Chloride, IC	3/31/2017	4:55 am	71	mg/L	1	☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate				mg/L	10	☑	
Alkalinity, Carbonate				mg/L	10	☑	
Alkalinity, Total				mg/L	10	☑	
Fluoride, IC	3/31/2017	4:55 am	1.13	mg/L	0.25	☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	3/30/2017	4:55 pm	7.24	SU	2	☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	4/5/2017	9:00 am	406	mg/L	10	☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals				#	1	☑	
Sulfate, IC	3/31/2017	4:55 am	62	mg/L	1	☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.				#	1	☑	

Sample ID:	S17089162D	Client ID:	MW 9A	Sampler:	Client
Client:	Coleto Creek Power - R Coleman			Status:	Normal
Study:	Water			Batch No:	53304
Project:	Coleto Creek - CCR			Sampled:	3/30/2017 9:13 AM
Location:	MW 9A			Completed:	

Type: Grab

Matrix: Water

Notes:

Conclusions:

Analyte	Date	Time	Result	Units	LOQ	S/ Out	Laboratory
.- Chloride, IC	3/31/2017	6:11 am	67	mg/L	1	☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate				mg/L	10	☑	
Alkalinity, Carbonate				mg/L	10	☑	
Alkalinity, Total				mg/L	10	☑	
Fluoride, IC	3/31/2017	6:11 am	1.19	mg/L	0.25	☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	3/30/2017	4:55 pm	7.47	SU	2	☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	4/5/2017	9:00 am	400	mg/L	10	☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals				#	1	☑	
Sulfate, IC	3/31/2017	6:11 am	63	mg/L	1	☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.				#	1	☑	

Sample ID:	S17089162E	Client ID:	MW 5	Sampler:	Client	Type:	Grab
Client:	Coleto Creek Power - R Coleman			Status:	Normal	Matrix:	Water
Study:	Water			Batch No:	53304		
Project:	Coleto Creek - CCR			Sampled:	3/30/2017	10:58 AM	
Location:	MW #5			Completed:			
Notes:							

Conclusions:

Analyte	Date	Time	Result	Units	LOQ	S/ Out	Laboratory
.- Chloride, IC	3/31/2017	3:01 am	140	mg/L	1	☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate				mg/L	10	☑	
Alkalinity, Carbonate				mg/L	10	☑	
Alkalinity, Total				mg/L	10	☑	
Fluoride, IC	3/31/2017	3:01 am	0.51	mg/L	0.25	☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	3/30/2017	4:55 pm	7.25	SU	2	☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	4/5/2017	9:00 am	830	mg/L	10	☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals				#	1	☑	
Sulfate, IC	3/31/2017	3:01 am	184	mg/L	1	☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.				#	1	☑	

BatchNo: 54994

SAMPLE REPORT

T104704328-17-14

Business

Coleto Creek Power - R Coleman
PO Box 8
Fannin TX 77960
Att: Rick Coleman

Laboratory

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901
ph. 361-572-8224

Reference Information

Project: CCR Sampling

Printed: Tuesday, June 13, 2017

Re: Coleto Creek Power - R Coleman

Dear: Rick Coleman

Attached are the results for sample(s) received on 5/9/2017

The analytical results relate only to the samples tested.
All supporting quality data meets the requirements of NELAC unless noted in the case narrative section of the report.

This report contains 36 pages (including the cover page)

If you have any questions concerning this report, please do not hesitate to call (361) 572-8224 or Fax us at (361) 572-4115

Respectfully Submitted,

Kevin Baros

Laboratory Director

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 54994

Batch No: 54994

Sample Receipt Checklist

Date Received: 5/9/2017

Project	CCR Sampling	Received By:	Woodruff

Login completed by: Woodruff (Signature) | 5/9/2017 (LoginDate:)

Carrier Name: Walk In

Shipping container/cooler in good condition?	☑ YES	☐ NO	☐ Not Present	
Custody seals intact on shipping container/cooler?	☐ YES	☐ NO	☑ Not Present	
Custody seals intact on sample bottles?	☐ YES	☐ NO	☑ Not Present	
Chain of Custody present?	☑ YES	☐ NO		
Chain of Custody signed when relinquished and received	☑ YES	☐ NO		
Chain of Custody agrees with sample labels?	☑ YES	☐ NO		
Samples in proper container/bottles?	☑ YES	☐ NO		
Sample containers intact?	☑ YES	☐ NO		
Sufficient sample volume for indicated tests?	☑ YES	☐ NO		
All samples received within holding times?	☑ YES	☐ NO		
Container/Temp Blank - temperature in compliance?	☑ YES	☐ NO	>0 <6 °C On Ice	
Water - VOA vials have zero headspace? Bubble < 6mm?	☐ YES	☐ NO	☑ No VOA Vials submitted	
Water - pH acceptable upon receipt?	☑ YES	☐ NO	☐ Not Applicable	

*TEMP 15.3/15.1 | pH Adjusted? No | Checked By L. Vahrenkamp

Any No and/or N/A (not applicable) response must be detailed in the comments section below.

Client contacted		PersonContacted	
Contacted by:		Date Contacted:	

Regarding

Comments

Therm. #3. HNO3 Lot# 2-42-12. The samples were received the same day they were collected and were in the process of cooling. BV-21 was resamples for Ra226 & Ra228 and this result will be included in a separate report.

Corrective Action

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 54994

Sample Report Information

Sample ID:	S171291549	Client ID:	Blank	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: Blank
Notes:

Batch No: 54994
Sampled: 5/9/2017 2:45 PM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	< 1	mg/L	EPA 300	K Baros	5/10/2017 16:16	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	< 20	mg/L	SM 2320 B		5/11/2017 12:21	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/11/2017 12:21	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	< 20	mg/L	SM 2320 B		5/11/2017 12:21	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	< 0.25	mg/L	EPA 300	K Baros	5/10/2017 16:16	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	6.38	SU	SM 4500-H+B	C Watts	5/9/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	< 25	mg/L	SM2540C	C Watts	5/11/2017 14:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			5/12/2017 14:35					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	< 1	mg/L	EPA 300	K Baros	5/10/2017 16:16	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			5/25/2017 7:35					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 54994

Sample Report Information

Sample ID:	S171291552	Client ID:	DUP	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: Dup
Notes:

Batch No: 54994
Sampled: 5/9/2017 2:45 PM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	76	mg/L	EPA 300	K Baros	5/10/2017 16:54	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	259	mg/L	SM 2320 B		5/11/2017 12:32	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/11/2017 12:32	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	259	mg/L	SM 2320 B		5/11/2017 12:32	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.45	mg/L	EPA 300	K Baros	5/10/2017 16:54	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	6.93	SU	SM 4500-H+B	C Watts	5/9/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	566	mg/L	SM2540C	C Watts	5/11/2017 14:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			5/12/2017 15:30					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	79	mg/L	EPA 300	K Baros	5/10/2017 16:54	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			5/25/2017 7:35					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 54994

Sample Report Information

Sample ID:	S171291553	Client ID:	MW-8	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #8
Notes:

Batch No: 54994
Sampled: 5/9/2017 10:50 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	77	mg/L	EPA 300	K Baros	5/10/2017 18:10	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	256	mg/L	SM 2320 B		5/11/2017 12:40	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/11/2017 12:40	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	256	mg/L	SM 2320 B		5/11/2017 12:40	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.44	mg/L	EPA 300	K Baros	5/10/2017 18:10	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	6.99	SU	SM 4500-H+B	C Watts	5/9/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	564	mg/L	SM2540C	C Watts	5/11/2017 14:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			5/12/2017 15:32					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	79	mg/L	EPA 300	K Baros	5/10/2017 18:10	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			5/25/2017 7:35					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 54994

Sample Report Information

Sample ID:	S171291554	Client ID:	MW-4	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW 4
Notes:

Batch No: 54994
Sampled: 5/9/2017 10:50 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	101	mg/L	EPA 300	K Baros	5/10/2017 18:48	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	242	mg/L	SM 2320 B		5/11/2017 12:50	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/11/2017 12:50	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	242	mg/L	SM 2320 B		5/11/2017 12:50	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.61	mg/L	EPA 300	K Baros	5/10/2017 18:48	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	6.93	SU	SM 4500-H+B	C Watts	5/9/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	668	mg/L	SM2540C	C Watts	5/11/2017 14:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			5/12/2017 15:34					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	156	mg/L	EPA 300	K Baros	5/10/2017 18:48	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			5/25/2017 7:35					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 54994

Sample Report Information

Sample ID:	S171291555	Client ID:	BV-15	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV 15
Notes:

Batch No: 54994
Sampled: 5/9/2017 9:00 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	62	mg/L	EPA 300	K Baros	5/10/2017 19:26	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	183	mg/L	SM 2320 B		5/11/2017 12:57	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/11/2017 12:57	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	183	mg/L	SM 2320 B		5/11/2017 12:57	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.79	mg/L	EPA 300	K Baros	5/10/2017 19:26	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.2	SU	SM 4500-H+B	C Watts	5/9/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	454	mg/L	SM2540C	C Watts	5/11/2017 14:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			5/12/2017 15:35					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	96	mg/L	EPA 300	K Baros	5/10/2017 19:26	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			5/25/2017 7:35					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 54994

Sample Report Information

Sample ID:	S171291556	Client ID:	BV-21	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV 21
Notes:

Batch No: 54994
Sampled: 5/9/2017 9:43 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	38	mg/L	EPA 300	K Baros	5/10/2017 20:04	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	229	mg/L	SM 2320 B		5/11/2017 13:05	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/11/2017 13:05	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	229	mg/L	SM 2320 B		5/11/2017 13:05	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.61	mg/L	EPA 300	K Baros	5/10/2017 20:04	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.04	SU	SM 4500-H+B	C Watts	5/9/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	410	mg/L	SM2540C	C Watts	5/11/2017 14:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	c	#			5/12/2017 15:37					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	55	mg/L	EPA 300	K Baros	5/10/2017 20:04	1	1			☐	B- E Cert. # T104704328-17-14

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 54994

Sample Report Information

Sample ID:	S171291557	Client ID:	BV-22	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV 22
Notes:

Batch No: 54994
Sampled: 5/9/2017 10:17 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	35	mg/L	EPA 300	K Baros	5/10/2017 21:59	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	231	mg/L	SM 2320 B		5/11/2017 13:14	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/11/2017 13:14	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	231	mg/L	SM 2320 B		5/11/2017 13:14	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.53	mg/L	EPA 300	K Baros	5/10/2017 21:59	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.07	SU	SM 4500-H+B	C Watts	5/9/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	390	mg/L	SM2540C	C Watts	5/11/2017 14:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			5/12/2017 16:08					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	34	mg/L	EPA 300	K Baros	5/10/2017 21:59	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			5/25/2017					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 54994

QA Summary Report

Parameter	ID	Result	Ref Value	Amt Added	LOQ	Qualifer	Control	Flag	Comments
Method Blank									
.- Chloride, IC	**Q171422256**	<1mg/L	0		1		1		Blank Acceptable.
5/10/2017 13:05									
Fluoride, IC	**Q171422256**	<0.25mg/L	0		0.25		0.25		Blank Acceptable.
5/10/2017 13:05									
Solids, Total Dissolved	**Q171321636**	<25mg/L	0		10		25		Blank Acceptable.
5/11/2017 14:30									
Sulfate, IC	**Q171422256**	<1mg/L	0		1		1		Blank Acceptable.
5/10/2017 13:05									
Duplicate									
pH (Standard Units)	**Q171291702**	6.38SU	6.36		2	0.3%	20		Duplicate RPD Acceptable.
5/9/2017 16:45									
Solids, Total Dissolved	**Q171321638**	662mg/L	660		10	0.3%	20		Duplicate RPD Acceptable.
5/11/2017 14:30									
Laboratory Control Standard									
.- Chloride, IC	**Q171422258**	25.9mg/L	25		1	103.6%	80 - 120		Standard Recovery Acceptable.
5/10/2017 13:43						3.5%	20		Standard RPD Acceptable.
Fluoride, IC	**Q171422258**	2.12mg/L	2		0.25	106.0%	80 - 120		Standard Recovery Acceptable.
5/10/2017 13:43						5.8%	20		Standard RPD Acceptable.
pH (Standard Units)	**Q171291701**	7.03SU	7		2	100.4%	80 - 120		Standard Recovery Acceptable.
5/9/2017 16:45						0.4%	20		Standard RPD Acceptable.
Sulfate, IC	**Q171422258**	26.4mg/L	25		1	105.6%	80 - 120		Standard Recovery Acceptable.
5/10/2017 13:43						5.4%	20		Standard RPD Acceptable.
Matrix Spike									
.- Chloride, IC	**Q171422259**	103mg/L	102.9	25	1	100.4%	80 - 120		Spike Recovery Acceptable.
5/11/2017 2:25						0.1%	20		Spike RPD Acceptable.
Fluoride, IC	**Q171422259**	2.38mg/L	2.45	2	0.25	96.5%	80 - 120		Spike Recovery Acceptable.
5/11/2017 2:25						2.9%	20		Spike RPD Acceptable.
Sulfate, IC	**Q171422259**	115mg/L	115	25	1	100.0%	70 - 130		Spike Recovery Acceptable.
5/11/2017 2:25						0.0%	20		Spike RPD Acceptable.
Matrix Spike Dup									
.- Chloride, IC	**Q17142225A**	103mg/L	102.9	25	1	100.4%	80 - 120		Spike Recovery Acceptable.
5/11/2017 3:04						0.1%	20		Spike RPD Acceptable.
Fluoride, IC	**Q17142225A**	2.38mg/L	2.45	2	0.25	96.5%	80 - 120		Spike Recovery Acceptable.
5/11/2017 3:04						2.9%	20		Spike RPD Acceptable.
Sulfate, IC	**Q17142225A**	115mg/L	115	25	1	100.0%	70 - 130		Spike Recovery Acceptable.
5/11/2017 3:04						0.0%	20		Spike RPD Acceptable.

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 54994

Flag and Qualifier Legend

Negative - Result Detected	***MDL = Method Detection Limit***	***DF = Dilution Factor***
Caution - Problem Detected	*LOQ = Limit of Quantitation*	***j = Analyte detected between MDL and LOQ***
Warning - Null Value	***S = surrogate standard out of limit***	***H = sample out of hold time***

MS, MSD, RPD- Failure may occur due to matrix interference, data released per QA plan

Tuesday, June 13, 2017 **B Environmental - LDMS QA Report Summary**

Note: THANK YOU!

DHL Analytical, Inc. **Date:** *17-May-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Lab Order: 1705092

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition and Standard Methods.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives except where noted in the following. For Total Metals Analysis, the recoveries of four analytes for the Matrix Spike and Matrix Spike Duplicate (1705091-03 MS/MSD) were outside of the method control limits. These are flagged accordingly in the QC Summary Report. These analytes were within method control limits in the associated LCS. No further corrective action was taken.

For Total Metals Analysis, the recoveries of three analytes for the Post Digestion Spike (1705091-03 PDS) were outside of the method control limits. These are flagged accordingly in the QC Summary Report. These analytes were within method control limits in the associated Serial Dilution. No further corrective action was taken.

For Total Metals Analysis, the RPD of Potassium for the Serial Dilution (1705091-03 SD) was above the method control limit. This is flagged accordingly in the QC Summary Report. This analyte was within method control limits in the associated Post Digestion Spike. No further corrective action was taken.

The Total and Dissolved Metals Analysis, the results Dissolved Lithium/Molybdenum for five samples were slightly higher than the results of Total Lithium/Molybdenum. The results were within acceptable analytical variation limits. No further corrective action was taken.

DHL Analytical, Inc.

Date: *17-May-17*

CLIENT:	B-Environmental	**Client Sample ID:**	Blank
Project:	Coleto Creek Power	**Lab ID:**	1705092-01
Project No:	CCR Sampling (54994)	**Alternate ID:**	S171291549
Lab Order:	1705092	**Collection Date:**	05/09/17 02:45 PM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	<0.00500	0.00500	0.0100		mg/L	1	05/10/17 03:52 PM
Dissolved Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	05/10/17 03:52 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **CVD**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/12/17 02:35 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	05/12/17 02:35 PM
Barium	<0.00300	0.00300	0.0100		mg/L	1	05/12/17 02:35 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/12/17 02:35 PM
Boron	0.0553	0.0100	0.0300		mg/L	1	05/12/17 02:35 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/12/17 02:35 PM
Calcium	0.429	0.100	0.300		mg/L	1	05/12/17 02:35 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	05/12/17 02:35 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	05/12/17 02:35 PM
Lead	0.000450	0.000300	0.00100	J	mg/L	1	05/12/17 02:35 PM
Lithium	<0.00500	0.00500	0.0100		mg/L	1	05/12/17 02:35 PM
Magnesium	<0.100	0.100	0.300		mg/L	1	05/12/17 02:35 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	05/12/17 02:35 PM
Potassium	<0.100	0.100	0.300		mg/L	1	05/12/17 02:35 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/12/17 02:35 PM
Sodium	<0.100	0.100	0.300		mg/L	1	05/12/17 02:35 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/12/17 02:35 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/16/17 02:07 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.21	1	05/11/17 12:21 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.21	1	05/11/17 12:21 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.21	1	05/11/17 12:21 PM
Alkalinity, Total (As CaCO3)	<20.0	20.0	20.0		mg/L @ pH 4.21	1	05/11/17 12:21 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *17-May-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR Sampling (54994)
Lab Order: 1705092

Client Sample ID: Dup
Lab ID: 1705092-02
Alternate ID: S171291552
Collection Date: 05/09/17
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.0107	0.00500	0.0100		mg/L	1	05/10/17 03:48 PM
Dissolved Molybdenum	0.0165	0.00200	0.00500		mg/L	1	05/10/17 03:48 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **CVD**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/12/17 03:30 PM
Arsenic	0.00836	0.00200	0.00500		mg/L	1	05/12/17 03:30 PM
Barium	0.0636	0.00300	0.0100		mg/L	1	05/12/17 03:30 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/12/17 03:30 PM
Boron	1.36	0.100	0.300		mg/L	10	05/12/17 02:36 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/12/17 03:30 PM
Calcium	76.8	1.00	3.00		mg/L	10	05/12/17 02:36 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	05/12/17 03:30 PM
Cobalt	0.0263	0.00300	0.00500		mg/L	1	05/12/17 03:30 PM
Lead	0.000578	0.000300	0.00100	J	mg/L	1	05/12/17 03:30 PM
Lithium	0.0119	0.00500	0.0100		mg/L	1	05/12/17 03:30 PM
Magnesium	12.8	0.100	0.300		mg/L	1	05/12/17 03:30 PM
Molybdenum	0.0154	0.00200	0.00500		mg/L	1	05/12/17 03:30 PM
Potassium	0.977	0.100	0.300		mg/L	1	05/12/17 03:30 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/12/17 03:30 PM
Sodium	84.6	1.00	3.00		mg/L	10	05/12/17 02:36 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/12/17 03:30 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/16/17 02:14 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	259	10.0	20.0		mg/L @ pH 4.52	1	05/11/17 12:32 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	05/11/17 12:32 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	05/11/17 12:32 PM
Alkalinity, Total (As CaCO3)	259	20.0	20.0		mg/L @ pH 4.52	1	05/11/17 12:32 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *17-May-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-8
Project:	Coleto Creek Power	**Lab ID:**	1705092-03
Project No:	CCR Sampling (54994)	**Alternate ID:**	S171291553
Lab Order:	1705092	**Collection Date:**	05/09/17 10:50 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.0108	0.00500	0.0100		mg/L	1	05/10/17 03:54 PM
Dissolved Molybdenum	0.0161	0.00200	0.00500		mg/L	1	05/10/17 03:54 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **CVD**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/12/17 03:32 PM
Arsenic	0.00848	0.00200	0.00500		mg/L	1	05/12/17 03:32 PM
Barium	0.0640	0.00300	0.0100		mg/L	1	05/12/17 03:32 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/12/17 03:32 PM
Boron	1.21	0.100	0.300		mg/L	10	05/12/17 02:38 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/12/17 03:32 PM
Calcium	77.5	1.00	3.00		mg/L	10	05/12/17 02:38 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	05/12/17 03:32 PM
Cobalt	0.0272	0.00300	0.00500		mg/L	1	05/12/17 03:32 PM
Lead	0.000535	0.000300	0.00100	J	mg/L	1	05/12/17 03:32 PM
Lithium	0.0111	0.00500	0.0100		mg/L	1	05/12/17 03:32 PM
Magnesium	12.9	0.100	0.300		mg/L	1	05/12/17 03:32 PM
Molybdenum	0.0157	0.00200	0.00500		mg/L	1	05/12/17 03:32 PM
Potassium	0.979	0.100	0.300		mg/L	1	05/12/17 03:32 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/12/17 03:32 PM
Sodium	85.3	1.00	3.00		mg/L	10	05/12/17 02:38 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/12/17 03:32 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/16/17 02:16 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	256	10.0	20.0		mg/L @ pH 4.52	1	05/11/17 12:40 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	05/11/17 12:40 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	05/11/17 12:40 PM
Alkalinity, Total (As CaCO3)	256	20.0	20.0		mg/L @ pH 4.52	1	05/11/17 12:40 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *17-May-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-4
Project:	Coleto Creek Power	**Lab ID:**	1705092-04
Project No:	CCR Sampling (54994)	**Alternate ID:**	S171291554
Lab Order:	1705092	**Collection Date:**	05/09/17 01:32 PM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.0177	0.00500	0.0100		mg/L	1	05/10/17 03:56 PM
Dissolved Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	05/10/17 03:56 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **CVD**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/12/17 03:34 PM
Arsenic	0.00733	0.00200	0.00500		mg/L	1	05/12/17 03:34 PM
Barium	0.0576	0.00300	0.0100		mg/L	1	05/12/17 03:34 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/12/17 03:34 PM
Boron	0.395	0.100	0.300		mg/L	10	05/12/17 02:40 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/12/17 03:34 PM
Calcium	88.7	1.00	3.00		mg/L	10	05/12/17 02:40 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	05/12/17 03:34 PM
Cobalt	0.00653	0.00300	0.00500		mg/L	1	05/12/17 03:34 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	05/12/17 03:34 PM
Lithium	0.0182	0.00500	0.0100		mg/L	1	05/12/17 03:34 PM
Magnesium	17.7	0.100	0.300		mg/L	1	05/12/17 03:34 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	05/12/17 03:34 PM
Potassium	1.37	0.100	0.300		mg/L	1	05/12/17 03:34 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/12/17 03:34 PM
Sodium	105	1.00	3.00		mg/L	10	05/12/17 02:40 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/12/17 03:34 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/16/17 02:18 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	242	10.0	20.0		mg/L @ pH 4.52	1	05/11/17 12:50 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	05/11/17 12:50 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	05/11/17 12:50 PM
Alkalinity, Total (As CaCO3)	242	20.0	20.0		mg/L @ pH 4.52	1	05/11/17 12:50 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *17-May-17*

CLIENT:	B-Environmental	**Client Sample ID:**	BV-15
Project:	Coleto Creek Power	**Lab ID:**	1705092-05
Project No:	CCR Sampling (54994)	**Alternate ID:**	S171291555
Lab Order:	1705092	**Collection Date:**	05/09/17 09:00 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.00697	0.00500	0.0100	J	mg/L	1	05/10/17 03:58 PM
Dissolved Molybdenum	0.0195	0.00200	0.00500		mg/L	1	05/10/17 03:58 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **CVD**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/12/17 03:35 PM
Arsenic	0.00872	0.00200	0.00500		mg/L	1	05/12/17 03:35 PM
Barium	0.0529	0.00300	0.0100		mg/L	1	05/12/17 03:35 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/12/17 03:35 PM
Boron	1.29	0.100	0.300		mg/L	10	05/12/17 02:42 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/12/17 03:35 PM
Calcium	61.0	1.00	3.00		mg/L	10	05/12/17 02:42 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	05/12/17 03:35 PM
Cobalt	0.0141	0.00300	0.00500		mg/L	1	05/12/17 03:35 PM
Lead	0.00440	0.000300	0.00100		mg/L	1	05/12/17 03:35 PM
Lithium	0.00654	0.00500	0.0100	J	mg/L	1	05/12/17 03:35 PM
Magnesium	9.43	0.100	0.300		mg/L	1	05/12/17 03:35 PM
Molybdenum	0.0191	0.00200	0.00500		mg/L	1	05/12/17 03:35 PM
Potassium	1.17	0.100	0.300		mg/L	1	05/12/17 03:35 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/12/17 03:35 PM
Sodium	76.0	1.00	3.00		mg/L	10	05/12/17 02:42 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/12/17 03:35 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/16/17 02:20 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	183	10.0	20.0		mg/L @ pH 4.51	1	05/11/17 12:57 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	05/11/17 12:57 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	05/11/17 12:57 PM
Alkalinity, Total (As CaCO3)	183	20.0	20.0		mg/L @ pH 4.51	1	05/11/17 12:57 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *17-May-17*

CLIENT:	B-Environmental	**Client Sample ID:**	BV-21
Project:	Coleto Creek Power	**Lab ID:**	1705092-06
Project No:	CCR Sampling (54994)	**Alternate ID:**	S171291556
Lab Order:	1705092	**Collection Date:**	05/09/17 09:43 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.00504	0.00500	0.0100	J	mg/L	1	05/10/17 04:00 PM
Dissolved Molybdenum	0.00290	0.00200	0.00500	J	mg/L	1	05/10/17 04:00 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **CVD**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/12/17 03:37 PM
Arsenic	0.108	0.00200	0.00500		mg/L	1	05/12/17 03:37 PM
Barium	0.0972	0.00300	0.0100		mg/L	1	05/12/17 03:37 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/12/17 03:37 PM
Boron	0.687	0.100	0.300		mg/L	10	05/12/17 02:44 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/12/17 03:37 PM
Calcium	65.2	1.00	3.00		mg/L	10	05/12/17 02:44 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	05/12/17 03:37 PM
Cobalt	0.00852	0.00300	0.00500		mg/L	1	05/12/17 03:37 PM
Lead	0.000618	0.000300	0.00100	J	mg/L	1	05/12/17 03:37 PM
Lithium	<0.00500	0.00500	0.0100		mg/L	1	05/12/17 03:37 PM
Magnesium	8.33	0.100	0.300		mg/L	1	05/12/17 03:37 PM
Molybdenum	0.00277	0.00200	0.00500	J	mg/L	1	05/12/17 03:37 PM
Potassium	0.832	0.100	0.300		mg/L	1	05/12/17 03:37 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/12/17 03:37 PM
Sodium	59.2	1.00	3.00		mg/L	10	05/12/17 02:44 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/12/17 03:37 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/16/17 02:23 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	229	10.0	20.0		mg/L @ pH 4.51	1	05/11/17 01:05 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	05/11/17 01:05 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	05/11/17 01:05 PM
Alkalinity, Total (As CaCO3)	229	20.0	20.0		mg/L @ pH 4.51	1	05/11/17 01:05 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *17-May-17*

CLIENT:	B-Environmental	**Client Sample ID:**	BV-22
Project:	Coleto Creek Power	**Lab ID:**	1705092-07
Project No:	CCR Sampling (54994)	**Alternate ID:**	S171291557
Lab Order:	1705092	**Collection Date:**	05/09/17 10:17 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.00626	0.00500	0.0100	J	mg/L	1	05/10/17 04:02 PM
Dissolved Molybdenum	0.00866	0.00200	0.00500		mg/L	1	05/10/17 04:02 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **CVD**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/12/17 04:08 PM
Arsenic	0.00656	0.00200	0.00500		mg/L	1	05/12/17 04:08 PM
Barium	0.0452	0.00300	0.0100		mg/L	1	05/12/17 04:08 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/12/17 04:08 PM
Boron	0.631	0.100	0.300		mg/L	10	05/12/17 02:45 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/12/17 04:08 PM
Calcium	59.2	1.00	3.00		mg/L	10	05/12/17 02:45 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	05/12/17 04:08 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	05/12/17 04:08 PM
Lead	0.000637	0.000300	0.00100	J	mg/L	1	05/12/17 04:08 PM
Lithium	0.00635	0.00500	0.0100	J	mg/L	1	05/12/17 04:08 PM
Magnesium	9.70	0.100	0.300		mg/L	1	05/12/17 04:08 PM
Molybdenum	0.00799	0.00200	0.00500		mg/L	1	05/12/17 04:08 PM
Potassium	0.962	0.100	0.300		mg/L	1	05/12/17 04:08 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/12/17 04:08 PM
Sodium	58.3	1.00	3.00		mg/L	10	05/12/17 02:45 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/12/17 04:08 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/16/17 02:34 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	231	10.0	20.0		mg/L @ pH 4.52	1	05/11/17 01:14 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	05/11/17 01:14 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	05/11/17 01:14 PM
Alkalinity, Total (As CaCO3)	231	20.0	20.0		mg/L @ pH 4.52	1	05/11/17 01:14 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc. **Date:** *17-May-17*

CLIENT: B-Environmental
Work Order: 1705092
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_170516B

The QC data in batch 80398 applies to the following samples: 1705092-01A, 1705092-02A, 1705092-03A, 1705092-04A, 1705092-05A, 1705092-06A, 1705092-07A

Sample ID **MB-80398**	Batch ID: **80398**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **MBLK**	Run ID: **CETAC2_HG_170516**	Analysis Date: **5/16/2017 1:39:59 PM**	Prep Date: **5/10/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.0000800	0.000200								

Sample ID **LCS-80398**	Batch ID: **80398**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **LCS**	Run ID: **CETAC2_HG_170516**	Analysis Date: **5/16/2017 1:42:15 PM**	Prep Date: **5/10/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00198	0.000200	0.00200	0	99.0	85	115			

Sample ID **LCSD-80398**	Batch ID: **80398**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **LCSD**	Run ID: **CETAC2_HG_170516**	Analysis Date: **5/16/2017 1:44:31 PM**	Prep Date: **5/10/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00196	0.000200	0.00200	0	98.0	85	115	1.02	15	

Sample ID **1705092-06A SD**	Batch ID: **80398**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **SD**	Run ID: **CETAC2_HG_170516**	Analysis Date: **5/16/2017 2:25:22 PM**	Prep Date: **5/10/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.000400	0.00100	0	0				0	10	

Sample ID **1705092-06A PDS**	Batch ID: **80398**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **PDS**	Run ID: **CETAC2_HG_170516**	Analysis Date: **5/16/2017 2:27:38 PM**	Prep Date: **5/10/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00245	0.000200	0.00250	0	98.0	85	115			

Sample ID **1705092-06A MS**	Batch ID: **80398**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **MS**	Run ID: **CETAC2_HG_170516**	Analysis Date: **5/16/2017 2:29:54 PM**	Prep Date: **5/10/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00196	0.000200	0.00200	0	98.0	80	120			

Sample ID **1705092-06A MSD**	Batch ID: **80398**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **MSD**	Run ID: **CETAC2_HG_170516**	Analysis Date: **5/16/2017 2:32:11 PM**	Prep Date: **5/10/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00194	0.000200	0.00200	0	97.0	80	120	1.03	15	

Qualifiers:

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL
DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705092
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170510A

The QC data in batch 80399 applies to the following samples: 1705092-01B, 1705092-02B, 1705092-03B, 1705092-04B, 1705092-05B, 1705092-06B, 1705092-07B

Sample ID **MB-80399** Batch ID: **80399** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS4_170510A** Analysis Date: **5/10/2017 3:40:00 PM** Prep Date: **5/10/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.00500	0.0100								
Molybdenum	<0.00200	0.00500								

Sample ID **LCS-80399** Batch ID: **80399** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS4_170510A** Analysis Date: **5/10/2017 3:42:00 PM** Prep Date: **5/10/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.199	0.0100	0.200	0	99.5	80	120			
Molybdenum	0.196	0.00500	0.200	0	98.1	80	120			

Sample ID **LCSD-80399** Batch ID: **80399** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS4_170510A** Analysis Date: **5/10/2017 3:44:00 PM** Prep Date: **5/10/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.196	0.0100	0.200	0	98.2	80	120	1.27	15	
Molybdenum	0.195	0.00500	0.200	0	97.7	80	120	0.376	15	

Sample ID **1705092-02B SD** Batch ID: **80399** TestNo: **SW6020A** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS4_170510A** Analysis Date: **5/10/2017 3:50:00 PM** Prep Date: **5/10/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.0250	0.0500	0	0.0106				0	10	
Molybdenum	0.0170	0.0250	0	0.0165				2.84	10	

Sample ID **1705092-02B PDS** Batch ID: **80399** TestNo: **SW6020A** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS4_170510A** Analysis Date: **5/10/2017 4:04:00 PM** Prep Date: **5/10/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.201	0.0100	0.200	0.0107	95.4	80	120			
Molybdenum	0.211	0.00500	0.200	0.0165	97.3	80	120			

Sample ID **1705092-02B MS** Batch ID: **80399** TestNo: **SW6020A** Units: **mg/L**
SampType: **MS** Run ID: **ICP-MS4_170510A** Analysis Date: **5/10/2017 4:06:00 PM** Prep Date: **5/10/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Lithium	0.206	0.0100	0.200	0.0107	97.9	80	120			
Dissolved Molybdenum	0.217	0.00500	0.200	0.0165	100	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL
DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705092
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170510A

Sample ID **1705092-02B MSD** Batch ID: **80399** TestNo: **SW6020A** Units: **mg/L**
SampType: **MSD** Run ID: **ICP-MS4_170510A** Analysis Date: **5/10/2017 4:08:00 PM** Prep Date: **5/10/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Lithium	0.203	0.0100	0.200	0.0107	96.2	80	120	1.63	15	
Dissolved Molybdenum	0.214	0.00500	0.200	0.0165	98.6	80	120	1.35	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705092
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170512A

The QC data in batch 80397 applies to the following samples: 1705092-01A, 1705092-02A, 1705092-03A, 1705092-04A, 1705092-05A, 1705092-06A, 1705092-07A

Sample ID **MB-80397** Batch ID: **80397** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS5_170512A** Analysis Date: **5/12/2017 2:24:00 PM** Prep Date: **5/10/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.000800	0.00250								
Arsenic	<0.00200	0.00500								
Barium	<0.00300	0.0100								
Beryllium	<0.000300	0.00100								
Boron	<0.0100	0.0300								
Cadmium	<0.000300	0.00100								
Calcium	<0.100	0.300								
Chromium	<0.00200	0.00500								
Cobalt	<0.00300	0.00500								
Lead	<0.000300	0.00100								
Lithium	<0.00500	0.0100								
Magnesium	<0.100	0.300								
Molybdenum	<0.00200	0.00500								
Potassium	<0.100	0.300								
Selenium	<0.00200	0.00500								
Sodium	<0.100	0.300								
Thallium	<0.000500	0.00150								

Sample ID **LCS-80397** Batch ID: **80397** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS5_170512A** Analysis Date: **5/12/2017 2:26:00 PM** Prep Date: **5/10/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.190	0.00250	0.200	0	95.2	80	120			
Arsenic	0.195	0.00500	0.200	0	97.6	80	120			
Barium	0.194	0.0100	0.200	0	96.9	80	120			
Beryllium	0.189	0.00100	0.200	0	94.6	80	120			
Boron	0.181	0.0300	0.200	0	90.6	80	120			
Cadmium	0.185	0.00100	0.200	0	92.4	80	120			
Calcium	4.66	0.300	5.00	0	93.2	80	120			
Chromium	0.193	0.00500	0.200	0	96.4	80	120			
Cobalt	0.199	0.00500	0.200	0	99.4	80	120			
Lead	0.195	0.00100	0.200	0	97.3	80	120			
Lithium	0.184	0.0100	0.200	0	92.1	80	120			
Magnesium	4.73	0.300	5.00	0	94.7	80	120			
Molybdenum	0.188	0.00500	0.200	0	93.8	80	120			
Potassium	4.71	0.300	5.00	0	94.1	80	120			
Selenium	0.198	0.00500	0.200	0	99.0	80	120			
Sodium	4.83	0.300	5.00	0	96.5	80	120			
Thallium	0.199	0.00150	0.200	0	99.6	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705092
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170512A

Sample ID **LCSD-80397** Batch ID: **80397** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS5_170512A** Analysis Date: **5/12/2017 2:28:00 PM** Prep Date: **5/10/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.190	0.00250	0.200	0	94.9	80	120	0.295	15	
Arsenic	0.193	0.00500	0.200	0	96.6	80	120	1.03	15	
Barium	0.194	0.0100	0.200	0	97.1	80	120	0.266	15	
Beryllium	0.190	0.00100	0.200	0	94.9	80	120	0.229	15	
Boron	0.178	0.0300	0.200	0	89.0	80	120	1.73	15	
Cadmium	0.184	0.00100	0.200	0	92.2	80	120	0.270	15	
Calcium	4.68	0.300	5.00	0	93.6	80	120	0.506	15	
Chromium	0.193	0.00500	0.200	0	96.3	80	120	0.058	15	
Cobalt	0.197	0.00500	0.200	0	98.6	80	120	0.782	15	
Lead	0.194	0.00100	0.200	0	97.1	80	120	0.192	15	
Lithium	0.185	0.0100	0.200	0	92.5	80	120	0.369	15	
Magnesium	4.72	0.300	5.00	0	94.5	80	120	0.207	15	
Molybdenum	0.187	0.00500	0.200	0	93.7	80	120	0.179	15	
Potassium	4.69	0.300	5.00	0	93.7	80	120	0.455	15	
Selenium	0.195	0.00500	0.200	0	97.7	80	120	1.30	15	
Sodium	4.77	0.300	5.00	0	95.5	80	120	1.06	15	
Thallium	0.198	0.00150	0.200	0	99.1	80	120	0.506	15	

Sample ID **1705091-03A SD** Batch ID: **80397** TestNo: **SW6020A** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS5_170512A** Analysis Date: **5/12/2017 2:33:00 PM** Prep Date: **5/10/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.00400	0.0125	0	0				0	10	
Arsenic	0.0110	0.0250	0	0.0113				2.59	10	
Barium	0.0542	0.0500	0	0.0539				0.544	10	
Beryllium	<0.00150	0.00500	0	0				0	10	
Boron	2.34	0.150	0	2.19				6.55	10	
Cadmium	<0.00150	0.00500	0	0.000976				0	10	
Calcium	60.0	1.50	0	59.7				0.382	10	
Chromium	<0.0100	0.0250	0	0.00274				0	10	
Cobalt	0.397	0.0250	0	0.400				0.637	10	
Lead	0.0117	0.00500	0	0.0115				1.53	10	
Lithium	<0.0250	0.0500	0	0.0162				0	10	
Magnesium	12.3	1.50	0	12.3				0.027	10	
Molybdenum	0.0229	0.0250	0	0.0237				3.18	10	
Potassium	0.519	1.50	0	0.616				17.1	10	R
Selenium	<0.0100	0.0250	0	0				0	10	
Sodium	143	1.50	0	141				1.07	10	
Thallium	<0.00250	0.00750	0	0				0	10	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705092
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170512A

Sample ID **1705091-03A PDS** Batch ID: **80397** TestNo: **SW6020A** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS5_170512A** Analysis Date: **5/12/2017 2:51:00 PM** Prep Date: **5/10/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.191	0.00250	0.200	0	95.7	80	120			
Arsenic	0.200	0.00500	0.200	0.0113	94.5	80	120			
Barium	0.247	0.0100	0.200	0.0539	96.6	80	120			
Beryllium	0.198	0.00100	0.200	0	99.2	80	120			
Boron	2.32	0.0300	0.200	2.19	64.9	80	120			S
Cadmium	0.186	0.00100	0.200	0.000976	92.6	80	120			
Calcium	60.1	0.300	5.00	59.7	6.67	80	120			S
Chromium	0.199	0.00500	0.200	0.00274	98.0	80	120			
Cobalt	0.577	0.00500	0.200	0.399	88.9	80	120			
Lead	0.206	0.00100	0.200	0.0115	97.3	80	120			
Lithium	0.210	0.0100	0.200	0.0163	97.1	80	120			
Magnesium	16.4	0.300	5.00	12.3	80.8	80	120			
Molybdenum	0.211	0.00500	0.200	0.0237	93.7	80	120			
Potassium	5.22	0.300	5.00	0.616	92.1	80	120			
Selenium	0.182	0.00500	0.200	0	91.0	80	120			
Sodium	137	0.300	5.00	141	-82.5	80	120			S
Thallium	0.199	0.00150	0.200	0	99.3	80	120			

Sample ID **1705091-03A MS** Batch ID: **80397** TestNo: **SW6020A** Units: **mg/L**
SampType: **MS** Run ID: **ICP-MS5_170512A** Analysis Date: **5/12/2017 2:52:00 PM** Prep Date: **5/10/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.191	0.00250	0.200	0	95.7	80	120			
Arsenic	0.197	0.00500	0.200	0.0113	93.0	80	120			
Barium	0.257	0.0100	0.200	0.0539	101	80	120			
Beryllium	0.194	0.00100	0.200	0	96.9	80	120			
Boron	1.36	0.0300	0.200	2.19	-416	80	120			S
Cadmium	0.183	0.00100	0.200	0.000976	91.0	80	120			
Calcium	79.6	0.300	5.00	59.7	398	80	120			S
Chromium	0.192	0.00500	0.200	0.00274	94.7	80	120			
Cobalt	0.218	0.00500	0.200	0.399	-90.7	80	120			S
Lead	0.197	0.00100	0.200	0.0115	92.9	80	120			
Lithium	0.207	0.0100	0.200	0.0163	95.3	80	120			
Magnesium	17.0	0.300	5.00	12.3	92.5	80	120			
Molybdenum	0.208	0.00500	0.200	0.0237	92.2	80	120			
Potassium	5.57	0.300	5.00	0.616	99.1	80	120			
Selenium	0.185	0.00500	0.200	0	92.6	80	120			
Sodium	86.6	0.300	5.00	141	-1090	80	120			S
Thallium	0.200	0.00150	0.200	0	100	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705092
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170512A

Sample ID **1705091-03A MSD** Batch ID: **80397** TestNo: **SW6020A** Units: **mg/L**
SampType: **MSD** Run ID: **ICP-MS5_170512A** Analysis Date: **5/12/2017 2:54:00 PM** Prep Date: **5/10/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.192	0.00250	0.200	0	95.9	80	120	0.177	15	
Arsenic	0.195	0.00500	0.200	0.0113	92.0	80	120	1.03	15	
Barium	0.255	0.0100	0.200	0.0539	101	80	120	0.640	15	
Beryllium	0.190	0.00100	0.200	0	94.9	80	120	2.12	15	
Boron	1.35	0.0300	0.200	2.19	-421	80	120	0.646	15	S
Cadmium	0.183	0.00100	0.200	0.000976	90.8	80	120	0.239	15	
Calcium	79.5	0.300	5.00	59.7	396	80	120	0.163	15	S
Chromium	0.190	0.00500	0.200	0.00274	93.7	80	120	1.08	15	
Cobalt	0.215	0.00500	0.200	0.399	-92.3	80	120	1.50	15	S
Lead	0.193	0.00100	0.200	0.0115	90.7	80	120	2.23	15	
Lithium	0.202	0.0100	0.200	0.0163	93.0	80	120	2.27	15	
Magnesium	17.0	0.300	5.00	12.3	93.5	80	120	0.291	15	
Molybdenum	0.206	0.00500	0.200	0.0237	91.3	80	120	0.873	15	
Potassium	5.52	0.300	5.00	0.616	98.1	80	120	0.890	15	
Selenium	0.183	0.00500	0.200	0	91.5	80	120	1.25	15	
Sodium	86.0	0.300	5.00	141	-1100	80	120	0.723	15	S
Thallium	0.198	0.00150	0.200	0	99.2	80	120	1.00	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705092
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_170511A

The QC data in batch 80423 applies to the following samples: 1705092-01C, 1705092-02C, 1705092-03C, 1705092-04C, 1705092-05C, 1705092-06C, 1705092-07C

Sample ID **MB-80423** Batch ID: **80423** TestNo: **M2320 B** Units: **mg/L @ pH 4.25**
SampType: **MBLK** Run ID: **TITRATOR_170511A** Analysis Date: **5/11/2017 11:48:00 AM** Prep Date: **5/11/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0								
Alkalinity, Total (As CaCO3)	<20.0	20.0								

Sample ID **LCS-80423** Batch ID: **80423** TestNo: **M2320 B** Units: **mg/L @ pH 4.1**
SampType: **LCS** Run ID: **TITRATOR_170511A** Analysis Date: **5/11/2017 11:52:00 AM** Prep Date: **5/11/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	52.4	20.0	50.00	0	105	74	129			

Sample ID **1705092-01C-DUP** Batch ID: **80423** TestNo: **M2320 B** Units: **mg/L @ pH 4.49**
SampType: **DUP** Run ID: **TITRATOR_170511A** Analysis Date: **5/11/2017 12:22:00 PM** Prep Date: **5/11/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	<20.0	20.0	0	0				0	20	

Sample ID **1705109-04C-DUP** Batch ID: **80423** TestNo: **M2320 B** Units: **mg/L @ pH 4.52**
SampType: **DUP** Run ID: **TITRATOR_170511A** Analysis Date: **5/11/2017 1:57:00 PM** Prep Date: **5/11/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	132	20.0	0	127.8				2.85	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	132	20.0	0	127.8				2.85	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01346
Client Sample ID: S171291549 (Batch 54994)
Sample Collection Date: 05/09/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: NA
ARS Sample ID: ARS1-17-01346-001
Date Received: 05/12/17
Report Date: 06/07/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.026	0.102	0.195	0.081	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	05/25/17 7:35	CTRAMEL	104%
Ra-228	0.328	0.684	1.180	0.549	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	05/18/17 12:42	CTRAMEL	111%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01346
Client Sample ID: S171291552 (Batch 54994)
Sample Collection Date: 05/09/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: NA
ARS Sample ID: ARS1-17-01346-002
Date Received: 05/12/17
Report Date: 06/07/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.419	0.191	0.201	0.082	NP		pCi/L	ARS-010/EPA 903.0/904.0	05/25/17 7:35	CTRAMEL	106%
Ra-228	0.861	0.743	1.187	0.553	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	05/18/17 12:42	CTRAMEL	108%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01346
Client Sample ID: S171291553 (Batch 54994)
Sample Collection Date: 05/09/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: NA
ARS Sample ID: ARS1-17-01346-003
Date Received: 05/12/17
Report Date: 06/07/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.474	0.194	0.181	0.072	NP		pCi/L	ARS-010/EPA 903.0/904.0	05/25/17 7:35	CTRAMEL	105%
Ra-228	-0.050	0.628	1.142	0.530	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	05/18/17 12:42	CTRAMEL	109%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01346
Client Sample ID: S171291554 (Batch 54994)
Sample Collection Date: 05/09/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: NA
ARS Sample ID: ARS1-17-01346-004
Date Received: 05/12/17
Report Date: 06/07/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.194	0.134	0.173	0.067	NP		pCi/L	ARS-010/EPA 903.0/904.0	05/25/17 7:35	CTRAMEL	101%
Ra-228	0.500	0.647	1.082	0.500	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	05/18/17 12:42	CTRAMEL	103%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01346
Client Sample ID: S171291555 (Batch 54994)
Sample Collection Date: 05/09/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: NA
ARS Sample ID: ARS1-17-01346-005
Date Received: 05/12/17
Report Date: 06/07/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.386	0.174	0.155	0.058	NP		pCi/L	ARS-010/EPA 903.0/904.0	05/25/17 7:35	CTRAMEL	91%
Ra-228	0.414	0.963	1.652	0.784	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	05/18/17 12:42	CTRAMEL	92%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01346
Client Sample ID: S171291557 (Batch 54994)
Sample Collection Date: 05/09/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: NA
ARS Sample ID: ARS1-17-01346-006
Date Received: 05/12/17
Report Date: 06/07/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 σ	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.287	0.142	0.139	0.052	NP		pCi/L	ARS-010/EPA 903.0/904.0	05/25/17 7:35	CTRAMEL	106%
Ra-228	0.866	0.886	1.452	0.685	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	05/18/17 12:42	CTRAMEL	112%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

Batch # 54994

INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

QC Results Report

Sample Delivery Group: ARS1-17-01346

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-00947	LCS	RA-226	26.356	4.250	0.091	27.584	N/A	pCi/L	ARS-010/EPA 903	5/25/17 9:34	CT	96	75%-125%
ARS1-B17-00947	LCS	RA-228	36.438	6.063	1.033	39.784	N/A	pCi/L	ARS-010/EPA 904	5/25/17 9:34	CT	92	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-00947	MBL	RA-226	0.166	0.083	0.084	NA		pCi/L	ARS-010/EPA 903	5/25/17 9:34	CT
ARS1-B17-00947	MBL	RA-228	0.093	0.330	0.580	NA	U	pCi/L	ARS-010/EPA 904	5/25/17 9:34	CT

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-00947	LCSD	RA-226	26.356	4.250	26.439	4.269	N/A	pCi/L	ARS-010/EPA 903	5/25/17 9:34	CT	0.01	< 1
ARS1-B17-00947	LCSD	RA-228	36.438	6.063	35.410	5.889	N/A	pCi/L	ARS-010/EPA 904	5/25/17 9:34	CT	0.09	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-00947	LCSD	RA-226	26.356	4.250	26.439	4.269	N/A	pCi/L	ARS-010/EPA 903	5/25/17 9:34	CT	0.01	< 3
ARS1-B17-00947	LCSD	RA-228	36.438	6.063	35.410	5.889	N/A	pCi/L	ARS-010/EPA 904	5/25/17 9:34	CT	0.12	< 3

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

ARS INTERNATIONAL

2609 North River Road • Port Allen, Louisiana 70767

1 (800) 401-4277 • Fax (225) 381-2996

Notes (Case Narrative):

Comments:

1.0) All MDA/MDC values are calculated on a sample specific basis.
2.0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.
3.0) Data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.
4.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix. Modified analyses are indicated by the subsequent addition of "m" to the procedure number (i.e. 900.0M).
5.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than the actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
6.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228 (Gamma Spectroscopy only).
7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234 (Gamma Spectroscopy only).
8.0) All gamma spectroscopy was performed utilizing high purity germanium detectors (**HPGe**).
9.0) ARS makes every attempt to match sample density to calibrated density; however, in some cases, it is not practical or possible to do so and data results may be affected (Gamma Spectroscopy only).
10.0) Gamma spectroscopy results are calculated values based on the **ORTEC®** GammaVision ENV32 Analysis Engine.
11.0) ACLASS DOD and ISO 17025 certification applies only to the following analytes and methods: Gross Alpha and Gross Beta (EPA 900, SM7110B&C, SW846 9310); Radium 226 (EPA 903, EPA 903.1, SM 7500 Ra-B, SW846 9315); Radium 228 (EPA 904, SM 7500 Ra-B SW846 9320); Iodine-131(EPA 901.1); Uranium by ICPMS (EPA 200.8); Strontium 89/90 (EPA 905, Eichrom SRW01, HASL 300 Sr-03-RC); Tritium (EPA 906, EPA 906M); Gamma Emitters (EPA 901.1, SM7120B, HASL 300 Ga-01-R); Americium-241, Curium 242/244, Plutonium 239/240 and 241, Thorium 228/230/232, Uranium 234/233 and 238 (Eichrom ACW03 VBS); Lead 210 (HASL 300 Pb-01-RC, Eichrom OTW01); Polonium 210 (HASL 300 Po-01-RC, HASL 300 Po-02-RC); Technetium-99 (Eichrom TCW02, Eichrom TCS01M).

Method References:

1.0) **EPA 600/4-80-032**; Prescribed Procedures for the Measurements of Radioactivity in Drinking Water, August 1980.
2.0) **Standard Methods for the Examination of Water and Wastewater** (On-Line Edition)
3.0) **EPA SW-846**; Test Methods for Evaluating Solid Waste, (On-Line edition)
4.0) **EPA 600/4/79-020**; Methods for Chemical Analysis of Water and Waste, March 1983.
5.0) **HASL 300**; The Procedures Manual of the Environmental Measurements Laboratory, Volume I, 28th Edition February, 1997.

Definitions:

CRDL	Contract Required Detection Limit
CSU	Combined Standard Uncertainty
DLC	Decision Level Concentration (ANSI N42.23) or critical level
DO	Duplicate Original
DUP	Method Duplicate
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
MDA	Minimum Detectable Activity
MDC	(Minimum Detectable Concentration) minimum concentration of the analyte that ARS can detect utilizing the specific analysis
MBL	Method Blank
MS/MSD	Matrix Spike/Matrix Spike Duplicate
N/A	Not Applicable
NP	Not Provided
NR	Not Referenced
LOD	Limit of Detection
LOQ	Limit of Quantitation

Data Qualifiers:

B	The analyte is found in both the associated method blank and the sample. This flag indicates probable blank contamination.
D	Sample analysis accomplished through dilution.
J	The reported result is an estimated value above the limit of detection but outside of quantitation range (e.g., matrix interference was observed).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).
U	Activity is below the MDC, MDA, MDL, or LOD
N	The analyte is a tentatively identified compound using mass spectrometry or any non-customer requested compounds that are tentatively identified.
*	LCS/LCSD or MS/MSD fails RPD criteria.
S	Spike
SC	Subcontracted out to another qualified laboratory
H	Holding time exceeded

D - Environmental

Chain of Custody Recor

Batch # 54994 | TEMP UN-C: 15.3 | Page ___ of ___
THERM ID# 3 | TEMP Corr: 15.1

Customer / Report Information

Name: Coleto Creek Power
Attention: Rick Coleman
Address:

Billing Information [X] Check box if Billing is the same as Report Information

Address:
Attention: PO#:
Project: CCR Sampling
Comments:

Phone: 361-788-5145 FAX:
EMAIL: Richard.coleman@dynegy.com

Requested Analysis: Metals*, Cl, F*, SO4, pH, TDS, Ra 226/228, Alk: Tot, Bicarb, Carb, Diss Li + Mo

Completed By Laboratory: Custody Seals Present Yes ☐ No ☐; Intact Yes ☐ No ☐

Collected By:

Matrix: DW - Drinking H20, S - Solid, WW - Waste H20, SL - Sludge, L - Liquid, W - Water
G=Grab, C=Composite

Client / Field Sample ID	Date	Time	G/C	Matrix	Type	Number	Size	Preservative	Metals*	Cl, F*, SO4	pH	TDS	Ra 226/228	Alk: Tot, Bicarb, Carb	Diss Li + Mo	LAB Sample Number
BLANK	5-5-17	1445	G	W	P	6	1L, 500, 250	ICE, HNO3	X	X	X	X	X	X	X	S171291549
Dup	↓							ICE, HNO3								S171291552
MW-8	↓	1050						ICE, HNO3								S171291553
MW-4	↓	1332						ICE, HNO3								S171291554
BV-15	↓	0900						ICE, HNO3								S171291555
BV-21	↓	0943						ICE, HNO3								S171291556
BV-22	↓	1017						ICE, HNO3								S171291557

Preservative options: H2SO4, H3PO4, ICE, ____, HNO3, NaOH, HCL, Na2SO3

Required Turnaround: [X] Routine (6-10 Business Days) Expedite / Rush: ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business Days ☐ 5 Business Days ☐ Other ______ REMARKS:

Surcharge will apply to RUSH TAT Authorized By:

Container Type: P=Plastic, G=Glass, V=VOA, O=Other | Carrier ID :

Relinquished By:	Date:	Time:	Received By:	Date:	Time:
[signature]	5-5-17	1500	[signature]	5/9/17	1500
[signature]	5/9/17	1640	[signature]	5-9-17	1640

Fluoride: 0.25 mg/L; Metals*: B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, Mg, K, Na, + Hg

BatchNo: 55103

SAMPLE REPORT

T104704328-17-14

Business

Coleto Creek Power - R Coleman
PO Box 8
Fannin TX 77960
Att: Rick Coleman

Laboratory

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901
ph. 361-572-8224

Reference Information

Project: CCR Sampling
Printed: Tuesday, June 13, 2017

Re: Coleto Creek Power - R Coleman

Dear: Rick Coleman

Attached are the results for sample(s) received on 5/10/2017

The analytical results relate only to the samples tested.
All supporting quality data meets the requirements of NELAC unless noted in the case narrative section of the report.

This report contains 44 pages (including the cover page)

If you have any questions concerning this report, please do not hesitate to call (361) 572-8224 or Fax us at (361) 572-4115

Respectfully Submitted,

Kevin Baros

Laboratory Director

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55103

Batch No: 55103

Sample Receipt Checklist

Date Received: 5/10/2017

Project	CCR Sampling	Received By:	Woodruff

Login completed by: Woodruff (Signature) 5/10/2017 (LoginDate:)

Carrier Name: Walk In

Shipping container/cooler in good condition?	☑ YES	☐ NO	☐ Not Present	
Custody seals intact on shipping container/cooler?	☐ YES	☐ NO	☑ Not Present	
Custody seals intact on sample bottles?	☐ YES	☐ NO	☑ Not Present	
Chain of Custody present?	☑ YES	☐ NO		
Chain of Custody signed when relinquished and received	☑ YES	☐ NO		
Chain of Custody agrees with sample labels?	☑ YES	☐ NO		
Samples in proper container/bottles?	☑ YES	☐ NO		
Sample containers intact?	☑ YES	☐ NO		
Sufficient sample volume for indicated tests?	☑ YES	☐ NO		
All samples received within holding times?	☑ YES	☐ NO		
Container/Temp Blank - temperature in compliance?	☑ YES	☐ NO	>0 <6 °C On Ice	
Water - VOA vials have zero headspace? Bubble < 6mm?	☐ YES	☐ NO	☑ No VOA Vials submitted	
Water - pH acceptable upon receipt?	☑ YES	☐ NO	☐ Not Applicable	

*TEMP 5.6/5.4 | pH Adjusted? No | Checked By L. Vahrenkamp

Any No and/or N/A (not applicable) response must be detailed in the comments section below.

Client contacted		PersonContacted	
Contacted by:		Date Contacted:	

Regarding

Comments

Therm. #3. HNO3 Lot# 2-42-12.

Corrective Action

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55103

Sample Report Information

Sample ID:	S171301614	Client ID:	MW-10	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #10
Notes:

Batch No: 55103
Sampled: 5/9/2017 3:40 PM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	82	mg/L	EPA 300	K Baros	5/12/2017 0:10	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	234	mg/L	SM 2320 B		5/11/2017 13:22	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/11/2017 13:22	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	234	mg/L	SM 2320 B		5/11/2017 13:22	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.83	mg/L	EPA 300	K Baros	5/12/2017 0:10	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.24	SU	SM 4500-H+B	C Watts	5/10/2017 17:00					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	582	mg/L	SM2540C	C Watts	5/15/2017 12:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			5/15/2017 13:32					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	96	mg/L	EPA 300	K Baros	5/12/2017 0:10	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			6/2/2017 7:38					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55103

Sample Report Information

Sample ID:	S171301619	Client ID:	MW-10A	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW 10A
Notes:

Batch No: 55103
Sampled: 5/9/2017 4:12 PM

Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	360	mg/L	EPA 300	K Baros	5/12/2017 0:48	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	321	mg/L	SM 2320 B		5/11/2017 13:35	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/11/2017 13:35	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	321	mg/L	SM 2320 B		5/11/2017 13:35	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.45	mg/L	EPA 300	K Baros	5/12/2017 0:48	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	6.75	SU	SM 4500-H+B	C Watts	5/10/2017 17:00					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	1232	mg/L	SM2540C	C Watts	5/15/2017 12:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	c	#			5/15/2017 13:34					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	84	mg/L	EPA 300	K Baros	5/12/2017 0:48	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	c	#			6/2/2017 7:37					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55103

Sample Report Information

Sample ID:	S171301620	Client ID:	MW-9	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #9
Notes:

Batch No: 55103
Sampled: 5/10/2017 8:18 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	66	mg/L	EPA 300	K Baros	5/11/2017 15:17	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	133	mg/L	SM 2320 B		5/11/2017 13:46	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/11/2017 13:46	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	133	mg/L	SM 2320 B		5/11/2017 13:46	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	1.29	mg/L	EPA 300	K Baros	5/11/2017 15:17	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.37	SU	SM 4500-H+B	C Watts	5/10/2017 17:00					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	410	mg/L	SM2540C	C Watts	5/17/2017 13:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			5/15/2017 13:36					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	59	mg/L	EPA 300	K Baros	5/11/2017 15:17	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			6/2/2017 7:37					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55103

Sample Report Information

Sample ID:	S171301621	Client ID:	MW-9A	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW 9A
Notes:

Batch No: 55103
Sampled: 5/10/2017 8:58 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	64	mg/L	EPA 300	K Baros	5/11/2017 15:55	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	128	mg/L	SM 2320 B		5/11/2017 13:51	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/11/2017 13:51	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	128	mg/L	SM 2320 B		5/11/2017 13:51	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	1.28	mg/L	EPA 300	K Baros	5/11/2017 15:55	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.46	SU	SM 4500-H+B	C Watts	5/10/2017 17:00					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	404	mg/L	SM2540C	C Watts	5/15/2017 12:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	c	#			5/15/2017 12:51					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	65	mg/L	EPA 300	K Baros	5/11/2017 15:55	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	c	#			6/2/2017 7:37					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55103

Sample Report Information

Sample ID:	S171301622	Client ID:	MW 5	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #5
Notes:

Batch No: 55103
Sampled: 5/10/2017 11:12 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	139	mg/L	EPA 300	K Baros	5/11/2017 17:49	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	276	mg/L	SM 2320 B		5/11/2017 14:07	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/11/2017 14:07	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	276	mg/L	SM 2320 B		5/11/2017 14:07	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.54	mg/L	EPA 300	K Baros	5/11/2017 17:49	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	6.95	SU	SM 4500-H+B	C Watts	5/10/2017 17:00					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	900	mg/L	SM2540C	C Watts	5/17/2017 13:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			5/15/2017 13:38					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	183	mg/L	EPA 300	K Baros	5/11/2017 17:49	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			6/2/2017 7:38					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55103

Sample Report Information

Sample ID:	S171301623	Client ID:	PS-3	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: PS 3
Notes:

Batch No: 55103
Sampled: 5/10/2017 1:59 PM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	46	mg/L	EPA 300	K Baros	5/11/2017 18:27	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	155	mg/L	SM 2320 B		5/11/2017 14:13	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/11/2017 14:13	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	155	mg/L	SM 2320 B		5/11/2017 14:13	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.96	mg/L	EPA 300	K Baros	5/11/2017 18:27	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.42	SU	SM 4500-H+B	C Watts	5/10/2017 17:00					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	368	mg/L	SM2540C	C Watts	5/17/2017 13:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			5/15/2017 13:40					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	32	mg/L	EPA 300	K Baros	5/11/2017 18:27	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			6/6/2017 7:35					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55103

Sample Report Information

Sample ID:	S171301625	Client ID:	MW-11	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #11
Notes:

Batch No: 55103
Sampled: 5/10/2017 1:25 PM

Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	55	mg/L	EPA 300	K Baros	5/11/2017 19:05	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	146	mg/L	SM 2320 B		5/11/2017 14:19	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/11/2017 14:19	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	146	mg/L	SM 2320 B		5/11/2017 14:19	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.82	mg/L	EPA 300	K Baros	5/11/2017 19:05	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.45	SU	SM 4500-H+B	C Watts	5/10/2017 17:00					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	394	mg/L	SM2540C	C Watts	5/17/2017 13:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			5/15/2017 13:42					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	61	mg/L	EPA 300	K Baros	5/11/2017 19:05	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			6/6/2017 7:35					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55103

Sample Report Information

Sample ID:	S171301626	Client ID:	DUP	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: Dup
Notes:

Batch No: 55103
Sampled: 5/10/2017 1:25 PM

Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	139	mg/L	EPA 300	K Baros	5/11/2017 19:44	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	280	mg/L	SM 2320 B		5/11/2017 14:30	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/11/2017 14:30	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	280	mg/L	SM 2320 B		5/11/2017 14:30	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.52	mg/L	EPA 300	K Baros	5/11/2017 19:44	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	6.91	SU	SM 4500-H+B	C Watts	5/10/2017 17:00					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	864	mg/L	SM2540C	C Watts	5/17/2017 13:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			5/15/2017 13:44					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	184	mg/L	EPA 300	K Baros	5/11/2017 19:44	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			6/6/2017 7:35					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55103

QA Summary Report

Parameter	ID	Result	Ref Value	Amt Added	LOQ	Qualifer	Control	Flag	Comments
.Method Blank									
.- Chloride, IC	Q171422331	<1mg/L	0		1		1		Blank Acceptable.
5/11/2017 14:01									
Fluoride, IC	Q171422331	<0.25mg/L	0		0.25		0.25		Blank Acceptable.
5/11/2017 14:01									
Solids, Total Dissolved	Q171361012	<25mg/L	0		10		25		Blank Acceptable.
5/15/2017 12:00									
Solids, Total Dissolved	Q171381221	<25mg/L	0		10		25		Blank Acceptable.
5/17/2017 13:30									
Sulfate, IC	Q171422331	<1mg/L	0		1		1		Blank Acceptable.
5/11/2017 14:01									
Duplicate									
pH (Standard Units)	Q171310838	7.49SU	7.46		2	0.4%	20		Duplicate RPD Acceptable.
5/10/2017 17:00									
Solids, Total Dissolved	Q171381222	592mg/L	586		10	1.0%	20		Duplicate RPD Acceptable.
5/17/2017 13:30									
Solids, Total Dissolved	Q17136101B	408mg/L	404		10	1.0%	20		Duplicate RPD Acceptable.
5/15/2017 12:00									
Laboratory Control Standard									
.- Chloride, IC	Q171422333	25.9mg/L	25		1	103.6%	80 - 120		Standard Recovery Acceptable.
5/11/2017 14:39						3.5%	20		Standard RPD Acceptable.
Fluoride, IC	Q171422333	2.11mg/L	2		0.25	105.5%	80 - 120		Standard Recovery Acceptable.
5/11/2017 14:39						5.4%	20		Standard RPD Acceptable.
pH (Standard Units)	Q171310837	7.01SU	7		2	100.1%	80 - 120		Standard Recovery Acceptable.
5/10/2017 17:00						0.1%	20		Standard RPD Acceptable.
Sulfate, IC	Q171422333	26.4mg/L	25		1	105.6%	80 - 120		Standard Recovery Acceptable.
5/11/2017 14:39						5.4%	20		Standard RPD Acceptable.
Matrix Spike									
.- Chloride, IC	Q17142233A	81.9mg/L	82.1	25	1	99.2%	80 - 120		Spike Recovery Acceptable.
5/11/2017 16:33						0.2%	20		Spike RPD Acceptable.
Fluoride, IC	Q17142233A	2.98mg/L	3.15	2	0.25	91.5%	80 - 120		Spike Recovery Acceptable.
5/11/2017 16:33						5.5%	20		Spike RPD Acceptable.
Sulfate, IC	Q17142233A	84.2mg/L	83.9	25	1	101.2%	70 - 130		Spike Recovery Acceptable.
5/11/2017 16:33						0.4%	20		Spike RPD Acceptable.
Matrix Spike Dup									
.- Chloride, IC	Q17142233B	82.4mg/L	82.1	25	1	101.2%	80 - 120		Spike Recovery Acceptable.
5/11/2017 17:11						0.4%	20		Spike RPD Acceptable.
Fluoride, IC	Q17142233B	3.01mg/L	3.15	2	0.25	93.0%	80 - 120		Spike Recovery Acceptable.
5/11/2017 17:11						4.5%	20		Spike RPD Acceptable.
Sulfate, IC	Q17142233B	84.4mg/L	83.9	25	1	102.0%	70 - 130		Spike Recovery Acceptable.
5/11/2017 17:11						0.6%	20		Spike RPD Acceptable.

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55103

Flag and Qualifier Legend

Negative - Result Detected	***MDL = Method Detection Limit***	***DF = Dilution Factor***
Caution - Problem Detected	*LOQ = Limit of Quantitation*	***j = Analyte detected between MDL and LOQ***
Warning - Null Value	***S = surrogate standard out of limit***	***H = sample out of hold time***

MS, MSD, RPD- Failure may occur due to matrix interference, data released per QA plan

Tuesday, June 13, 2017 **B Environmental - LDMS QA Report Summary**

Note: THANK YOU!

DHL Analytical, Inc. **Date:** *17-May-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Lab Order: 1705109

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition and Standard Methods.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives except where noted in the following. For Total Metals Analysis, the recoveries of three analytes for the Matrix Spike and Matrix Spike Duplicate (1705109-04 MS/MSD) were below the method control limits. These are flagged accordingly in the QC Summary Report. These analytes were within method control limits in the associated LCS. No further corrective action was taken.

The Total and Dissolved Metals Analysis, the results Dissolved Lithium/Molybdenum for five samples were slightly higher than the results of Total Lithium/Molybdenum. The results were within acceptable analytical variation limits. No further corrective action was taken.

DHL Analytical, Inc.

Date: *17-May-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR Sampling (55103)
Lab Order: 1705109

Client Sample ID: MW-10
Lab ID: 1705109-01
Alternate ID: S171301614
Collection Date: 05/10/17 03:40 PM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	0.0118	0.00500	0.0100		mg/L	1	05/12/17 12:41 PM
Dissolved Molybdenum	0.0983	0.00200	0.00500		mg/L	1	05/12/17 12:41 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/15/17 01:32 PM
Arsenic	0.0146	0.00200	0.00500		mg/L	1	05/15/17 01:32 PM
Barium	0.0554	0.00300	0.0100		mg/L	1	05/15/17 01:32 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/15/17 01:32 PM
Boron	7.32	0.200	0.600		mg/L	20	05/16/17 11:46 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/15/17 01:32 PM
Calcium	56.1	2.00	6.00		mg/L	20	05/16/17 11:46 AM
Chromium	0.00533	0.00200	0.00500		mg/L	1	05/15/17 01:32 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	05/15/17 01:32 PM
Lead	0.000687	0.000300	0.00100	J	mg/L	1	05/15/17 01:32 PM
Lithium	0.0122	0.00500	0.0100		mg/L	1	05/15/17 01:32 PM
Magnesium	9.56	0.100	0.300		mg/L	1	05/15/17 01:32 PM
Molybdenum	0.102	0.00200	0.00500		mg/L	1	05/15/17 01:32 PM
Potassium	1.12	0.100	0.300		mg/L	1	05/15/17 01:32 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/15/17 01:32 PM
Sodium	133	2.00	6.00		mg/L	20	05/16/17 11:46 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/15/17 01:32 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/11/17 04:00 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	234	10.0	20.0		mg/L @ pH 4.52	1	05/11/17 01:22 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	05/11/17 01:22 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	05/11/17 01:22 PM
Alkalinity, Total (As CaCO3)	234	20.0	20.0		mg/L @ pH 4.52	1	05/11/17 01:22 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *17-May-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-10A
Project:	Coleto Creek Power	**Lab ID:**	1705109-02
Project No:	CCR Sampling (55103)	**Alternate ID:**	S171301619
Lab Order:	1705109	**Collection Date:**	05/10/17 04:12 PM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	0.0231	0.00500	0.0100		mg/L	1	05/12/17 12:42 PM
Dissolved Molybdenum	0.00508	0.00200	0.00500		mg/L	1	05/12/17 12:42 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/15/17 01:34 PM
Arsenic	0.00526	0.00200	0.00500		mg/L	1	05/15/17 01:34 PM
Barium	0.0988	0.00300	0.0100		mg/L	1	05/15/17 01:34 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/15/17 01:34 PM
Boron	0.416	0.0100	0.0300		mg/L	1	05/16/17 12:26 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/15/17 01:34 PM
Calcium	170	2.00	6.00		mg/L	20	05/16/17 11:48 AM
Chromium	0.00563	0.00200	0.00500		mg/L	1	05/15/17 01:34 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	05/15/17 01:34 PM
Lead	0.000653	0.000300	0.00100	J	mg/L	1	05/15/17 01:34 PM
Lithium	0.0228	0.00500	0.0100		mg/L	1	05/15/17 01:34 PM
Magnesium	30.5	2.00	6.00		mg/L	20	05/16/17 11:48 AM
Molybdenum	0.00581	0.00200	0.00500		mg/L	1	05/15/17 01:34 PM
Potassium	1.89	0.100	0.300		mg/L	1	05/15/17 01:34 PM
Selenium	0.00229	0.00200	0.00500	J	mg/L	1	05/15/17 01:34 PM
Sodium	172	2.00	6.00		mg/L	20	05/16/17 11:48 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/15/17 01:34 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/11/17 04:03 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	321	10.0	20.0		mg/L @ pH 4.53	1	05/11/17 01:35 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	05/11/17 01:35 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	05/11/17 01:35 PM
Alkalinity, Total (As CaCO3)	321	20.0	20.0		mg/L @ pH 4.53	1	05/11/17 01:35 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *17-May-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-9
Project:	Coleto Creek Power	**Lab ID:**	1705109-03
Project No:	CCR Sampling (55103)	**Alternate ID:**	S171301620
Lab Order:	1705109	**Collection Date:**	05/10/17 08:18 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	<0.00500	0.00500	0.0100		mg/L	1	05/12/17 12:44 PM
Dissolved Molybdenum	0.0925	0.00200	0.00500		mg/L	1	05/12/17 12:44 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/15/17 01:36 PM
Arsenic	0.00996	0.00200	0.00500		mg/L	1	05/15/17 01:36 PM
Barium	0.105	0.00300	0.0100		mg/L	1	05/15/17 01:36 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/15/17 01:36 PM
Boron	3.16	0.100	0.300		mg/L	10	05/16/17 11:50 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/15/17 01:36 PM
Calcium	52.7	1.00	3.00		mg/L	10	05/16/17 11:50 AM
Chromium	0.00264	0.00200	0.00500	J	mg/L	1	05/15/17 01:36 PM
Cobalt	0.00302	0.00300	0.00500	J	mg/L	1	05/15/17 01:36 PM
Lead	0.00433	0.000300	0.00100		mg/L	1	05/15/17 01:36 PM
Lithium	0.00533	0.00500	0.0100	J	mg/L	1	05/15/17 01:36 PM
Magnesium	6.86	0.100	0.300		mg/L	1	05/15/17 01:36 PM
Molybdenum	0.0900	0.00200	0.00500		mg/L	1	05/15/17 01:36 PM
Potassium	0.996	0.100	0.300		mg/L	1	05/15/17 01:36 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/15/17 01:36 PM
Sodium	61.7	1.00	3.00		mg/L	10	05/16/17 11:50 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/15/17 01:36 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/11/17 04:05 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	133	10.0	20.0		mg/L @ pH 4.5	1	05/11/17 01:46 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.5	1	05/11/17 01:46 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.5	1	05/11/17 01:46 PM
Alkalinity, Total (As CaCO3)	133	20.0	20.0		mg/L @ pH 4.5	1	05/11/17 01:46 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
	C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
	E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
	RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *17-May-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR Sampling (55103)
Lab Order: 1705109

Client Sample ID: MW-9A
Lab ID: 1705109-04
Alternate ID: S171301621
Collection Date: 05/10/17 08:58 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	0.00560	0.00500	0.0100	J	mg/L	1	05/12/17 12:37 PM
Dissolved Molybdenum	0.0796	0.00200	0.00500		mg/L	1	05/12/17 12:37 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/15/17 12:51 PM
Arsenic	0.00990	0.00200	0.00500		mg/L	1	05/15/17 12:51 PM
Barium	0.0988	0.00300	0.0100		mg/L	1	05/15/17 12:51 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/15/17 12:51 PM
Boron	3.43	0.100	0.300		mg/L	10	05/16/17 11:42 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/15/17 12:51 PM
Calcium	65.3	1.00	3.00		mg/L	10	05/16/17 11:42 AM
Chromium	0.00289	0.00200	0.00500	J	mg/L	1	05/15/17 12:51 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	05/15/17 12:51 PM
Lead	0.00114	0.000300	0.00100		mg/L	1	05/15/17 12:51 PM
Lithium	0.00630	0.00500	0.0100	J	mg/L	1	05/15/17 12:51 PM
Magnesium	8.32	0.100	0.300		mg/L	1	05/15/17 12:51 PM
Molybdenum	0.0806	0.00200	0.00500		mg/L	1	05/15/17 12:51 PM
Potassium	0.848	0.100	0.300		mg/L	1	05/15/17 12:51 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/15/17 12:51 PM
Sodium	63.3	1.00	3.00		mg/L	10	05/16/17 11:42 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/15/17 12:51 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/11/17 04:07 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	128	10.0	20.0		mg/L @ pH 4.5	1	05/11/17 01:51 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.5	1	05/11/17 01:51 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.5	1	05/11/17 01:51 PM
Alkalinity, Total (As CaCO3)	128	20.0	20.0		mg/L @ pH 4.5	1	05/11/17 01:51 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *17-May-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-5
Project:	Coleto Creek Power	**Lab ID:**	1705109-05
Project No:	CCR Sampling (55103)	**Alternate ID:**	S171301622
Lab Order:	1705109	**Collection Date:**	05/10/17 11:12 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	0.0190	0.00500	0.0100		mg/L	1	05/12/17 12:46 PM
Dissolved Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	05/12/17 12:46 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/15/17 01:38 PM
Arsenic	0.00955	0.00200	0.00500		mg/L	1	05/15/17 01:38 PM
Barium	0.0706	0.00300	0.0100		mg/L	1	05/15/17 01:38 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/15/17 01:38 PM
Boron	0.115	0.0100	0.0300		mg/L	1	05/16/17 12:28 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/15/17 01:38 PM
Calcium	114	2.00	6.00		mg/L	20	05/16/17 11:52 AM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	05/15/17 01:38 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	05/15/17 01:38 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	05/15/17 01:38 PM
Lithium	0.0179	0.00500	0.0100		mg/L	1	05/15/17 01:38 PM
Magnesium	22.1	0.100	0.300		mg/L	1	05/15/17 01:38 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	05/15/17 01:38 PM
Potassium	1.53	0.100	0.300		mg/L	1	05/15/17 01:38 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/15/17 01:38 PM
Sodium	127	2.00	6.00		mg/L	20	05/16/17 11:52 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/15/17 01:38 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/11/17 04:23 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	276	10.0	20.0		mg/L @ pH 4.52	1	05/11/17 02:07 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	05/11/17 02:07 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	05/11/17 02:07 PM
Alkalinity, Total (As CaCO3)	276	20.0	20.0		mg/L @ pH 4.52	1	05/11/17 02:07 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *17-May-17*

CLIENT:	B-Environmental	**Client Sample ID:**	PS-3
Project:	Coleto Creek Power	**Lab ID:**	1705109-06
Project No:	CCR Sampling (55103)	**Alternate ID:**	S171301623
Lab Order:	1705109	**Collection Date:**	05/10/17 01:57 PM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	0.00850	0.00500	0.0100	J	mg/L	1	05/12/17 12:48 PM
Dissolved Molybdenum	0.00520	0.00200	0.00500		mg/L	1	05/12/17 12:48 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/15/17 01:40 PM
Arsenic	0.00887	0.00200	0.00500		mg/L	1	05/15/17 01:40 PM
Barium	0.105	0.00300	0.0100		mg/L	1	05/15/17 01:40 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/15/17 01:40 PM
Boron	1.45	0.100	0.300		mg/L	10	05/16/17 11:54 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/15/17 01:40 PM
Calcium	40.0	1.00	3.00		mg/L	10	05/16/17 11:54 AM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	05/15/17 01:40 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	05/15/17 01:40 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	05/15/17 01:40 PM
Lithium	0.00907	0.00500	0.0100	J	mg/L	1	05/15/17 01:40 PM
Magnesium	3.70	0.100	0.300		mg/L	1	05/15/17 01:40 PM
Molybdenum	0.00524	0.00200	0.00500		mg/L	1	05/15/17 01:40 PM
Potassium	2.25	0.100	0.300		mg/L	1	05/15/17 01:40 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/15/17 01:40 PM
Sodium	65.0	1.00	3.00		mg/L	10	05/16/17 11:54 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/15/17 01:40 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/11/17 04:25 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	155	10.0	20.0		mg/L @ pH 4.5	1	05/11/17 02:13 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.5	1	05/11/17 02:13 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.5	1	05/11/17 02:13 PM
Alkalinity, Total (As CaCO3)	155	20.0	20.0		mg/L @ pH 4.5	1	05/11/17 02:13 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *17-May-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-11
Project:	Coleto Creek Power	**Lab ID:**	1705109-07
Project No:	CCR Sampling (55103)	**Alternate ID:**	S171301625
Lab Order:	1705109	**Collection Date:**	05/10/17 01:25 PM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	0.0122	0.00500	0.0100		mg/L	1	05/12/17 12:49 PM
Dissolved Molybdenum	0.00866	0.00200	0.00500		mg/L	1	05/12/17 12:49 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/15/17 01:42 PM
Arsenic	0.0156	0.00200	0.00500		mg/L	1	05/15/17 01:42 PM
Barium	0.0899	0.00300	0.0100		mg/L	1	05/15/17 01:42 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/15/17 01:42 PM
Boron	1.35	0.100	0.300		mg/L	10	05/16/17 11:56 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/15/17 01:42 PM
Calcium	64.1	1.00	3.00		mg/L	10	05/16/17 11:56 AM
Chromium	0.00259	0.00200	0.00500	J	mg/L	1	05/15/17 01:42 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	05/15/17 01:42 PM
Lead	0.00239	0.000300	0.00100		mg/L	1	05/15/17 01:42 PM
Lithium	0.0125	0.00500	0.0100		mg/L	1	05/15/17 01:42 PM
Magnesium	5.21	0.100	0.300		mg/L	1	05/15/17 01:42 PM
Molybdenum	0.00820	0.00200	0.00500		mg/L	1	05/15/17 01:42 PM
Potassium	1.65	0.100	0.300		mg/L	1	05/15/17 01:42 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/15/17 01:42 PM
Sodium	63.3	1.00	3.00		mg/L	10	05/16/17 11:56 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/15/17 01:42 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/11/17 04:28 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	146	10.0	20.0		mg/L @ pH 4.53	1	05/11/17 02:19 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	05/11/17 02:19 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	05/11/17 02:19 PM
Alkalinity, Total (As CaCO3)	146	20.0	20.0		mg/L @ pH 4.53	1	05/11/17 02:19 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *17-May-17*

CLIENT:	B-Environmental	**Client Sample ID:**	DUP
Project:	Coleto Creek Power	**Lab ID:**	1705109-08
Project No:	CCR Sampling (55103)	**Alternate ID:**	S171301626
Lab Order:	1705109	**Collection Date:**	05/10/17
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	0.0192	0.00500	0.0100		mg/L	1	05/12/17 12:51 PM
Dissolved Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	05/12/17 12:51 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/15/17 01:44 PM
Arsenic	0.00957	0.00200	0.00500		mg/L	1	05/15/17 01:44 PM
Barium	0.0703	0.00300	0.0100		mg/L	1	05/15/17 01:44 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/15/17 01:44 PM
Boron	0.113	0.0100	0.0300		mg/L	1	05/16/17 12:30 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/15/17 01:44 PM
Calcium	115	2.00	6.00		mg/L	20	05/16/17 11:58 AM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	05/15/17 01:44 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	05/15/17 01:44 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	05/15/17 01:44 PM
Lithium	0.0183	0.00500	0.0100		mg/L	1	05/15/17 01:44 PM
Magnesium	22.1	0.100	0.300		mg/L	1	05/15/17 01:44 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	05/15/17 01:44 PM
Potassium	1.54	0.100	0.300		mg/L	1	05/15/17 01:44 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/15/17 01:44 PM
Sodium	130	2.00	6.00		mg/L	20	05/16/17 11:58 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/15/17 01:44 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/11/17 04:30 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	280	10.0	20.0		mg/L @ pH 4.51	1	05/11/17 02:30 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	05/11/17 02:30 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	05/11/17 02:30 PM
Alkalinity, Total (As CaCO3)	280	20.0	20.0		mg/L @ pH 4.51	1	05/11/17 02:30 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc. **Date:** *17-May-17*

CLIENT: B-Environmental
Work Order: 1705109
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_170511A

The QC data in batch 80421 applies to the following samples: 1705109-01A, 1705109-02A, 1705109-03A, 1705109-04A, 1705109-05A, 1705109-06A, 1705109-07A, 1705109-08A

Sample ID MB-80421	Batch ID: 80421	TestNo: SW7470A	Units: mg/L
SampType: MBLK	Run ID: CETAC2_HG_170511A	Analysis Date: 5/11/2017 3:38:16 PM	Prep Date: 5/11/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.0000800	0.000200								

Sample ID LCS-80421	Batch ID: 80421	TestNo: SW7470A	Units: mg/L
SampType: LCS	Run ID: CETAC2_HG_170511A	Analysis Date: 5/11/2017 3:42:48 PM	Prep Date: 5/11/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00200	0.000200	0.00200	0	100	85	115			

Sample ID LCSD-80421	Batch ID: 80421	TestNo: SW7470A	Units: mg/L
SampType: LCSD	Run ID: CETAC2_HG_170511A	Analysis Date: 5/11/2017 3:45:04 PM	Prep Date: 5/11/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00203	0.000200	0.00200	0	102	85	115	1.49	15	

Sample ID 1705109-04A SD	Batch ID: 80421	TestNo: SW7470A	Units: mg/L
SampType: SD	Run ID: CETAC2_HG_170511A	Analysis Date: 5/11/2017 4:09:59 PM	Prep Date: 5/11/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.000400	0.00100	0	0				0	10	

Sample ID 1705109-04A PDS	Batch ID: 80421	TestNo: SW7470A	Units: mg/L
SampType: PDS	Run ID: CETAC2_HG_170511A	Analysis Date: 5/11/2017 4:12:15 PM	Prep Date: 5/11/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00243	0.000200	0.00250	0	97.2	85	115			

Sample ID 1705109-04A MS	Batch ID: 80421	TestNo: SW7470A	Units: mg/L
SampType: MS	Run ID: CETAC2_HG_170511A	Analysis Date: 5/11/2017 4:14:31 PM	Prep Date: 5/11/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00201	0.000200	0.00200	0	101	80	120			

Sample ID 1705109-04A MSD	Batch ID: 80421	TestNo: SW7470A	Units: mg/L
SampType: MSD	Run ID: CETAC2_HG_170511A	Analysis Date: 5/11/2017 4:16:47 PM	Prep Date: 5/11/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00203	0.000200	0.00200	0	102	80	120	0.990	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705109
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170515B

The QC data in batch 80418 applies to the following samples: 1705109-01A, 1705109-02A, 1705109-03A, 1705109-04A, 1705109-05A, 1705109-06A, 1705109-07A, 1705109-08A

Sample ID **MB-80418** Batch ID: **80418** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS4_170515B** Analysis Date: **5/15/2017 12:43:00 PM** Prep Date: **5/11/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.000800	0.00250								
Arsenic	<0.00200	0.00500								
Barium	<0.00300	0.0100								
Beryllium	<0.000300	0.00100								
Cadmium	<0.000300	0.00100								
Calcium	<0.100	0.300								
Chromium	<0.00200	0.00500								
Cobalt	<0.00300	0.00500								
Lead	<0.000300	0.00100								
Lithium	<0.00500	0.0100								
Magnesium	<0.100	0.300								
Molybdenum	<0.00200	0.00500								
Potassium	<0.100	0.300								
Selenium	<0.00200	0.00500								
Thallium	<0.000500	0.00150								

Sample ID **LCS-80418** Batch ID: **80418** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS4_170515B** Analysis Date: **5/15/2017 12:45:00 PM** Prep Date: **5/11/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.190	0.00250	0.200	0	95.1	80	120			
Arsenic	0.193	0.00500	0.200	0	96.4	80	120			
Barium	0.191	0.0100	0.200	0	95.5	80	120			
Beryllium	0.183	0.00100	0.200	0	91.6	80	120			
Cadmium	0.189	0.00100	0.200	0	94.6	80	120			
Calcium	4.66	0.300	5.00	0	93.2	80	120			
Chromium	0.195	0.00500	0.200	0	97.3	80	120			
Cobalt	0.192	0.00500	0.200	0	95.9	80	120			
Lead	0.192	0.00100	0.200	0	96.0	80	120			
Lithium	0.185	0.0100	0.200	0	92.6	80	120			
Magnesium	4.79	0.300	5.00	0	95.7	80	120			
Molybdenum	0.188	0.00500	0.200	0	93.8	80	120			
Potassium	4.87	0.300	5.00	0	97.5	80	120			
Selenium	0.192	0.00500	0.200	0	96.0	80	120			
Thallium	0.193	0.00150	0.200	0	96.6	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705109
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170515B

Sample ID **LCSD-80418** Batch ID: **80418** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS4_170515B** Analysis Date: **5/15/2017 12:47:00 PM** Prep Date: **5/11/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.188	0.00250	0.200	0	94.2	80	120	0.908	15	
Arsenic	0.193	0.00500	0.200	0	96.7	80	120	0.334	15	
Barium	0.190	0.0100	0.200	0	95.0	80	120	0.466	15	
Beryllium	0.184	0.00100	0.200	0	92.0	80	120	0.439	15	
Cadmium	0.190	0.00100	0.200	0	94.8	80	120	0.204	15	
Calcium	4.62	0.300	5.00	0	92.4	80	120	0.833	15	
Chromium	0.194	0.00500	0.200	0	96.8	80	120	0.485	15	
Cobalt	0.193	0.00500	0.200	0	96.4	80	120	0.520	15	
Lead	0.190	0.00100	0.200	0	94.8	80	120	1.22	15	
Lithium	0.183	0.0100	0.200	0	91.7	80	120	1.00	15	
Magnesium	4.74	0.300	5.00	0	94.7	80	120	1.02	15	
Molybdenum	0.187	0.00500	0.200	0	93.4	80	120	0.502	15	
Potassium	4.85	0.300	5.00	0	96.9	80	120	0.552	15	
Selenium	0.193	0.00500	0.200	0	96.6	80	120	0.619	15	
Thallium	0.191	0.00150	0.200	0	95.4	80	120	1.25	15	

Sample ID **1705109-04A SD** Batch ID: **80418** TestNo: **SW6020A** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS4_170515B** Analysis Date: **5/15/2017 12:53:00 PM** Prep Date: **5/11/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.00400	0.0125	0	0				0	10	
Arsenic	<0.0100	0.0250	0	0.00990				0	10	
Barium	0.0982	0.0500	0	0.0988				0.645	10	
Beryllium	<0.00150	0.00500	0	0				0	10	
Cadmium	<0.00150	0.00500	0	0				0	10	
Chromium	<0.0100	0.0250	0	0.00289				0	10	
Cobalt	<0.0150	0.0250	0	0				0	10	
Lead	<0.00150	0.00500	0	0.00114				0	10	
Lithium	<0.0250	0.0500	0	0.00630				0	10	
Magnesium	8.52	1.50	0	8.32				2.39	10	
Molybdenum	0.0803	0.0250	0	0.0806				0.383	10	
Potassium	0.902	1.50	0	0.848				6.19	10	
Selenium	<0.0100	0.0250	0	0				0	10	
Thallium	<0.00250	0.00750	0	0				0	10	

Sample ID **1705109-04A PDS** Batch ID: **80418** TestNo: **SW6020A** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS4_170515B** Analysis Date: **5/15/2017 1:13:00 PM** Prep Date: **5/11/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.188	0.00250	0.200	0	93.8	80	120			
Arsenic	0.210	0.00500	0.200	0.00990	100	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705109
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170515B

Sample ID **1705109-04A PDS** Batch ID: **80418** TestNo: **SW6020A** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS4_170515B** Analysis Date: **5/15/2017 1:13:00 PM** Prep Date: **5/11/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.290	0.0100	0.200	0.0988	95.5	80	120			
Beryllium	0.189	0.00100	0.200	0	94.5	80	120			
Cadmium	0.190	0.00100	0.200	0	95.0	80	120			
Chromium	0.206	0.00500	0.200	0.00289	102	80	120			
Cobalt	0.199	0.00500	0.200	0	99.7	80	120			
Lead	0.198	0.00100	0.200	0.00114	98.5	80	120			
Lithium	0.191	0.0100	0.200	0.00630	92.2	80	120			
Magnesium	12.6	0.300	5.00	8.32	85.3	80	120			
Molybdenum	0.267	0.00500	0.200	0.0806	93.3	80	120			
Potassium	5.84	0.300	5.00	0.848	99.8	80	120			
Selenium	0.190	0.00500	0.200	0	94.8	80	120			
Thallium	0.200	0.00150	0.200	0	99.8	80	120			

Sample ID **1705109-04A MS** Batch ID: **80418** TestNo: **SW6020A** Units: **mg/L**
SampType: **MS** Run ID: **ICP-MS4_170515B** Analysis Date: **5/15/2017 1:15:00 PM** Prep Date: **5/11/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.192	0.00250	0.200	0	96.2	80	120			
Arsenic	0.205	0.00500	0.200	0.00990	97.4	80	120			
Barium	0.283	0.0100	0.200	0.0988	91.9	80	120			
Beryllium	0.180	0.00100	0.200	0	90.2	80	120			
Cadmium	0.183	0.00100	0.200	0	91.6	80	120			
Calcium	65.0	0.300	5.00	63.0	41.0	80	120			S
Chromium	0.194	0.00500	0.200	0.00289	95.6	80	120			
Cobalt	0.192	0.00500	0.200	0	96.0	80	120			
Lead	0.194	0.00100	0.200	0.00114	96.4	80	120			
Lithium	0.188	0.0100	0.200	0.00630	90.7	80	120			
Magnesium	12.6	0.300	5.00	8.32	85.9	80	120			
Molybdenum	0.268	0.00500	0.200	0.0806	93.5	80	120			
Potassium	5.64	0.300	5.00	0.848	95.9	80	120			
Selenium	0.184	0.00500	0.200	0	92.2	80	120			
Thallium	0.196	0.00150	0.200	0	97.8	80	120			

Sample ID **1705109-04A MSD** Batch ID: **80418** TestNo: **SW6020A** Units: **mg/L**
SampType: **MSD** Run ID: **ICP-MS4_170515B** Analysis Date: **5/15/2017 1:17:00 PM** Prep Date: **5/11/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.192	0.00250	0.200	0	95.8	80	120	0.421	15	
Arsenic	0.207	0.00500	0.200	0.00990	98.5	80	120	1.02	15	
Barium	0.285	0.0100	0.200	0.0988	93.0	80	120	0.775	15	
Beryllium	0.182	0.00100	0.200	0	91.1	80	120	1.05	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705109
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170515B

Sample ID **1705109-04A MSD** Batch ID: **80418** TestNo: **SW6020A** Units: **mg/L**
SampType: **MSD** Run ID: **ICP-MS4_170515B** Analysis Date: **5/15/2017 1:17:00 PM** Prep Date: **5/11/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.184	0.00100	0.200	0	91.9	80	120	0.317	15	
Calcium	65.0	0.300	5.00	63.0	41.4	80	120	0.029	15	S
Chromium	0.195	0.00500	0.200	0.00289	96.2	80	120	0.591	15	
Cobalt	0.194	0.00500	0.200	0	96.9	80	120	0.895	15	
Lead	0.195	0.00100	0.200	0.00114	96.8	80	120	0.322	15	
Lithium	0.187	0.0100	0.200	0.00630	90.3	80	120	0.329	15	
Magnesium	12.6	0.300	5.00	8.32	85.1	80	120	0.326	15	
Molybdenum	0.269	0.00500	0.200	0.0806	94.1	80	120	0.439	15	
Potassium	5.62	0.300	5.00	0.848	95.5	80	120	0.360	15	
Selenium	0.186	0.00500	0.200	0	92.8	80	120	0.649	15	
Thallium	0.196	0.00150	0.200	0	97.8	80	120	0.040	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705109
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170516A

The QC data in batch 80418 applies to the following samples: 1705109-01A, 1705109-02A, 1705109-03A, 1705109-04A, 1705109-05A, 1705109-06A, 1705109-07A, 1705109-08A

Sample ID **MB-80418** Batch ID: **80418** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS4_170516A** Analysis Date: **5/16/2017 11:34:00 AM** Prep Date: **5/11/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	<0.0100	0.0300								
Sodium	<0.100	0.300								

Sample ID **LCS-80418** Batch ID: **80418** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS4_170516A** Analysis Date: **5/16/2017 11:36:00 AM** Prep Date: **5/11/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.198	0.0300	0.200	0	99.0	80	120			
Sodium	4.84	0.300	5.00	0	96.7	80	120			

Sample ID **LCSD-80418** Batch ID: **80418** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS4_170516A** Analysis Date: **5/16/2017 11:38:00 AM** Prep Date: **5/11/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.196	0.0300	0.200	0	97.8	80	120	1.21	15	
Sodium	4.80	0.300	5.00	0	95.9	80	120	0.828	15	

Sample ID **1705109-04A SD** Batch ID: **80418** TestNo: **SW6020A** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS4_170516A** Analysis Date: **5/16/2017 11:44:00 AM** Prep Date: **5/11/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	3.67	1.50	0	3.43				6.63	10	
Calcium	65.8	15.0	0	65.3				0.880	10	
Sodium	63.6	15.0	0	63.2				0.545	10	

Sample ID **1705109-04A PDS** Batch ID: **80418** TestNo: **SW6020A** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS4_170516A** Analysis Date: **5/16/2017 12:00:00 PM** Prep Date: **5/11/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	5.38	0.300	2.00	3.43	97.2	80	120			
Calcium	106	3.00	50.0	65.3	81.0	80	120			
Sodium	107	3.00	50.0	63.3	88.4	80	120			

Sample ID **1705109-04A MS** Batch ID: **80418** TestNo: **SW6020A** Units: **mg/L**
SampType: **MS** Run ID: **ICP-MS4_170516A** Analysis Date: **5/16/2017 12:02:00 PM** Prep Date: **5/11/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	3.50	0.300	0.200	3.43	35.2	80	120			S
Sodium	65.5	3.00	5.00	63.3	44.4	80	120			S

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705109
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170516A

Sample ID	1705109-04A MSD	Batch ID:	80418	TestNo:	SW6020A	Units:	mg/L
SampType:	MSD	Run ID:	ICP-MS4_170516A	Analysis Date:	5/16/2017 12:04:00 PM	Prep Date:	5/11/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	3.51	0.300	0.200	3.43	36.8	80	120	0.092	15	S
Sodium	65.2	3.00	5.00	63.3	37.9	80	120	0.499	15	S

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705109
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170512A

The QC data in batch 80419 applies to the following samples: 1705109-01B, 1705109-02B, 1705109-03B, 1705109-04B, 1705109-05B, 1705109-06B, 1705109-07B, 1705109-08B

Sample ID **MB-80419** Batch ID: **80419** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS5_170512A** Analysis Date: **5/12/2017 12:30:00 PM** Prep Date: **5/11/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.00500	0.0100								
Molybdenum	<0.00200	0.00500								

Sample ID **LCS-80419** Batch ID: **80419** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS5_170512A** Analysis Date: **5/12/2017 12:32:00 PM** Prep Date: **5/11/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.190	0.0100	0.200	0	95.2	80	120			
Molybdenum	0.192	0.00500	0.200	0	95.8	80	120			

Sample ID **LCSD-80419** Batch ID: **80419** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS5_170512A** Analysis Date: **5/12/2017 12:34:00 PM** Prep Date: **5/11/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.193	0.0100	0.200	0	96.3	80	120	1.10	15	
Molybdenum	0.194	0.00500	0.200	0	97.2	80	120	1.45	15	

Sample ID **1705109-04B SD** Batch ID: **80419** TestNo: **SW6020A** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS5_170512A** Analysis Date: **5/12/2017 12:39:00 PM** Prep Date: **5/11/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.0250	0.0500	0	0.00560				0	10	
Molybdenum	0.0781	0.0250	0	0.0796				1.86	10	

Sample ID **1705109-04B PDS** Batch ID: **80419** TestNo: **SW6020A** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS5_170512A** Analysis Date: **5/12/2017 12:53:00 PM** Prep Date: **5/11/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.192	0.0100	0.200	0.00560	93.4	80	120			
Molybdenum	0.262	0.00500	0.200	0.0796	91.4	80	120			

Sample ID **1705109-04B MS** Batch ID: **80419** TestNo: **SW6020A** Units: **mg/L**
SampType: **MS** Run ID: **ICP-MS5_170512A** Analysis Date: **5/12/2017 12:55:00 PM** Prep Date: **5/11/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Lithium	0.200	0.0100	0.200	0.00560	97.1	80	120			
Dissolved Molybdenum	0.273	0.00500	0.200	0.0796	96.9	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705109
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170512A

Sample ID **1705109-04B MSD**	Batch ID: **80419**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **MSD**	Run ID: **ICP-MS5_170512A**	Analysis Date: **5/12/2017 12:56:00 PM**	Prep Date: **5/11/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Lithium	0.202	0.0100	0.200	0.00560	98.0	80	120	0.861	15	
Dissolved Molybdenum	0.272	0.00500	0.200	0.0796	96.1	80	120	0.572	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705109
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_170511A

The QC data in batch 80423 applies to the following samples: 1705109-01C, 1705109-02C, 1705109-03C, 1705109-04C, 1705109-05C, 1705109-06C, 1705109-07C, 1705109-08C

Sample ID **MB-80423** Batch ID: **80423** TestNo: **M2320 B** Units: **mg/L @ pH 4.25**
SampType: **MBLK** Run ID: **TITRATOR_170511A** Analysis Date: **5/11/2017 11:48:00 AM** Prep Date: **5/11/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0								
Alkalinity, Total (As CaCO3)	<20.0	20.0								

Sample ID **LCS-80423** Batch ID: **80423** TestNo: **M2320 B** Units: **mg/L @ pH 4.1**
SampType: **LCS** Run ID: **TITRATOR_170511A** Analysis Date: **5/11/2017 11:52:00 AM** Prep Date: **5/11/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	52.4	20.0	50.00	0	105	74	129			

Sample ID **1705092-01C-DUP** Batch ID: **80423** TestNo: **M2320 B** Units: **mg/L @ pH 4.49**
SampType: **DUP** Run ID: **TITRATOR_170511A** Analysis Date: **5/11/2017 12:22:00 PM** Prep Date: **5/11/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	<20.0	20.0	0	0				0	20	

Sample ID **1705109-04C-DUP** Batch ID: **80423** TestNo: **M2320 B** Units: **mg/L @ pH 4.52**
SampType: **DUP** Run ID: **TITRATOR_170511A** Analysis Date: **5/11/2017 1:57:00 PM** Prep Date: **5/11/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	132	20.0	0	127.8				2.85	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	132	20.0	0	127.8				2.85	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01347
Client Sample ID: S171301614 (Batch 55103)
Sample Collection Date: 05/09/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01347-001
Date Received: 05/12/17
Report Date: 06/07/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.306	0.180	0.235	0.098	NP	Q	pCi/L	ARS-010/EPA 903.0/904.0	06/02/17 7:38	SCAUSEY	88%
Ra-228	0.582	0.758	1.267	0.587	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	05/26/17 12:23	SCAUSEY	85%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01347
Client Sample ID: S171301619 (Batch 55103)
Sample Collection Date: 05/09/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01347-002
Date Received: 05/12/17
Report Date: 06/07/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.270	0.171	0.223	0.091	NP	Q	pCi/L	ARS-010/EPA 903.0/904.0	06/02/17 7:37	SCAUSEY	93%
Ra-228	0.524	0.759	1.279	0.596	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	05/26/17 12:23	SCAUSEY	90%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01347
Client Sample ID: S171301620 (Batch 55103)
Sample Collection Date: 05/10/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01347-003
Date Received: 05/12/17
Report Date: 06/07/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.285	0.164	0.200	0.081	NP	Q	pCi/L	ARS-010/EPA 903.0/904.0	06/02/17 7:37	SCAUSEY	97%
Ra-228	0.195	0.677	1.191	0.553	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	05/26/17 12:23	SCAUSEY	91%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01347
Client Sample ID: S171301621 (Batch 55103)
Sample Collection Date: 05/10/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01347-004
Date Received: 05/12/17
Report Date: 06/07/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.134	0.124	0.184	0.072	NP	U,Q	pCi/L	ARS-010/EPA 903.0/904.0	06/02/17 7:37	SCAUSEY	97%
Ra-228	0.483	0.736	1.246	0.580	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	05/26/17 12:23	SCAUSEY	89%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01347
Client Sample ID: S171301622 (Batch 55103)
Sample Collection Date: 05/10/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01347-005
Date Received: 05/12/17
Report Date: 06/07/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.306	0.153	0.148	0.054	NP	Q	pCi/L	ARS-010/EPA 903.0/904.0	06/02/17 7:38	SCAUSEY	94%
Ra-228	0.309	0.679	1.176	0.545	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	05/26/17 12:23	SCAUSEY	88%

Project Manager Review

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01347
Client Sample ID: S171301623 (Batch 55103)
Sample Collection Date: 05/10/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01347-006
Date Received: 05/12/17
Report Date: 06/07/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.090	0.101	0.159	0.060	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/06/17 7:35	SCAUSEY	102%
Ra-228	0.022	0.616	1.111	0.515	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	05/30/17 12:46	SCAUSEY	94%

Project Manager Review

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01347
Client Sample ID: S171301625 (Batch 55103)
Sample Collection Date: 05/10/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01347-007
Date Received: 05/12/17
Report Date: 06/07/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.130	0.114	0.163	0.062	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/06/17 7:35	SCAUSEY	91%
Ra-228	0.326	0.670	1.157	0.535	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	05/30/17 12:46	SCAUSEY	82%

Project Manager Review

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01347
Client Sample ID: S171301626 (Batch 55103)
Sample Collection Date: 05/10/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01347-008
Date Received: 05/12/17
Report Date: 06/07/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.112	0.099	0.138	0.051	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/06/17 7:35	SCAUSEY	105%
Ra-228	-0.279	0.535	1.022	0.472	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	05/30/17 12:46	SCAUSEY	107%

Project Manager Review

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

INTERNATIONAL

QC Results Report

Sample Delivery Group: ARS1-17-01347

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-01012	LCS	RA-226	20.646	3.347	0.095	27.656	N/A	pCi/L	ARS-010/EPA 903	6/2/17 9:37	SC	75	75%-125%
ARS1-B17-01012	LCS	RA-228	33.612	5.630	1.107	39.784	N/A	pCi/L	ARS-010/EPA 904	5/26/17 14:22	SC	84	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-01012	MBL	RA-226	0.295	0.111	0.089	NA		pCi/L	ARS-010/EPA 903	6/2/17 9:37	SC
ARS1-B17-01012	MBL	RA-228	0.348	0.378	0.621	NA	U	pCi/L	ARS-010/EPA 904	5/26/17 14:22	SC

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-01012	LCSD	RA-226	20.646	3.347	27.623	4.457	N/A	pCi/L	ARS-010/EPA 903	6/2/17 9:37	SC	0.89	< 1
ARS1-B17-01012	LCSD	RA-228	33.612	5.630	37.322	6.204	N/A	pCi/L	ARS-010/EPA 904	5/26/17 14:22	SC	0.31	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-01012	LCSD	RA-226	20.646	3.347	27.623	4.457	N/A	pCi/L	ARS-010/EPA 903	6/2/17 9:37	SC	1.25	< 3
ARS1-B17-01012	LCSD	RA-228	33.612	5.630	37.322	6.204	N/A	pCi/L	ARS-010/EPA 904	5/26/17 14:22	SC	0.44	< 3

Matrix Spike

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery(%)	MS Acceptance Range
ARS1-B17-01012	MS	Ra-226	57.796	9.299	0.128	56.066	N/A	pCi/L	ARS-010/EPA 903	6/2/17 9:37	SC	103	60%-140%
ARS1-B17-01012	MSD	Ra-226	58.454	9.404	0.139	55.636	N/A	pCi/L	ARS-010/EPA 903	6/2/17 9:37	SC	105	60%-140%
ARS1-B17-01012	MS	Ra-228	38.794	6.527	1.144	52.792	N/A	pCi/L	ARS-010/EPA 904	5/26/17 14:22	SC	73	60%-140%
ARS1-B17-01012	MSD	Ra-228	46.116	7.685	1.414	52.325	N/A	pCi/L	ARS-010/EPA 904	5/26/17 14:22	SC	88	60%-140%

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

QC Results Report

Sample Delivery Group: ARS1-17-01347;1440

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-01040	LCS	RA-226	30.504	4.906	0.092	30.667	N/A	pCi/L	ARS-010/EPA 903	6/6/17 9:35	SC	99	75%-125%
ARS1-B17-01040	LCS	RA-228	39.143	6.485	1.035	39.784	N/A	pCi/L	ARS-010/EPA 904	5/30/17 14:45	SC	98	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-01040	MBL	RA-226	0.013	0.041	0.080	NA	U	pCi/L	ARS-010/EPA 903	6/6/17 9:35	SC
ARS1-B17-01040	MBL	RA-228	-0.143	0.316	0.589	NA	U	pCi/L	ARS-010/EPA 904	5/30/17 14:45	SC

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-01040	LCSD	RA-226	30.504	4.906	29.843	4.808	N/A	pCi/L	ARS-010/EPA 903	6/6/17 9:35	SC	0.07	< 1
ARS1-B17-01040	LCSD	RA-228	39.143	6.485	38.135	6.316	N/A	pCi/L	ARS-010/EPA 904	5/30/17 14:45	SC	0.08	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-01040	LCSD	RA-226	30.504	4.906	29.843	4.808	N/A	pCi/L	ARS-010/EPA 903	6/6/17 9:35	SC	0.10	< 3
ARS1-B17-01040	LCSD	RA-228	39.143	6.485	38.135	6.316	N/A	pCi/L	ARS-010/EPA 904	5/30/17 14:45	SC	0.11	< 3

Matrix Spike

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery(%)	MS Acceptance Range
ARS1-B17-01040	MS	Ra-226	53.461	8.618	0.151	55.313	N/A	pCi/L	ARS-010/EPA 903	6/6/17 9:35	SC	97	60%-140%
ARS1-B17-01040	MSD	Ra-226	55.386	8.917	0.151	55.240	N/A	pCi/L	ARS-010/EPA 904	6/6/17 9:35	SC	100	60%-140%
ARS1-B17-01040	MS	Ra-228	38.798	6.505	1.053	52.653	N/A	pCi/L	ARS-010/EPA 903	5/30/17 14:45	SC	74	60%-140%
ARS1-B17-01040	MSD	Ra-228	44.076	7.343	1.350	52.498	N/A	pCi/L	ARS-010/EPA 904	5/30/17 14:45	SC	84	60%-140%

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

ARS INTERNATIONAL
2609 North River Road • Port Allen, Louisiana 70767
1 (800) 401-4277 • Fax (225) 381-2996

Notes (Case Narrative):

Comments:

1.0) All MDA/MDC values are calculated on a sample specific basis.
2.0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.
3.0) Data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.
4.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix. Modified analyses are indicated by the subsequent addition of "m" to the procedure number (i.e. 900.0M).
5.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than the actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
6.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228 (Gamma Spectroscopy only).
7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234 (Gamma Spectroscopy only).
8.0) All gamma spectroscopy was performed utilizing high purity germanium detectors (**HPGe**).
9.0) ARS makes every attempt to match sample density to calibrated density; however, in some cases, it is not practical or possible to do so and data results may be affected (Gamma Spectroscopy only).
10.0) Gamma spectroscopy results are calculated values based on the **ORTEC®** GammaVision ENV32 Analysis Engine.
11.0) ACLASS DOD and ISO 17025 certification applies only to the following analytes and methods: Gross Alpha and Gross Beta (EPA 900, SM7110B&C, SW846 9310); Radium 226 (EPA 903, EPA 903.1, SM 7500 Ra-B, SW846 9315); Radium 228 (EPA 904, SM 7500 Ra-B SW846 9320); Iodine-131(EPA 901.1); Uranium by ICPMS (EPA 200.8); Strontium 89/90 (EPA 905, Eichrom SRW01, HASL 300 Sr-03-RC); Tritium (EPA 906, EPA 906M); Gamma Emitters (EPA 901.1, SM7120B, HASL 300 Ga-01-R); Americium-241, Curium 242/244, Plutonium 239/240 and 241, Thorium 228/230/232, Uranium 234/233 and 238 (Eichrom ACW03 VBS); Lead 210 (HASL 300 Pb-01-RC, Eichrom OTW01); Polonium 210 (HASL 300 Po-01-RC, HASL 300 Po-02-RC); Technetium-99 (Eichrom TCW02, Eichrom TCS01M).

Method References:

1.0) **EPA 600/4-80-032**; Prescribed Procedures for the Measurements of Radioactivity in Drinking Water, August 1980.
2.0) **Standard Methods for the Examination of Water and Wastewater** (On-Line Edition)
3.0) **EPA SW-846**; Test Methods for Evaluating Solid Waste, (On-Line edition)
4.0) **EPA 600/4/79-020**; Methods for Chemical Analysis of Water and Waste, March 1983.
5.0) **HASL 300**; The Procedures Manual of the Environmental Measurements Laboratory, Volume I, 28th Edition February, 1997.

Definitions:

CRDL	Contract Required Detection Limit
CSU	Combined Standard Uncertainty
DLC	Decision Level Concentration (ANSI N42.23) or critical level
DO	Duplicate Original
DUP	Method Duplicate
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
MDA	Minimum Detectable Activity
MDC	(Minimum Detectable Concentration) minimum concentration of the analyte that ARS can detect utilizing the specific analysis
MBL	Method Blank
MS/MSD	Matrix Spike/Matrix Spike Duplicate
N/A	Not Applicable
NP	Not Provided
NR	Not Referenced
LOD	Limit of Detection
LOQ	Limit of Quantitation

Data Qualifiers:

B	The analyte is found in both the associated method blank and the sample. This flag indicates probable blank contamination.
D	Sample analysis accomplished through dilution.
J	The reported result is an estimated value above the limit of detection but outside of quantitation range (e.g., matrix interference was observed).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).
U	Activity is below the MDC, MDA, MDL, or LOD
N	The analyte is a tentatively identified compound using mass spectrometry or any non-customer requested compounds that are tentatively identified.
*	LCS/LCSD or MS/MSD fails RPD criteria.
S	Spike
SC	Subcontracted out to another qualified laboratory
H	Holding time exceeded

B - Environmental

Chain of Custody Record

Batch # 55103 | TEMP UN-C: 5.6 | Page ___ of ___
THERM ID# 3 | TEMP Corr: 5.4

Customer / Report Information
Name: Coleto Creek Power
Attention: Rick Coleman
Address:

Billing Information ☐ Check box if Billing is the same as Report Information
Address:
Attention: PO#:
Project:
Comments: CCR SAMPLING

Phone: 361-788-5145 FAX:
EMAIL: Richard.Coleman@dynegy.com

Requested Analysis: B Metals*; C Cl, F*, SO4; pH; A TDS; E Ra 226/228; D Alk: Tot Carb, Bi Carb; F Diss Li, Mo

Completed By Laboratory: Custody Seals Present Yes ☐ No ☐; Intact Yes ☐ No ☐

Sample Information
Collected By:

Client / Field Sample ID	Collected Date	Collected Time	C=Composite G=Grab	Matrix (DW - Drinking H20, S - Solid, WW - Waste H20, SL - Sludge, L - Liquid, W - Water)	Container Type	Number	Size	Preservative	Metals*	Cl, F*, SO4	pH	TDS	Ra 226/228	Alk: Tot Carb, Bi Carb	Diss Li, Mo	LAB Sample Number
MW-10	5-9-17	1540	G	W	P	6	1L / 500 / 250	ICE, HNO3	X	X	X	X	X	X	X	S171301614
MW-10A	5-9-17	1612						ICE, HNO3								S171301619
MW-9	5-10-17	818						ICE, HNO3								S171301620
MW-9A	5-10-17	858						ICE, HNO3								S171301621
MS \ 9A	5-10-17	858						ICE, HNO3								
MSD \ 9A	5-10-17	858						ICE, HNO3								
MW-5	5-10-17	1112						ICE, HNO3								S171301622

Required Turnaround: ☒ Routine (6-10 Business Days) Expedite / Rush: ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business Days ☒ 5 Business Days ☐ Other ______ REMARKS:

Surcharge will apply to RUSH TAT Authorized By: | Container Type: P=Plastic, G=Glass, V=VOA, O=Other | Carrier ID :

Relinquished By:	Date:	Time:	Received By:	Date:	Time:
[signature]	5-10-17	1535	[signature]	5-10-17	15:35

Fluoride: 0.25 mg/L; Metals*: B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, Mg, K, Na, & Hg

B - Environmental

Chain of Custody Recor

Batch # 55103 | TEMP UN-C: 5.6 | TEMP Corr: 5.4 | THERM ID# 3 | Page ___ of ___

Customer / Report Information		Billing Information (☒ Check box if Billing is the same as Report Information)			
Name:	Coleto Creek Power	Address:		Phone:	3647885145
Attention:	Rick Coleman	Attention:	PO#:	FAX:	
Address:		Project: Comments:	CCR SAMPLING	EMAIL:	Richard.coleman@dynegy.com

Collected By:

Client / Field Sample ID	Date Collected	Time Collected	G=Grab C=Composite	Matrix	Container TYPE	NUMBER	SIZE	Preservative	Metals*	Cl, F,* SO4	PH	TDS	Ra 226/228	Alk: Tot Carb Bicarb	Dks Li:Mo	LAB Sample Number
PS-3	5-10-17	1357	G	W	P	6	1L/500/250	☒ ICE, ☒ HNO3	X	X	X	X	X	X	X	S171301623
MW-11	5-10-17	1325	G	W	P	6	1L/500/250	☒ ICE, ☒ HNO3	X	X	X	X	X	X	X	S171301625
Dup	5-10-17		G	W	P	6	1L/500/250	☒ ICE, ☒ HNO3	X	X	X	X	X	X	X	S171301626
								☒ ICE, ☒ HNO3								
								☒ ICE, ☒ HNO3								
								☒ ICE, ☒ HNO3								
								☒ ICE, ☒ HNO3								

Matrix: DW - Drinking H20, S - Solid, WW - Waste H20, SL - Sludge, L - Liquid, W - Water

Preservative options: H2SO4, H3PO4, ICE, ___, HNO3, NaOH, HCL, Na2SO3

Custody Seals Present: Yes ☐ No ☐ — Intact: Yes ☐ No ☐

Required Turnaround: ~~Routine (6-10 Business Days)~~ / Expedite / Rush: ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business Days ☒ 5 Business Days ☐ Other ______ REMARKS:

Surcharge will apply to RUSH TAT Authorized By:

Container Type: P=Plastic, G=Glass, V=VOA, O=Other | Carrier ID :

Relinquished By:	Date:	Time:	Received By:	Date:	Time:
[signature]	5-10-17	1535	[signature]	5-10-17	15:35

1606 E Brazos Suite D, Victoria, Texas 77901 Ph. (361) 572-8224 Fax (361) 572-4115 Toll Free 1-800-460-8223 Form #1000.0-2 REV 1.2 Email: kbenviro@suddenlinkmail.com www.benvironmental.net

Fluoride: 0.25 mg/L; Metals*: B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, Mg, K, Na, & Hg

BatchNo: 55171

SAMPLE REPORT

T104704328-17-14

Business

Coleto Creek Power - R Coleman
PO Box 8
Fannin TX 77960
Att: Rick Coleman

Laboratory

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901
ph. 361-572-8224

Reference Information

Project: CCR Sampling

Printed: Tuesday, June 13, 2017

Re: Coleto Creek Power - R Coleman

Dear: Rick Coleman

Attached are the results for sample(s) received on 5/11/2017

The analytical results relate only to the samples tested.
All supporting quality data meets the requirements of NELAC unless noted in the case narrative section of the report.

This report contains 36 pages (including the cover page)

If you have any questions concerning this report, please do not hesitate to call (361) 572-8224 or Fax us at (361) 572-4115

Respectfully Submitted,

Kevin Baros

Laboratory Director

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55171

Batch No: 55171

Sample Receipt Checklist

Date Received: 5/11/2017

Project	CCR Sampling	Received By:	Woodruff

Login completed by: Woodruff (Signature) 5/11/2017 (LoginDate:)

Carrier Name: Walk In

Shipping container/cooler in good condition?	☑ YES	☐ NO	☐ Not Present	
Custody seals intact on shipping container/cooler?	☐ YES	☐ NO	☑ Not Present	
Custody seals intact on sample bottles?	☐ YES	☐ NO	☑ Not Present	
Chain of Custody present?	☑ YES	☐ NO		
Chain of Custody signed when relinquished and received	☑ YES	☐ NO		
Chain of Custody agrees with sample labels?	☑ YES	☐ NO		
Samples in proper container/bottles?	☑ YES	☐ NO		
Sample containers intact?	☑ YES	☐ NO		
Sufficient sample volume for indicated tests?	☑ YES	☐ NO		
All samples received within holding times?	☑ YES	☐ NO		
Container/Temp Blank - temperature in compliance?	☑ YES	☐ NO	>0 <6 °C On Ice	
Water - VOA vials have zero headspace? Bubble < 6mm?	☐ YES	☐ NO	☑ No VOA Vials submitted	
Water - pH acceptable upon receipt?	☑ YES	☐ NO	☐ Not Applicable	

*TEMP 7.4/7.2 | pH Adjusted? No | Checked By L. Vahrenkamp

Any No and/or N/A (not applicable) response must be detailed in the comments section below.

Client contacted		PersonContacted	
Contacted by:		Date Contacted:	

Regarding:

Comments:

Therm. #3. HNO3 Lot# 2-42-12. The samples were received the same day they were collected and were in the process of cooling.

Corrective Action:

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55171

Sample Report Information

Sample ID:	S171311605	Client ID:	BV-10	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV-10
Notes:

Batch No: 55171
Sampled: 5/11/2017 8:43 AM

Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	85	mg/L	EPA 300	K Baros	5/12/2017 17:32	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	290	mg/L	SM 2320 B		5/15/2017 13:26	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/15/2017 13:26	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	290	mg/L	SM 2320 B		5/15/2017 13:26	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.82	mg/L	EPA 300	K Baros	5/12/2017 17:32	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.46	SU	SM 4500-H+B	C Watts	5/11/2017 17:00					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	666	mg/L	SM2540C	C Watts	5/17/2017 13:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	c	#			5/15/2017 14:15					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	79	mg/L	EPA 300	K Baros	5/12/2017 17:32	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	c	#			6/1/2017 7:39					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55171

Sample Report Information

Sample ID:	S171311608	Client ID:	BV-1	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV-1
Notes:

Batch No: 55171
Sampled: 5/11/2017 10:40 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	144	mg/L	EPA 300	K Baros	5/12/2017 17:32	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	392	mg/L	SM 2320 B		5/15/2017 13:40	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/15/2017 13:40	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	392	mg/L	SM 2320 B		5/15/2017 13:40	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.73	mg/L	EPA 300	K Baros	5/12/2017 17:32	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.11	SU	SM 4500-H+B	C Watts	5/11/2017 17:00					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	960	mg/L	SM2540C	C Watts	5/18/2017 16:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	c	#			5/15/2017 14:17					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	185	mg/L	EPA 300	K Baros	5/12/2017 17:32	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	c	#			6/1/2017 7:39					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55171

Sample Report Information

Sample ID:	S171311609	Client ID:	BV-5	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV-5
Notes:

Batch No: 55171
Sampled: 5/11/2017 11:30 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	106	mg/L	EPA 300	K Baros	5/12/2017 17:32	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	348	mg/L	SM 2320 B		5/15/2017 13:53	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/15/2017 13:53	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	348	mg/L	SM 2320 B		5/15/2017 13:53	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.57	mg/L	EPA 300	K Baros	5/12/2017 17:32	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	6.99	SU	SM 4500-H+B	C Watts	5/11/2017 17:00					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	862	mg/L	SM2540C	C Watts	5/17/2017 13:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			5/15/2017 14:20					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	148	mg/L	EPA 300	K Baros	5/12/2017 17:32	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			6/1/2017 7:39					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55171

Sample Report Information

Sample ID:	S171311610	Client ID:	BV-19	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV-19
Notes:

Batch No: 55171
Sampled: 5/11/2017 10:01 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	116	mg/L	EPA 300	K Baros	5/12/2017 17:32	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	316	mg/L	SM 2320 B		5/15/2017 14:06	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/15/2017 14:06	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	316	mg/L	SM 2320 B		5/15/2017 14:06	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.51	mg/L	EPA 300	K Baros	5/12/2017 17:32	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	6.93	SU	SM 4500-H+B	C Watts	5/11/2017 17:00					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	636	mg/L	SM2540C	C Watts	5/18/2017 16:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			5/15/2017 14:22					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	57	mg/L	EPA 300	K Baros	5/12/2017 17:32	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			6/1/2017 7:39					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55171

Sample Report Information

Sample ID:	S171311611	Client ID:	MW-6	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #6
Notes:

Batch No: 55171
Sampled: 5/11/2017 1:10 PM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	70	mg/L	EPA 300	K Baros	5/12/2017 17:32	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	164	mg/L	SM 2320 B		5/15/2017 14:12	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/15/2017 14:12	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	164	mg/L	SM 2320 B		5/15/2017 14:12	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.37	mg/L	EPA 300	K Baros	5/12/2017 17:32	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.25	SU	SM 4500-H+B	C Watts	5/11/2017 17:00					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	490	mg/L	SM2540C	C Watts	5/18/2017 16:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			5/15/2017 14:24					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	110	mg/L	EPA 300	K Baros	5/12/2017 17:32	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			6/1/2017 7:39					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55171

Sample Report Information

Sample ID:	S171311612	Client ID:	MW-7	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #7
Notes:

Batch No: 55171
Sampled: 5/11/2017 1:40 PM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	91	mg/L	EPA 300	K Baros	5/12/2017 17:32	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	247	mg/L	SM 2320 B		5/15/2017 14:26	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/15/2017 14:26	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	247	mg/L	SM 2320 B		5/15/2017 14:26	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.6	mg/L	EPA 300	K Baros	5/12/2017 17:32	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.17	SU	SM 4500-H+B	C Watts	5/11/2017 17:00					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	586	mg/L	SM2540C	C Watts	5/17/2017 13:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			5/15/2017 14:11					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	74	mg/L	EPA 300	K Baros	5/12/2017 17:32	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			6/1/2017 7:39					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55171

QA Summary Report

Parameter	ID	Result	Ref Value	Amt Added	LOQ	Qualifer	Control	Flag	Comments
.Method Blank									
.- Chloride, IC	Q171431718	<1mg/L	0		1		1		Blank Acceptable.
5/12/2017 11:19									
Fluoride, IC	Q171431718	<0.25mg/L	0		0.25		0.25		Blank Acceptable.
5/12/2017 11:19									
Solids, Total Dissolved	Q171381221	<25mg/L	0		10		25		Blank Acceptable.
5/17/2017 13:30									
Sulfate, IC	Q171431718	<1mg/L	0		1		1		Blank Acceptable.
5/12/2017 11:19									
Duplicate									
pH (Standard Units)	Q171311719	7.18SU	7.17		2	0.1%	20		Duplicate RPD Acceptable.
5/11/2017 17:00									
Solids, Total Dissolved	Q171381222	592mg/L	586		10	1.0%	20		Duplicate RPD Acceptable.
5/17/2017 13:30									
Laboratory Control Standard									
.- Chloride, IC	Q171431802	25.7mg/L	25		1	102.8%	80 - 120		Standard Recovery Acceptable.
5/12/2017 11:57						2.8%	20		Standard RPD Acceptable.
Fluoride, IC	Q171431802	2.05mg/L	2		0.25	102.5%	80 - 120		Standard Recovery Acceptable.
5/12/2017 11:57						2.5%	20		Standard RPD Acceptable.
pH (Standard Units)	Q171311718	7.03SU	7		2	100.4%	80 - 120		Standard Recovery Acceptable.
5/11/2017 17:00						0.4%	20		Standard RPD Acceptable.
Sulfate, IC	Q171431802	26.2mg/L	25		1	104.8%	80 - 120		Standard Recovery Acceptable.
5/12/2017 11:57						4.7%	20		Standard RPD Acceptable.
Matrix Spike									
.- Chloride, IC	Q17143180A	107mg/L	107.3	25	1	98.8%	80 - 120		Spike Recovery Acceptable.
5/12/2017 22:37						0.3%	20		Spike RPD Acceptable.
Fluoride, IC	Q17143180A	2.4mg/L	2.53	2	0.25	93.5%	80 - 120		Spike Recovery Acceptable.
5/12/2017 22:37						5.3%	20		Spike RPD Acceptable.
Sulfate, IC	Q17143180A	92.1mg/L	91.9	25	1	100.8%	70 - 130		Spike Recovery Acceptable.
5/12/2017 22:37						0.2%	20		Spike RPD Acceptable.
Matrix Spike Dup									
.- Chloride, IC	Q17143180B	107mg/L	107.3	25	1	98.8%	80 - 120		Spike Recovery Acceptable.
5/12/2017 23:15						0.3%	20		Spike RPD Acceptable.
Fluoride, IC	Q17143180B	2.4mg/L	2.53	2	0.25	93.5%	80 - 120		Spike Recovery Acceptable.
5/12/2017 23:15						5.3%	20		Spike RPD Acceptable.
Sulfate, IC	Q17143180B	91.6mg/L	91.9	25	1	98.8%	70 - 130		Spike Recovery Acceptable.
5/12/2017 23:15						0.3%	20		Spike RPD Acceptable.

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55171

Flag and Qualifier Legend

Negative - Result Detected	***MDL = Method Detection Limit***	***DF = Dilution Factor***
Caution - Problem Detected	*LOQ = Limit of Quantitation*	***j = Analyte detected between MDL and LOQ***
Warning - Null Value	***S = surrogate standard out of limit***	***H = sample out of hold time***

MS, MSD, RPD- Failure may occur due to matrix interference, data released per QA plan

Tuesday, June 13, 2017 **B Environmental - LDMS QA Report Summary**

Note: THANK YOU!

DHL Analytical, Inc. **Date:** *18-May-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Lab Order: 1705121

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition and Standard Methods.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives except where noted in the following. For Total Metals Analysis, the recoveries of up to two analytes for the Matrix Spike and Matrix Spike Duplicate (1705121-06 MS/MSD) were outside of the method control limits. These are flagged accordingly in the QC Summary Report. These analytes were within method control limits in the associated LCS. No further corrective action was taken.

For Total Metals Analysis, the recovery of Boron for the Post Digestion Spike (1705121-06 PDS) was slightly below the method control limits. This is flagged accordingly in the QC Summary Report. This analyte was within method control limits in the associated Serial Dilution. No further corrective action was taken.

The Total and Dissolved Metals Analysis, the results Dissolved Lithium/Molybdenum for six samples were slightly higher than the results of Total Lithium/Molybdenum. The results were within acceptable analytical variation limits. No further corrective action was taken.

DHL Analytical, Inc.

Date: *18-May-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR Sampling (55171)
Lab Order: 1705121

Client Sample ID: BV-10
Lab ID: 1705121-01
Alternate ID: S171311605
Collection Date: 05/11/17 08:43 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.0112	0.00500	0.0100		mg/L	1	05/17/17 03:41 PM
Dissolved Molybdenum	0.00831	0.00200	0.00500		mg/L	1	05/17/17 03:41 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **CVD**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/15/17 02:15 PM
Arsenic	0.0122	0.00200	0.00500		mg/L	1	05/15/17 02:15 PM
Barium	0.0464	0.00300	0.0100		mg/L	1	05/15/17 02:15 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/15/17 02:15 PM
Boron	1.07	0.0100	0.0300		mg/L	1	05/15/17 02:15 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/15/17 02:15 PM
Calcium	39.4	1.00	3.00		mg/L	10	05/16/17 12:44 PM
Chromium	0.00424	0.00200	0.00500	J	mg/L	1	05/15/17 02:15 PM
Cobalt	0.204	0.00300	0.00500		mg/L	1	05/15/17 02:15 PM
Lead	0.00416	0.000300	0.00100		mg/L	1	05/15/17 02:15 PM
Lithium	0.0118	0.00500	0.0100		mg/L	1	05/15/17 02:15 PM
Magnesium	7.04	0.100	0.300		mg/L	1	05/15/17 02:15 PM
Molybdenum	0.00783	0.00200	0.00500		mg/L	1	05/15/17 02:15 PM
Potassium	0.714	0.100	0.300		mg/L	1	05/15/17 02:15 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/15/17 02:15 PM
Sodium	174	1.00	3.00		mg/L	10	05/16/17 12:44 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/15/17 02:15 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/17/17 12:42 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	290	10.0	20.0		mg/L @ pH 4.53	1	05/15/17 01:26 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	05/15/17 01:26 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	05/15/17 01:26 PM
Alkalinity, Total (As CaCO3)	290	20.0	20.0		mg/L @ pH 4.53	1	05/15/17 01:26 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *18-May-17*

CLIENT:	B-Environmental	**Client Sample ID:**	BV-1
Project:	Coleto Creek Power	**Lab ID:**	1705121-02
Project No:	CCR Sampling (55171)	**Alternate ID:**	S171311608
Lab Order:	1705121	**Collection Date:**	05/11/17 10:40 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.0156	0.00500	0.0100		mg/L	1	05/17/17 03:43 PM
Dissolved Molybdenum	0.00456	0.00200	0.00500	J	mg/L	1	05/17/17 03:43 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **CVD**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/15/17 02:17 PM
Arsenic	0.00978	0.00200	0.00500		mg/L	1	05/15/17 02:17 PM
Barium	0.0446	0.00300	0.0100		mg/L	1	05/15/17 02:17 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/15/17 02:17 PM
Boron	1.23	0.0100	0.0300		mg/L	1	05/15/17 02:17 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/15/17 02:17 PM
Calcium	68.9	1.00	3.00		mg/L	10	05/16/17 12:46 PM
Chromium	0.00885	0.00200	0.00500		mg/L	1	05/15/17 02:17 PM
Cobalt	0.392	0.00300	0.00500		mg/L	1	05/15/17 02:17 PM
Lead	0.00576	0.000300	0.00100		mg/L	1	05/15/17 02:17 PM
Lithium	0.0155	0.00500	0.0100		mg/L	1	05/15/17 02:17 PM
Magnesium	11.1	0.100	0.300		mg/L	1	05/15/17 02:17 PM
Molybdenum	0.00419	0.00200	0.00500	J	mg/L	1	05/15/17 02:17 PM
Potassium	0.524	0.100	0.300		mg/L	1	05/15/17 02:17 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/15/17 02:17 PM
Sodium	267	1.00	3.00		mg/L	10	05/16/17 12:46 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/15/17 02:17 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/17/17 12:44 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	392	10.0	20.0		mg/L @ pH 4.54	1	05/15/17 01:40 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.54	1	05/15/17 01:40 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.54	1	05/15/17 01:40 PM
Alkalinity, Total (As CaCO3)	392	20.0	20.0		mg/L @ pH 4.54	1	05/15/17 01:40 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *18-May-17*

CLIENT:	B-Environmental	**Client Sample ID:**	BV-5
Project:	Coleto Creek Power	**Lab ID:**	1705121-03
Project No:	CCR Sampling (55171)	**Alternate ID:**	S171311609
Lab Order:	1705121	**Collection Date:**	05/11/17 11:30 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.0183	0.00500	0.0100		mg/L	1	05/17/17 03:45 PM
Dissolved Molybdenum	0.0105	0.00200	0.00500		mg/L	1	05/17/17 03:45 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **CVD**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/15/17 02:20 PM
Arsenic	0.00786	0.00200	0.00500		mg/L	1	05/15/17 02:20 PM
Barium	0.0368	0.00300	0.0100		mg/L	1	05/15/17 02:20 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/15/17 02:20 PM
Boron	1.03	0.0100	0.0300		mg/L	1	05/15/17 02:20 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/15/17 02:20 PM
Calcium	81.6	1.00	3.00		mg/L	10	05/16/17 12:47 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	05/15/17 02:20 PM
Cobalt	0.0462	0.00300	0.00500		mg/L	1	05/15/17 02:20 PM
Lead	0.000566	0.000300	0.00100	J	mg/L	1	05/15/17 02:20 PM
Lithium	0.0180	0.00500	0.0100		mg/L	1	05/15/17 02:20 PM
Magnesium	16.3	0.100	0.300		mg/L	1	05/15/17 02:20 PM
Molybdenum	0.0101	0.00200	0.00500		mg/L	1	05/15/17 02:20 PM
Potassium	0.172	0.100	0.300	J	mg/L	1	05/15/17 02:20 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/15/17 02:20 PM
Sodium	170	1.00	3.00		mg/L	10	05/16/17 12:47 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/15/17 02:20 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/17/17 12:46 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	348	10.0	20.0		mg/L @ pH 4.53	1	05/15/17 01:53 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	05/15/17 01:53 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	05/15/17 01:53 PM
Alkalinity, Total (As CaCO3)	348	20.0	20.0		mg/L @ pH 4.53	1	05/15/17 01:53 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *18-May-17*

CLIENT:	B-Environmental	**Client Sample ID:**	BV-19
Project:	Coleto Creek Power	**Lab ID:**	1705121-04
Project No:	CCR Sampling (55171)	**Alternate ID:**	S171311610
Lab Order:	1705121	**Collection Date:**	05/11/17 10:01 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.0136	0.00500	0.0100		mg/L	1	05/17/17 03:47 PM
Dissolved Molybdenum	0.00515	0.00200	0.00500		mg/L	1	05/17/17 03:47 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **CVD**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/15/17 02:22 PM
Arsenic	0.00769	0.00200	0.00500		mg/L	1	05/15/17 02:22 PM
Barium	0.0835	0.00300	0.0100		mg/L	1	05/15/17 02:22 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/15/17 02:22 PM
Boron	0.778	0.0100	0.0300		mg/L	1	05/15/17 02:22 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/15/17 02:22 PM
Calcium	95.0	1.00	3.00		mg/L	10	05/16/17 12:49 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	05/15/17 02:22 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	05/15/17 02:22 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	05/15/17 02:22 PM
Lithium	0.0148	0.00500	0.0100		mg/L	1	05/15/17 02:22 PM
Magnesium	22.1	0.100	0.300		mg/L	1	05/15/17 02:22 PM
Molybdenum	0.00474	0.00200	0.00500	J	mg/L	1	05/15/17 02:22 PM
Potassium	0.603	0.100	0.300		mg/L	1	05/15/17 02:22 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/15/17 02:22 PM
Sodium	87.5	1.00	3.00		mg/L	10	05/16/17 12:49 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/15/17 02:22 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/17/17 12:48 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	316	10.0	20.0		mg/L @ pH 4.53	1	05/15/17 02:06 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	05/15/17 02:06 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	05/15/17 02:06 PM
Alkalinity, Total (As CaCO3)	316	20.0	20.0		mg/L @ pH 4.53	1	05/15/17 02:06 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *18-May-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR Sampling (55171)
Lab Order: 1705121

Client Sample ID: MW-6
Lab ID: 1705121-05
Alternate ID: S171311611
Collection Date: 05/11/17 01:10 PM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.00992	0.00500	0.0100	J	mg/L	1	05/17/17 04:03 PM
Dissolved Molybdenum	0.0191	0.00200	0.00500		mg/L	1	05/17/17 04:03 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **CVD**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/15/17 02:24 PM
Arsenic	0.00738	0.00200	0.00500		mg/L	1	05/15/17 02:24 PM
Barium	0.0758	0.00300	0.0100		mg/L	1	05/15/17 02:24 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/15/17 02:24 PM
Boron	1.94	0.0100	0.0300		mg/L	1	05/15/17 02:24 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/15/17 02:24 PM
Calcium	70.6	1.00	3.00		mg/L	10	05/16/17 01:14 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	05/15/17 02:24 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	05/15/17 02:24 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	05/15/17 02:24 PM
Lithium	0.0101	0.00500	0.0100		mg/L	1	05/15/17 02:24 PM
Magnesium	8.74	0.100	0.300		mg/L	1	05/15/17 02:24 PM
Molybdenum	0.0176	0.00200	0.00500		mg/L	1	05/15/17 02:24 PM
Potassium	0.794	0.100	0.300		mg/L	1	05/15/17 02:24 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/15/17 02:24 PM
Sodium	73.6	1.00	3.00		mg/L	10	05/16/17 01:14 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/15/17 02:24 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/17/17 12:55 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	164	10.0	20.0		mg/L @ pH 4.51	1	05/15/17 02:12 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	05/15/17 02:12 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	05/15/17 02:12 PM
Alkalinity, Total (As CaCO3)	164	20.0	20.0		mg/L @ pH 4.51	1	05/15/17 02:12 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *18-May-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR Sampling (55171)
Lab Order: 1705121

Client Sample ID: MW-7
Lab ID: 1705121-06
Alternate ID: S171311612
Collection Date: 05/11/17 01:40 PM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.0103	0.00500	0.0100		mg/L	1	05/17/17 03:27 PM
Dissolved Molybdenum	0.0103	0.00200	0.00500		mg/L	1	05/17/17 03:27 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **CVD**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/15/17 02:11 PM
Arsenic	0.00908	0.00200	0.00500		mg/L	1	05/15/17 02:11 PM
Barium	0.0880	0.00300	0.0100		mg/L	1	05/15/17 02:11 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/15/17 02:11 PM
Boron	0.867	0.0100	0.0300		mg/L	1	05/15/17 02:11 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/15/17 02:11 PM
Calcium	66.5	1.00	3.00		mg/L	10	05/16/17 12:32 PM
Chromium	0.00443	0.00200	0.00500	J	mg/L	1	05/15/17 02:11 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	05/15/17 02:11 PM
Lead	0.000664	0.000300	0.00100	J	mg/L	1	05/15/17 02:11 PM
Lithium	0.00960	0.00500	0.0100	J	mg/L	1	05/15/17 02:11 PM
Magnesium	9.83	0.100	0.300		mg/L	1	05/15/17 02:11 PM
Molybdenum	0.00960	0.00200	0.00500		mg/L	1	05/15/17 02:11 PM
Potassium	1.19	0.100	0.300		mg/L	1	05/15/17 02:11 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/15/17 02:11 PM
Sodium	113	1.00	3.00		mg/L	10	05/16/17 12:32 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/15/17 02:11 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/17/17 12:58 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	247	10.0	20.0		mg/L @ pH 4.52	1	05/15/17 02:26 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	05/15/17 02:26 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	05/15/17 02:26 PM
Alkalinity, Total (As CaCO3)	247	20.0	20.0		mg/L @ pH 4.52	1	05/15/17 02:26 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc. **Date:** *18-May-17*

CLIENT: B-Environmental
Work Order: 1705121
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_170517A

The QC data in batch 80441 applies to the following samples: 1705121-01A, 1705121-02A, 1705121-03A, 1705121-04A, 1705121-05A, 1705121-06A

Sample ID **MB-80441** Batch ID: **80441** TestNo: **SW7470A** Units: **mg/L**
SampType: **MBLK** Run ID: **CETAC2_HG_170517A** Analysis Date: **5/17/2017 12:21:45 PM** Prep Date: **5/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.0000800	0.000200								

Sample ID **LCS-80441** Batch ID: **80441** TestNo: **SW7470A** Units: **mg/L**
SampType: **LCS** Run ID: **CETAC2_HG_170517A** Analysis Date: **5/17/2017 12:24:01 PM** Prep Date: **5/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00188	0.000200	0.00200	0	94.0	85	115			

Sample ID **LCSD-80441** Batch ID: **80441** TestNo: **SW7470A** Units: **mg/L**
SampType: **LCSD** Run ID: **CETAC2_HG_170517A** Analysis Date: **5/17/2017 12:26:17 PM** Prep Date: **5/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00185	0.000200	0.00200	0	92.5	85	115	1.61	15	

Sample ID **1705121-06A SD** Batch ID: **80441** TestNo: **SW7470A** Units: **mg/L**
SampType: **SD** Run ID: **CETAC2_HG_170517A** Analysis Date: **5/17/2017 1:00:20 PM** Prep Date: **5/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.000400	0.00100	0	0				0	10	

Sample ID **1705121-06A PDS** Batch ID: **80441** TestNo: **SW7470A** Units: **mg/L**
SampType: **PDS** Run ID: **CETAC2_HG_170517A** Analysis Date: **5/17/2017 1:02:36 PM** Prep Date: **5/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00245	0.000200	0.00250	0	98.0	85	115			

Sample ID **1705121-06A MS** Batch ID: **80441** TestNo: **SW7470A** Units: **mg/L**
SampType: **MS** Run ID: **CETAC2_HG_170517A** Analysis Date: **5/17/2017 1:04:52 PM** Prep Date: **5/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00190	0.000200	0.00200	0	95.0	80	120			

Sample ID **1705121-06A MSD** Batch ID: **80441** TestNo: **SW7470A** Units: **mg/L**
SampType: **MSD** Run ID: **CETAC2_HG_170517A** Analysis Date: **5/17/2017 1:07:08 PM** Prep Date: **5/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00191	0.000200	0.00200	0	95.5	80	120	0.525	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705121
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170517A

The QC data in batch 80456 applies to the following samples: 1705121-01B, 1705121-02B, 1705121-03B, 1705121-04B, 1705121-05B, 1705121-06B

Sample ID **MB-80428-FILTER** Batch ID: **80456** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS4_170517A** Analysis Date: **5/17/2017 3:17:00 PM** Prep Date: **5/15/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.00500	0.0100								
Molybdenum	<0.00200	0.00500								

Sample ID **MB-80456** Batch ID: **80456** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS4_170517A** Analysis Date: **5/17/2017 3:19:00 PM** Prep Date: **5/15/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.00500	0.0100								
Molybdenum	<0.00200	0.00500								

Sample ID **LCS-80456** Batch ID: **80456** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS4_170517A** Analysis Date: **5/17/2017 3:21:00 PM** Prep Date: **5/15/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.206	0.0100	0.200	0	103	80	120			
Molybdenum	0.197	0.00500	0.200	0	98.5	80	120			

Sample ID **LCSD-80456** Batch ID: **80456** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS4_170517A** Analysis Date: **5/17/2017 3:23:00 PM** Prep Date: **5/15/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.201	0.0100	0.200	0	100	80	120	2.53	15	
Molybdenum	0.197	0.00500	0.200	0	98.6	80	120	0.123	15	

Sample ID **1705121-06B SD** Batch ID: **80456** TestNo: **SW6020A** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS4_170517A** Analysis Date: **5/17/2017 3:29:00 PM** Prep Date: **5/15/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.0250	0.0500	0	0.0103				0	10	
Molybdenum	0.0102	0.0250	0	0.0103				0.950	10	

Sample ID **1705121-06B PDS** Batch ID: **80456** TestNo: **SW6020A** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS4_170517A** Analysis Date: **5/17/2017 3:49:00 PM** Prep Date: **5/15/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.196	0.0100	0.200	0.0103	92.6	80	120			
Molybdenum	0.200	0.00500	0.200	0.0103	95.0	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705121
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170517A

Sample ID **1705121-06B MS**	Batch ID: **80456**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **MS**	Run ID: **ICP-MS4_170517A**	Analysis Date: **5/17/2017 3:51:00 PM**	Prep Date: **5/15/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Lithium	0.207	0.0100	0.200	0.0103	98.4	80	120			
Dissolved Molybdenum	0.216	0.00500	0.200	0.0103	103	80	120			

Sample ID **1705121-06B MSD**	Batch ID: **80456**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **MSD**	Run ID: **ICP-MS4_170517A**	Analysis Date: **5/17/2017 3:53:00 PM**	Prep Date: **5/15/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Lithium	0.208	0.0100	0.200	0.0103	98.8	80	120	0.348	15	
Dissolved Molybdenum	0.213	0.00500	0.200	0.0103	102	80	120	1.27	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705121
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170515B

The QC data in batch 80436 applies to the following samples: 1705121-01A, 1705121-02A, 1705121-03A, 1705121-04A, 1705121-05A, 1705121-06A

Sample ID **MB-80436** Batch ID: **80436** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS5_170515B** Analysis Date: **5/15/2017 2:04:00 PM** Prep Date: **5/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.000800	0.00250								
Arsenic	<0.00200	0.00500								
Barium	<0.00300	0.0100								
Beryllium	<0.000300	0.00100								
Boron	<0.0100	0.0300								
Cadmium	<0.000300	0.00100								
Calcium	<0.100	0.300								
Chromium	<0.00200	0.00500								
Cobalt	<0.00300	0.00500								
Lead	<0.000300	0.00100								
Lithium	<0.00500	0.0100								
Magnesium	<0.100	0.300								
Molybdenum	<0.00200	0.00500								
Potassium	<0.100	0.300								
Selenium	<0.00200	0.00500								
Sodium	<0.100	0.300								
Thallium	<0.000500	0.00150								

Sample ID **LCS-80436** Batch ID: **80436** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS5_170515B** Analysis Date: **5/15/2017 2:06:00 PM** Prep Date: **5/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.184	0.00250	0.200	0	92.2	80	120			
Arsenic	0.191	0.00500	0.200	0	95.4	80	120			
Barium	0.187	0.0100	0.200	0	93.5	80	120			
Beryllium	0.188	0.00100	0.200	0	94.2	80	120			
Boron	0.180	0.0300	0.200	0	90.2	80	120			
Cadmium	0.182	0.00100	0.200	0	91.1	80	120			
Calcium	4.77	0.300	5.00	0	95.5	80	120			
Chromium	0.190	0.00500	0.200	0	94.9	80	120			
Cobalt	0.197	0.00500	0.200	0	98.3	80	120			
Lead	0.189	0.00100	0.200	0	94.3	80	120			
Lithium	0.188	0.0100	0.200	0	94.0	80	120			
Magnesium	4.83	0.300	5.00	0	96.7	80	120			
Molybdenum	0.187	0.00500	0.200	0	93.7	80	120			
Potassium	4.77	0.300	5.00	0	95.5	80	120			
Selenium	0.192	0.00500	0.200	0	95.9	80	120			
Sodium	4.89	0.300	5.00	0	97.8	80	120			
Thallium	0.191	0.00150	0.200	0	95.6	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705121
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170515B

Sample ID	LCSD-80436	Batch ID:	80436	TestNo:	SW6020A	Units:	mg/L
SampType:	LCSD	Run ID:	ICP-MS5_170515B	Analysis Date:	5/15/2017 2:08:00 PM	Prep Date:	5/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.185	0.00250	0.200	0	92.3	80	120	0.147	15	
Arsenic	0.188	0.00500	0.200	0	94.2	80	120	1.34	15	
Barium	0.186	0.0100	0.200	0	93.0	80	120	0.515	15	
Beryllium	0.189	0.00100	0.200	0	94.3	80	120	0.116	15	
Boron	0.189	0.0300	0.200	0	94.6	80	120	4.75	15	
Cadmium	0.182	0.00100	0.200	0	91.1	80	120	0.088	15	
Calcium	4.69	0.300	5.00	0	93.8	80	120	1.82	15	
Chromium	0.188	0.00500	0.200	0	94.1	80	120	0.865	15	
Cobalt	0.195	0.00500	0.200	0	97.3	80	120	0.973	15	
Lead	0.187	0.00100	0.200	0	93.7	80	120	0.721	15	
Lithium	0.188	0.0100	0.200	0	93.8	80	120	0.211	15	
Magnesium	4.80	0.300	5.00	0	96.1	80	120	0.613	15	
Molybdenum	0.187	0.00500	0.200	0	93.5	80	120	0.134	15	
Potassium	4.68	0.300	5.00	0	93.5	80	120	2.05	15	
Selenium	0.189	0.00500	0.200	0	94.5	80	120	1.47	15	
Sodium	4.85	0.300	5.00	0	96.9	80	120	0.901	15	
Thallium	0.190	0.00150	0.200	0	94.9	80	120	0.748	15	

Sample ID	1705121-06A SD	Batch ID:	80436	TestNo:	SW6020A	Units:	mg/L
SampType:	SD	Run ID:	ICP-MS5_170515B	Analysis Date:	5/15/2017 2:13:00 PM	Prep Date:	5/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.00400	0.0125	0	0				0	10	
Arsenic	<0.0100	0.0250	0	0.00908				0	10	
Barium	0.0867	0.0500	0	0.0880				1.52	10	
Beryllium	<0.00150	0.00500	0	0				0	10	
Boron	0.917	0.150	0	0.867				5.61	10	
Cadmium	<0.00150	0.00500	0	0				0	10	
Chromium	<0.0100	0.0250	0	0.00443				0	10	
Cobalt	<0.0150	0.0250	0	0				0	10	
Lead	<0.00150	0.00500	0	0.000664				0	10	
Lithium	<0.0250	0.0500	0	0.00960				0	10	
Magnesium	9.61	1.50	0	9.83				2.29	10	
Molybdenum	<0.0100	0.0250	0	0.00960				0	10	
Potassium	1.13	1.50	0	1.19				5.11	10	
Selenium	<0.0100	0.0250	0	0				0	10	
Thallium	<0.00250	0.00750	0	0				0	10	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705121
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170515B

Sample ID **1705121-06A PDS** Batch ID: **80436** TestNo: **SW6020A** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS5_170515B** Analysis Date: **5/15/2017 2:36:00 PM** Prep Date: **5/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.188	0.00250	0.200	0	94.2	80	120			
Arsenic	0.195	0.00500	0.200	0.00908	92.9	80	120			
Barium	0.271	0.0100	0.200	0.0880	91.4	80	120			
Beryllium	0.198	0.00100	0.200	0	98.8	80	120			
Boron	1.02	0.0300	0.200	0.867	74.6	80	120			S
Cadmium	0.182	0.00100	0.200	0	91.1	80	120			
Chromium	0.199	0.00500	0.200	0.00443	97.4	80	120			
Cobalt	0.193	0.00500	0.200	0	96.3	80	120			
Lead	0.191	0.00100	0.200	0.000664	95.3	80	120			
Lithium	0.200	0.0100	0.200	0.00960	95.2	80	120			
Magnesium	14.3	0.300	5.00	9.83	89.3	80	120			
Molybdenum	0.196	0.00500	0.200	0.00960	93.0	80	120			
Potassium	5.82	0.300	5.00	1.19	92.6	80	120			
Selenium	0.179	0.00500	0.200	0	89.3	80	120			
Thallium	0.192	0.00150	0.200	0	96.1	80	120			

Sample ID **1705121-06A MS** Batch ID: **80436** TestNo: **SW6020A** Units: **mg/L**
SampType: **MS** Run ID: **ICP-MS5_170515B** Analysis Date: **5/15/2017 2:38:00 PM** Prep Date: **5/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.187	0.00250	0.200	0	93.7	80	120			
Arsenic	0.196	0.00500	0.200	0.00908	93.7	80	120			
Barium	0.274	0.0100	0.200	0.0880	93.2	80	120			
Beryllium	0.196	0.00100	0.200	0	98.2	80	120			
Boron	1.12	0.0300	0.200	0.867	126	80	120			S
Cadmium	0.183	0.00100	0.200	0	91.4	80	120			
Calcium	68.6	0.300	5.00	64.4	82.7	80	120			
Chromium	0.196	0.00500	0.200	0.00443	95.9	80	120			
Cobalt	0.192	0.00500	0.200	0	95.8	80	120			
Lead	0.193	0.00100	0.200	0.000664	96.1	80	120			
Lithium	0.204	0.0100	0.200	0.00960	97.1	80	120			
Magnesium	14.8	0.300	5.00	9.83	99.8	80	120			
Molybdenum	0.203	0.00500	0.200	0.00960	96.5	80	120			
Potassium	5.95	0.300	5.00	1.19	95.1	80	120			
Selenium	0.182	0.00500	0.200	0	91.0	80	120			
Sodium	110	0.300	5.00	106	94.4	80	120			
Thallium	0.193	0.00150	0.200	0	96.3	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705121
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170515B

Sample ID **1705121-06A MSD** Batch ID: **80436** TestNo: **SW6020A** Units: **mg/L**
SampType: **MSD** Run ID: **ICP-MS5_170515B** Analysis Date: **5/15/2017 2:40:00 PM** Prep Date: **5/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.188	0.00250	0.200	0	93.9	80	120	0.242	15	
Arsenic	0.195	0.00500	0.200	0.00908	92.8	80	120	0.920	15	
Barium	0.276	0.0100	0.200	0.0880	93.8	80	120	0.438	15	
Beryllium	0.192	0.00100	0.200	0	96.2	80	120	2.02	15	
Boron	1.08	0.0300	0.200	0.867	108	80	120	3.12	15	
Cadmium	0.183	0.00100	0.200	0	91.6	80	120	0.161	15	
Calcium	67.5	0.300	5.00	64.4	62.3	80	120	1.50	15	S
Chromium	0.192	0.00500	0.200	0.00443	94.0	80	120	1.98	15	
Cobalt	0.190	0.00500	0.200	0	95.0	80	120	0.882	15	
Lead	0.191	0.00100	0.200	0.000664	95.4	80	120	0.723	15	
Lithium	0.208	0.0100	0.200	0.00960	99.4	80	120	2.22	15	
Magnesium	14.5	0.300	5.00	9.83	94.0	80	120	1.97	15	
Molybdenum	0.202	0.00500	0.200	0.00960	96.3	80	120	0.145	15	
Potassium	5.83	0.300	5.00	1.19	92.7	80	120	2.06	15	
Selenium	0.181	0.00500	0.200	0	90.6	80	120	0.486	15	
Sodium	108	0.300	5.00	106	55.0	80	120	1.80	15	S
Thallium	0.193	0.00150	0.200	0	96.5	80	120	0.209	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705121
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170516A

The QC data in batch 80436 applies to the following samples: 1705121-01A, 1705121-02A, 1705121-03A, 1705121-04A, 1705121-05A, 1705121-06A

Sample ID **1705121-06A SD** Batch ID: **80436** TestNo: **SW6020A** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS5_170516A** Analysis Date: **5/16/2017 12:33:00 PM** Prep Date: **5/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	65.1	15.0	0	66.5				2.05	10	
Sodium	112	15.0	0	113				0.869	10	

Sample ID **1705121-06A PDS** Batch ID: **80436** TestNo: **SW6020A** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS5_170516A** Analysis Date: **5/16/2017 12:51:00 PM** Prep Date: **5/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	116	3.00	50.0	66.5	99.4	80	120			
Sodium	165	3.00	50.0	113	105	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705121
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_170515B

The QC data in batch 80464 applies to the following samples: 1705121-01C, 1705121-02C, 1705121-03C, 1705121-04C, 1705121-05C, 1705121-06C

Sample ID **MB-80464** Batch ID: **80464** TestNo: **M2320 B** Units: **mg/L @ pH 4.23**
SampType: **MBLK** Run ID: **TITRATOR_170515B** Analysis Date: **5/15/2017 12:28:00 PM** Prep Date: **5/15/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0								
Alkalinity, Total (As CaCO3)	<20.0	20.0								

Sample ID **LCS-80464** Batch ID: **80464** TestNo: **M2320 B** Units: **mg/L @ pH 4.1**
SampType: **LCS** Run ID: **TITRATOR_170515B** Analysis Date: **5/15/2017 12:32:00 PM** Prep Date: **5/15/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	51.0	20.0	50.00	0	102	74	129			

Sample ID **1705121-06C-DUP** Batch ID: **80464** TestNo: **M2320 B** Units: **mg/L @ pH 4.52**
SampType: **DUP** Run ID: **TITRATOR_170515B** Analysis Date: **5/15/2017 2:35:00 PM** Prep Date: **5/15/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	247	20.0	0	246.8				0	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	247	20.0	0	246.8				0	20	

Sample ID **1705122-01C-DUP** Batch ID: **80464** TestNo: **M2320 B** Units: **mg/L @ pH 4.11**
SampType: **DUP** Run ID: **TITRATOR_170515B** Analysis Date: **5/15/2017 2:42:00 PM** Prep Date: **5/15/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	43.1	20.0	0	39.10				9.73	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	43.1	20.0	0	39.10				9.73	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01348
Client Sample ID: S171311605 (Batch 55171)
Sample Collection Date: 05/11/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01348-001
Date Received: 05/12/17
Report Date: 06/07/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.283	0.149	0.155	0.059	NP		pCi/L	ARS-010/EPA 903.0/904.0	06/01/17 7:39	SCAUSEY	94%
Ra-228	0.926	0.731	1.149	0.533	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	05/25/17 12:19	SCAUSEY	98%

Project Manager Review

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01348
Client Sample ID: S171311608 (Batch 55171)
Sample Collection Date: 05/11/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01348-002
Date Received: 05/12/17
Report Date: 06/07/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.238	0.150	0.166	0.059	NP		pCi/L	ARS-010/EPA 903.0/904.0	06/01/17 7:39	SCAUSEY	76%
Ra-228	1.586	0.981	1.468	0.680	NP		pCi/L	ARS-010/EPA 903.0/904.0	05/25/17 12:19	SCAUSEY	78%

Project Manager Review

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01348
Client Sample ID: S171311609 (Batch 55171)
Sample Collection Date: 05/11/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01348-003
Date Received: 05/12/17
Report Date: 06/07/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.281	0.166	0.216	0.090	NP		pCi/L	ARS-010/EPA 903.0/904.0	06/01/17 7:39	SCAUSEY	96%
Ra-228	1.274	0.815	1.238	0.577	NP		pCi/L	ARS-010/EPA 903.0/904.0	05/25/17 12:19	SCAUSEY	99%

Project Manager Review

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01348
Client Sample ID: S171311610 (Batch 55171)
Sample Collection Date: 05/11/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01348-004
Date Received: 05/12/17
Report Date: 06/07/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.532	0.214	0.208	0.085	NP		pCi/L	ARS-010/EPA 903.0/904.0	06/01/17 7:39	SCAUSEY	103%
Ra-228	0.686	0.688	1.120	0.520	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	05/25/17 12:19	SCAUSEY	104%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01348
Client Sample ID: S171311611 (Batch 55171)
Sample Collection Date: 05/11/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01348-005
Date Received: 05/12/17
Report Date: 06/07/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.195	0.149	0.210	0.085	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/01/17 7:39	SCAUSEY	92%
Ra-228	0.630	0.774	1.288	0.599	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	05/25/17 12:19	SCAUSEY	87%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01348
Client Sample ID: S171311612 (Batch 55171)
Sample Collection Date: 05/11/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01348-006
Date Received: 05/12/17
Report Date: 06/07/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.289	0.159	0.180	0.071	NP		pCi/L	ARS-010/EPA 903.0/904.0	06/01/17 7:39	SCAUSEY	98%
Ra-228	0.254	0.621	1.080	0.501	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	05/25/17 12:19	SCAUSEY	98%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

QC Results Report

Sample Delivery Group: ARS1-17-01348

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-00953	LCS	RA-226	30.353	4.882	0.095	27.635	N/A	pCi/L	ARS-010/EPA 903	6/1/17 9:39	SC	110	75%-125%
ARS1-B17-00953	LCS	RA-228	31.965	5.361	1.075	39.784	N/A	pCi/L	ARS-010/EPA 904	5/25/17 14:19	SC	80	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-00953	MBL	RA-226	0.027	0.048	0.086	NA	U	pCi/L	ARS-010/EPA 903	6/1/17 9:39	SC
ARS1-B17-00953	MBL	RA-228	-0.098	0.324	0.597	NA	U	pCi/L	ARS-010/EPA 904	5/25/17 14:19	SC

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-00953	LCSD	RA-226	30.353	4.882	33.451	5.378	N/A	pCi/L	ARS-010/EPA 903	6/1/17 9:39	SC	0.30	< 1
ARS1-B17-00953	LCSD	RA-228	31.965	5.361	34.943	5.815	N/A	pCi/L	ARS-010/EPA 904	5/25/17 14:19	SC	0.27	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-00953	LCSD	RA-226	30.353	4.882	33.451	5.378	N/A	pCi/L	ARS-010/EPA 903	6/1/17 9:39	SC	0.43	< 3
ARS1-B17-00953	LCSD	RA-228	31.965	5.361	34.943	5.815	N/A	pCi/L	ARS-010/EPA 904	5/25/17 14:19	SC	0.38	< 3

Matrix Spike

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery(%)	MS Acceptance Range
ARS1-B17-00953	MS	Ra-226	62.161	10.006	0.149	56.874	N/A	pCi/L	ARS-010/EPA 903	6/1/17 9:39	SC	109	60%-140%
ARS1-B17-00603	MSD	Ra-226	58.097	9.353	0.143	56.120	N/A	pCi/L	ARS-010/EPA 903	6/1/17 9:39	SC	104	60%-140%
ARS1-B17-00603	MS	Ra-228	37.150	6.295	1.217	53.414	N/A	pCi/L	ARS-010/EPA 904	5/25/17 14:19	SC	70	60%-140%
ARS1-B17-00953	MSD	Ra-228	43.659	7.312	1.458	52.532	N/A	pCi/L	ARS-010/EPA 904	5/25/17 14:19	SC	83	60%-140%

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

ARS INTERNATIONAL

2609 North River Road • Port Allen, Louisiana 70767

1 (800) 401-4277 • Fax (225) 381-2996

Notes (Case Narrative):

Comments:

1.0) All MDA/MDC values are calculated on a sample specific basis.
2.0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.
3.0) Data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.
4.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix. Modified analyses are indicated by the subsequent addition of "m" to the procedure number (i.e. 900.0M).
5.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than the actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
6.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228 (Gamma Spectroscopy only).
7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234 (Gamma Spectroscopy only).
8.0) All gamma spectroscopy was performed utilizing high purity germanium detectors **(HPGe)**.
9.0) ARS makes every attempt to match sample density to calibrated density; however, in some cases, it is not practical or possible to do so and data results may be affected (Gamma Spectroscopy only).
10.0) Gamma spectroscopy results are calculated values based on the **ORTEC®** GammaVision ENV32 Analysis Engine.
11.0) ACLASS DOD and ISO 17025 certification applies only to the following analytes and methods: Gross Alpha and Gross Beta (EPA 900, SM7110B&C, SW846 9310); Radium 226 (EPA 903, EPA 903.1, SM 7500 Ra-B, SW846 9315); Radium 228 (EPA 904, SM 7500 Ra-B SW846 9320); Iodine-131(EPA 901.1); Uranium by ICPMS (EPA 200.8); Strontium 89/90 (EPA 905, Eichrom SRW01, HASL 300 Sr-03-RC); Tritium (EPA 906, EPA 906M); Gamma Emitters (EPA 901.1, SM7120B, HASL 300 Ga-01-R); Americium-241, Curium 242/244, Plutonium 239/240 and 241, Thorium 228/230/232, Uranium 234/233 and 238 (Eichrom ACW03 VBS); Lead 210 (HASL 300 Pb-01-RC, Eichrom OTW01); Polonium 210 (HASL 300 Po-01-RC, HASL 300 Po-02-RC); Technetium-99 (Eichrom TCW02, Eichrom TCS01M).

Method References:

1.0) **EPA 600/4-80-032**; Prescribed Procedures for the Measurements of Radioactivity in Drinking Water, August 1980.
2.0) **Standard Methods for the Examination of Water and Wastewater** (On-Line Edition)
3.0) **EPA SW-846**; Test Methods for Evaluating Solid Waste, (On-Line edition)
4.0) **EPA 600/4/79-020**; Methods for Chemical Analysis of Water and Waste, March 1983.
5.0) **HASL 300**; The Procedures Manual of the Environmental Measurements Laboratory, Volume I, 28th Edition February, 1997.

Definitions:

CRDL	Contract Required Detection Limit
CSU	Combined Standard Uncertainty
DLC	Decision Level Concentration (ANSI N42.23) or critical level
DO	Duplicate Original
DUP	Method Duplicate
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
MDA	Minimum Detectable Activity
MDC	(Minimum Detectable Concentration) minimum concentration of the analyte that ARS can detect utilizing the specific analysis
MBL	Method Blank
MS/MSD	Matrix Spike/Matrix Spike Duplicate
N/A	Not Applicable
NP	Not Provided
NR	Not Referenced
LOD	Limit of Detection
LOQ	Limit of Quantitation

Data Qualifiers:

B	The analyte is found in both the associated method blank and the sample. This flag indicates probable blank contamination.
D	Sample analysis accomplished through dilution.
J	The reported result is an estimated value above the limit of detection but outside of quantitation range (e.g., matrix interference was observed).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).
U	Activity is below the MDC, MDA, MDL, or LOD
N	The analyte is a tentatively identified compound using mass spectrometry or any non-customer requested compounds that are tentatively identified.
*	LCS/LCSD or MS/MSD fails RPD criteria.
S	Spike
SC	Subcontracted out to another qualified laboratory
H	Holding time exceeded

LELAP Cert# 01949 ***NELAP Cert# E87558***

ARS-059-010
Revision: 9.1
Revision Date: 03-14-2017

B - Environmental

Chain of Custody Record

Batch # 55171 | TEMP UN-C: 7.4 | Page 1 of 2 | THERM ID# 3 | TEMP Corr: 7.2

Customer / Report Information

Name: Coleto Creek Power
Attention: Rick Coleman
Address:

Billing Information

X Check box if Billing is the same as Report Information
Address:
Attention: PO#:
Project:
Comments: CCR Sampling

Phone: 361-788-5145 FAX:
EMAIL: Richard.Coleman@aynegy.com

Requested Analysis: B C A E D
Completed By Laboratory

Sample Information

Collected By:

Client / Field Sample ID	Collected Date	Collected Time	G=Grab C=Composite	Matrix (DW - Drinking H20, S - Solid, WW - Waste H20, SL - Sludge, L - Liquid, W - Water)	Container TYPE	Container NUMBER	Container SIZE	Preservative	Metals*	Cl, F, SO4	PH	TDS	Ra 226/228	Alk: BT Calc	Diss Li & MO	Custody Seals Present (Yes / No)	Intact (Yes / No)	LAB Sample Number
BV-10	5-11-17	843	G	W	P	6	1L 500 250	X ICE, X HNO3	X	X	X	X	X	X	X			S171311605
BV-1	5-11-17	1040						X ICE, X HNO3										S171311608
BV-5	5-11-17	1130						X ICE, X HNO3										S171311609
BV-19	5-11-17	1001						X ICE, X HNO3										S171311610
MW-6	5-11-17	1310						X ICE, X HNO3										S171311611
MW-7	5-11-17	1340						X ICE, X HNO3										S171311612
								X ICE, X HNO3										

Required Turnaround: X Routine (6-10 Business Days) Expedite / Rush: ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business Days X 5 Business Days ☐ Other _____ REMARKS:

Surcharge will apply to RUSH TAT Authorized By:

Container Type: P=Plastic, G=Glass, V=VOA, O=Other | Carrier ID :

Relinquished By:		Date: 5-11-17	Time: 1535	Received By:		Date: 5-11-17	Time: 15:35	
Relinquished By:		Date:	Time:	Received By:		Date:	Time:	
Relinquished By:		Date:	Time:	Received By:		Date:	Time:	

1606 E Brazos Suite D, Victoria, Texas 77901 Ph. (361) 572-8224 Fax (361) 572-4115 Toll Free 1-800-460-8223 Form #1000.0-2 REV 1.2 Email: kbenviro@suddenlinkmail.com www.benvironmental.net

Fluoride: 0.25 mg/L; Metals:* B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, Mg, K, Na, & Hg

B - Environmental

Chain of Custody Recor

Batch # 55171 | TEMP UN-C: 7.4 | Page 2 of 2 | THERM ID# 3 | TEMP Corr: 7.2

Check box if Billing is the same as Report Information

Customer / Report Information

Name: Coleto Creek Power
Attention: Rick Coleman
Address:

Billing Information

Address:
Attention: PO#:
Project:
Comments: CCR SAMPLING

Phone: 361-788-5145 FAX:
EMAIL: Richard.coleman@dynegy.com

Requested Analysis | **Completed By Laboratory**

Sample Information

Collected By:

Client / Field Sample ID	Collected Date	Collected Time	G=Grab C=Composite	Matrix (DW - Drinking H20, S - Solid, WW - Waste H20, SL - Sludge, L - Liquid, W - Water)	Container TYPE	Container NUMBER	Container SIZE	Preservative
MS_MW7	5-11-17	1340	G	W	P	6	1L 500 250	H2SO4, HNO3, H3PO4, NaOH, ICE, HCL, Na2SO3
MSD_MW7	5-11-17	1340						

Metals* | Cl, F, SO4 | PH | TDS | Ra 226/228 | Alk: Bicarb | Diss Li (MS)

Custody Seals Present: Yes ☐ No ☐
Intact: Yes ☐ No ☐
LAB Sample Number

Required Turnaround: Routine (6-10 Business Days) Expedite / Rush: ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business Days ☒ 5 Business Days ☐ Other _____ REMARKS:

Surcharge will apply to RUSH TAT Authorized By:

Container Type: P=Plastic, G=Glass, V=VOA, O=Other | Carrier ID :

Relinquished By:		Date:	5-11-17	Time:	1535	Received By:		Date:	5-11-17	Time:	15:35
Relinquished By:		Date:		Time:		Received By:		Date:		Time:	
Relinquished By:		Date:		Time:		Received By:		Date:		Time:	

Fluoride: 0.25 mg/L; Metals: B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Ti, Mg, K, Na, & Hg

BatchNo: 55339

SAMPLE REPORT

T104704328-17-14

Business

Coleto Creek Power - R Coleman
PO Box 8
Fannin TX 77960
Att: Rick Coleman

Laboratory

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901
ph. 361-572-8224

Reference Information

Project: CCR Sampling

Printed: Friday, June 23, 2017

Re: Coleto Creek Power - R Coleman

Dear: Rick Coleman

Attached are the results for sample(s) received on 5/15/2017

The analytical results relate only to the samples tested.
All supporting quality data meets the requirements of NELAC unless noted in the case narrative section of the report.

This report contains 46 pages (including the cover page)

If you have any questions concerning this report, please do not hesitate to call (361) 572-8224 or Fax us at (361) 572-4115

Respectfully Submitted,

Kevin Baros

Laboratory Director

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55339

Batch No: 55339

Sample Receipt Checklist

Date Received: 5/16/2017

Project	CCR Sampling	Received By:	Vahrenkamp
Login completed by:	Vahrenkamp	5/16/2017	
	Signature	LoginDate:	

Carrier Name: Walk In

Shipping container/cooler in good condition?	☑ YES	☐ NO	☐ Not Present
Custody seals intact on shipping container/cooler?	☐ YES	☐ NO	☑ Not Present
Custody seals intact on sample bottles?	☐ YES	☐ NO	☑ Not Present
Chain of Custody present?	☑ YES	☐ NO	
Chain of Custody signed when relinquished and received	☑ YES	☐ NO	
Chain of Custody agrees with sample labels?	☑ YES	☐ NO	
Samples in proper container/bottles?	☑ YES	☐ NO	
Sample containers intact?	☑ YES	☐ NO	
Sufficient sample volume for indicated tests?	☑ YES	☐ NO	
All samples received within holding times?	☑ YES	☐ NO	
Container/Temp Blank - temperature in compliance?	☑ YES	☐ NO	>0 <6 °C On Ice
Water - VOA vials have zero headspace? Bubble < 6mm?	☐ YES	☐ NO	☑ No VOA Vials submitted
Water - pH acceptable upon receipt?	☑ YES	☐ NO	☐ Not Applicable

*TEMP 5.1/4.9 | pH Adjusted? No | Checked By L. Vahrenkamp

Any No and/or N/A (not applicable) response must be detailed in the comments section below.

Client contacted		PersonContacted	
Contacted by:		Date Contacted:	

Regarding

Comments

Therm. #3. HNO3 Lot# 2-42-12. pH Paper Lot# 2-25-6.

Corrective Action

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55339

Sample Report Information

Sample ID:	S171361013	Client ID:	BV-15	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV 15
Notes:

Batch No: 55339
Sampled: 5/15/2017 9:57 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	59	mg/L	EPA 300	K Baros	5/17/2017 19:48	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	186	mg/L	SM 2320 B		5/18/2017 12:26	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/18/2017 12:26	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	186	mg/L	SM 2320 B		5/18/2017 12:26	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.8	mg/L	EPA 300	K Baros	5/17/2017 19:48	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.32	SU	SM 4500-H+B	C Watts	5/15/2017 16:30					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	448	mg/L	SM2540C	C Watts	5/18/2017 16:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			5/19/2017 13:54					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	93.9	mg/L	EPA 300	K Baros	5/17/2017 19:48	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			6/14/2017 7:44					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55339

Sample Report Information

Sample ID:	S171361016	Client ID:	MW-4	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #4
Notes:

Batch No: 55339
Sampled: 5/15/2017 9:08 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	101	mg/L	EPA 300	K Baros	5/17/2017 19:48	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	239	mg/L	SM 2320 B		5/18/2017 12:35	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/18/2017 12:35	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	239	mg/L	SM 2320 B		5/18/2017 12:35	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.6	mg/L	EPA 300	K Baros	5/17/2017 19:48	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.07	SU	SM 4500-H+B	C Watts	5/15/2017 16:30					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	702	mg/L	SM2540C	C Watts	5/18/2017 16:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	c	#			5/19/2017 13:56					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	157	mg/L	EPA 300	K Baros	5/17/2017 19:48	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	c	#			6/14/2017 7:44					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55339

Sample Report Information

Sample ID:	S171361017	Client ID:	MW-8	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #8
Notes:

Batch No: 55339
Sampled: 5/15/2017 10:58 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	76	mg/L	EPA 300	K Baros	5/17/2017 19:48	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	258	mg/L	SM 2320 B		5/18/2017 12:45	10	10			☐	
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/18/2017 12:45	10	10			☐	
Alkalinity, Total	258	mg/L	SM 2320 B		5/18/2017 12:45	10	10			☐	
Fluoride, IC	0.44	mg/L	EPA 300	K Baros	5/17/2017 19:48	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.05	SU	SM 4500-H+B	C Watts	5/15/2017 16:30					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	558	mg/L	SM2540C	C Watts	5/18/2017 16:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			5/19/2017 13:37					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	79	mg/L	EPA 300	K Baros	5/17/2017 19:48	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			6/14/2017 7:44					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55339

Sample Report Information

Sample ID:	S171361018	Client ID:	DUP	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: Dup
Notes:

Batch No: 55339
Sampled: 5/15/2017 10:58 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	101	mg/L	EPA 300	K Baros	5/17/2017 19:48	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	241	mg/L	SM 2320 B		5/18/2017 13:03	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/18/2017 13:03	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	241	mg/L	SM 2320 B		5/18/2017 13:03	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.6	mg/L	EPA 300	K Baros	5/17/2017 19:48	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	6.95	SU	SM 4500-H+B	C Watts	5/15/2017 16:30					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	686	mg/L	SM2540C	C Watts	5/18/2017 16:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			5/19/2017 14:12					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	157	mg/L	EPA 300	K Baros	5/17/2017 19:48	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			6/14/2017 7:44					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55339

Sample Report Information

Sample ID:	S171361019	Client ID:	BV-19	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV-19
Notes:

Batch No: 55339
Sampled: 5/15/2017 1:38 PM

Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	122	mg/L	EPA 300	K Baros	5/17/2017 19:48	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	320	mg/L	SM 2320 B		5/18/2017 13:15	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/18/2017 13:15	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	320	mg/L	SM 2320 B		5/18/2017 13:15	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.49	mg/L	EPA 300	K Baros	5/17/2017 19:48	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	6.92	SU	SM 4500-H+B	C Watts	5/15/2017 16:00					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	684	mg/L	SM2540C	C Watts	5/22/2017 17:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			5/19/2017 14:14					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	62	mg/L	EPA 300	K Baros	5/17/2017 19:48	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			6/14/2017 7:44					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55339

Sample Report Information

Sample ID:	S171361020	Client ID:	BV-10	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV-10
Notes:

Batch No: 55339
Sampled: 5/15/2017 2:12 PM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	85	mg/L	EPA 300	K Baros	5/17/2017 19:48	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	284	mg/L	SM 2320 B		5/18/2017 13:25	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/18/2017 13:25	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	284	mg/L	SM 2320 B		5/18/2017 13:25	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.79	mg/L	EPA 300	K Baros	5/17/2017 19:48	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.38	SU	SM 4500-H+B	C Watts	5/15/2017 16:30					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	626	mg/L	SM2540C	C Watts	5/22/2017 17:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			5/19/2017 14:16					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	83	mg/L	EPA 300	K Baros	5/17/2017 19:48	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			6/16/2017 9:29					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55339

Sample Report Information

Sample ID:	S171361021	Client ID:	BV-1	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV-1
Notes:

Batch No: 55339
Sampled: 5/15/2017 2:46 PM

Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	145	mg/L	EPA 300	K Baros	5/17/2017 19:48	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	386	mg/L	SM 2320 B		5/18/2017 13:39	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/18/2017 13:39	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	386	mg/L	SM 2320 B		5/18/2017 13:39	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.71	mg/L	EPA 300	K Baros	5/17/2017 19:48	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.04	SU	SM 4500-H+B	C Watts	5/15/2017 16:30					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	980	mg/L	SM2540C	C Watts	5/22/2017 17:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			5/19/2017 14:18					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	182	mg/L	EPA 300	K Baros	5/17/2017 19:48	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			6/16/2017 9:29					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55339

Sample Report Information

Sample ID:	S171361026	Client ID:	Blank	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: Blank
Notes:

Batch No: 55339
Sampled: 5/15/2017 2:55 PM

Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	< 1	mg/L	EPA 300	K Baros	5/17/2017 19:48	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	< 20	mg/L	SM 2320 B		5/18/2017 13:41	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/18/2017 13:41	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	< 20	mg/L	SM 2320 B		5/18/2017 13:41	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	< 0.25	mg/L	EPA 300	K Baros	5/17/2017 19:48	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	5.48	SU	SM 4500-H+B	C Watts	5/15/2017 16:30					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	< 25	mg/L	SM2540C	C Watts	5/22/2017 17:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			5/19/2017 14:20					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	< 1	mg/L	EPA 300	K Baros	5/17/2017 19:48	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			6/16/2017 9:29					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55339

QA Summary Report

Parameter	ID	Result	Ref Value	Amt Added	LOQ	Qualifer	Control	Flag	Comments
.Method Blank									
.- Chloride, IC 5/17/2017 13:27	Q171461202	<1mg/L	0		1		1		Blank Acceptable.
Fluoride, IC 5/17/2017 13:27	Q171461202	<0.25mg/L	0		0.25		0.25		Blank Acceptable.
Solids, Total Dissolved 5/18/2017 16:30	Q171391407	<25mg/L	0		10		25		Blank Acceptable.
Solids, Total Dissolved 5/22/2017 17:00	Q171431400	<25mg/L	0		10		25		Blank Acceptable.
Sulfate, IC 5/17/2017 13:27	Q171461202	<1mg/L	0		1		1		Blank Acceptable.
Duplicate									
pH (Standard Units) 5/15/2017 16:30	Q171361622	7.05SU	7.1		2	0.7%	20		Duplicate RPD Acceptable.
Solids, Total Dissolved 5/18/2017 16:30	Q171391408	554mg/L	558		10	0.7%	20		Duplicate RPD Acceptable.
Solids, Total Dissolved 5/22/2017 17:00	Q171431403	4520mg/L	4550		10	0.7%	20		Duplicate RPD Acceptable.
Laboratory Control Standard									
.- Chloride, IC 5/17/2017 14:05	Q171461203	25.4mg/L	25		1	101.6% 1.6%	80 - 120 20		Standard Recovery Acceptable. Standard RPD Acceptable.
Fluoride, IC 5/17/2017 14:05	Q171461203	2.07mg/L	2		0.25	103.5% 3.4%	80 - 120 20		Standard Recovery Acceptable. Standard RPD Acceptable.
pH (Standard Units) 5/15/2017 16:30	Q171361620	7.03SU	7		2	100.4% 0.4%	80 - 120 20		Standard Recovery Acceptable. Standard RPD Acceptable.
Sulfate, IC 5/17/2017 14:05	Q171461203	25.8mg/L	25		1	103.2% 3.1%	80 - 120 20		Standard Recovery Acceptable. Standard RPD Acceptable.
Matrix Spike									
.- Chloride, IC 5/18/2017 12:57	Q171461204	85.3mg/L	82.1	25	1	112.8% 3.8%	80 - 120 20		Spike Recovery Acceptable. Spike RPD Acceptable.
.- Chloride, IC 5/17/2017 22:58	Q17146120A	93.8mg/L	93	25	1	103.2% 0.9%	80 - 120 20		Spike Recovery Acceptable. Spike RPD Acceptable.
Fluoride, IC 5/17/2017 22:58	Q17146120A	2.28mg/L	2.39	2	0.25	94.5% 4.7%	80 - 120 20		Spike Recovery Acceptable. Spike RPD Acceptable.
Fluoride, IC 5/18/2017 12:57	Q171461204	2.95mg/L	3.12	2	0.25	91.5% 5.6%	80 - 120 20		Spike Recovery Acceptable. Spike RPD Acceptable.
Sulfate, IC 5/17/2017 22:58	Q17146120A	96.1mg/L	96	25	1	100.4% 0.1%	70 - 130 20		Spike Recovery Acceptable. Spike RPD Acceptable.
Sulfate, IC 5/18/2017 12:57	Q171461204	77mg/L	83	25	1	76.0% 7.5%	70 - 130 20		Spike Recovery Acceptable. Spike RPD Acceptable.

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55339

Parameter	ID	Result	Ref Value	Amt Added	LOQ	Qualifer	Control	Flag	Comments
Matrix Spike Dup									
.- Chloride, IC	Q17146120B	93.8mg/L	93	25	1	103.2%	80 - 120		Spike Recovery Acceptable.
5/17/2017 23:36						0.9%	20		Spike RPD Acceptable.
.- Chloride, IC	Q17146120C	85mg/L	82.1	25	1	111.6%	80 - 120		Spike Recovery Acceptable.
5/18/2017 13:35						3.5%	20		Spike RPD Acceptable.
Fluoride, IC	Q17146120B	2.28mg/L	2.39	2	0.25	94.5%	80 - 120		Spike Recovery Acceptable.
5/17/2017 23:36						4.7%	20		Spike RPD Acceptable.
Fluoride, IC	Q17146120C	2.93mg/L	3.12	2	0.25	90.5%	80 - 120		Spike Recovery Acceptable.
5/18/2017 13:35						6.3%	20		Spike RPD Acceptable.
Sulfate, IC	Q17146120C	77mg/L	83	25	1	76.0%	70 - 130		Spike Recovery Acceptable.
5/18/2017 13:35						7.5%	20		Spike RPD Acceptable.
Sulfate, IC	Q17146120B	96.2mg/L	96	25	1	100.8%	70 - 130		Spike Recovery Acceptable.
5/17/2017 23:36						0.2%	20		Spike RPD Acceptable.

Flag and Qualifier Legend

Negative - Result Detected
Caution - Problem Detected
Warning - Null Value

MDL = Method Detection Limit ***DF = Dilution Factor***
LOQ = Limit of Quantitation ***j = Analyte detected between MDL and LOQ***
S = surrogate standard out of limit ***H = sample out of hold time***

MS, MSD, RPD- Failure may occur due to matrix interference, data released per QA plan

Friday, June 23, 2017 **B Environmental - LDMS QA Report Summary**

Note: THANK YOU!

DHL Analytical, Inc.

Date: *24-May-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Lab Order: 1705169

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition and Standard Methods.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives except where noted in the following. For Total Metals Analysis, the recoveries of up to three analytes for the Matrix Spike and Matrix Spike Duplicate (1705169-03 MS/MSD) were below the method control limits. These are flagged accordingly in the QC Summary Report. These analytes were within method control limits in the associated LCS. No further corrective action was taken.

For Total Metals Analysis, the recoveries of two analytes for the Post Digestion Spike (1705169-03 PDS) were below the method control limits. These are flagged accordingly in the QC Summary Report. These analytes were within method control limits in the associated Serial Dilution. No further corrective action was taken.

For Total/Dissolved Metals Analysis, the results of dissolved Lithium/Molybdenum for three samples were slightly higher than the results of total Lithium/Molybdenum. The results were within acceptable analytical variation limits. No further corrective action was taken.

DHL Analytical, Inc.

Date: *24-May-17*

CLIENT:	B-Environmental	**Client Sample ID:**	BV-15
Project:	Coleto Creek Power	**Lab ID:**	1705169-01
Project No:	CCR Sampling (55339)	**Alternate ID:**	S171361013
Lab Order:	1705169	**Collection Date:**	05/15/17 09:58 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.00696	0.00500	0.0100	J	mg/L	1	05/19/17 02:58 PM
Dissolved Molybdenum	0.0186	0.00200	0.00500		mg/L	1	05/19/17 02:58 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/19/17 01:54 PM
Arsenic	0.00920	0.00200	0.00500		mg/L	1	05/19/17 01:54 PM
Barium	0.0521	0.00300	0.0100		mg/L	1	05/19/17 01:54 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/22/17 02:11 PM
Boron	1.29	0.100	0.300		mg/L	10	05/22/17 01:08 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/19/17 01:54 PM
Calcium	64.6	1.00	3.00		mg/L	10	05/22/17 01:08 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	05/19/17 01:54 PM
Cobalt	0.0126	0.00300	0.00500		mg/L	1	05/19/17 01:54 PM
Lead	0.00440	0.000300	0.00100		mg/L	1	05/19/17 01:54 PM
Lithium	0.00698	0.00500	0.0100	J	mg/L	1	05/19/17 01:54 PM
Magnesium	9.02	0.100	0.300		mg/L	1	05/19/17 01:54 PM
Molybdenum	0.0186	0.00200	0.00500		mg/L	1	05/19/17 01:54 PM
Potassium	1.22	0.100	0.300		mg/L	1	05/19/17 01:54 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/19/17 01:54 PM
Sodium	76.4	1.00	3.00		mg/L	10	05/22/17 01:08 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/19/17 01:54 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/23/17 09:58 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	186	10.0	20.0		mg/L @ pH 4.52	1	05/18/17 12:26 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	05/18/17 12:26 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	05/18/17 12:26 PM
Alkalinity, Total (As CaCO3)	186	20.0	20.0		mg/L @ pH 4.52	1	05/18/17 12:26 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *24-May-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR Sampling (55339)
Lab Order: 1705169

Client Sample ID: MW-4
Lab ID: 1705169-02
Alternate ID: S171361016
Collection Date: 05/15/17 09:08 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.0166	0.00500	0.0100		mg/L	1	05/19/17 03:00 PM
Dissolved Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	05/19/17 03:00 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/19/17 01:56 PM
Arsenic	0.00794	0.00200	0.00500		mg/L	1	05/19/17 01:56 PM
Barium	0.0556	0.00300	0.0100		mg/L	1	05/19/17 01:56 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/22/17 01:54 PM
Boron	0.251	0.0100	0.0300		mg/L	1	05/22/17 01:54 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/19/17 01:56 PM
Calcium	92.1	1.00	3.00		mg/L	10	05/22/17 01:10 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	05/19/17 01:56 PM
Cobalt	0.00653	0.00300	0.00500		mg/L	1	05/19/17 01:56 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	05/19/17 01:56 PM
Lithium	0.0166	0.00500	0.0100		mg/L	1	05/19/17 01:56 PM
Magnesium	17.2	0.100	0.300		mg/L	1	05/19/17 01:56 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	05/19/17 01:56 PM
Potassium	1.47	0.100	0.300		mg/L	1	05/19/17 01:56 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/19/17 01:56 PM
Sodium	106	1.00	3.00		mg/L	10	05/22/17 01:10 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/19/17 01:56 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/23/17 10:00 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	239	10.0	20.0		mg/L @ pH 4.51	1	05/18/17 12:35 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	05/18/17 12:35 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	05/18/17 12:35 PM
Alkalinity, Total (As CaCO3)	239	20.0	20.0		mg/L @ pH 4.51	1	05/18/17 12:35 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level
C	Sample Result or QC discussed in the Case Narrative
E	TPH pattern not Gas or Diesel Range Pattern
MDL	Method Detection Limit
RL	Reporting Limit
B	Analyte detected in the associated Method Blank
DF	Dilution Factor
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *24-May-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR Sampling (55339)
Lab Order: 1705169

Client Sample ID: MW-8
Lab ID: 1705169-03
Alternate ID: S171361017
Collection Date: 05/15/17 10:58 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.0106	0.00500	0.0100		mg/L	1	05/19/17 02:44 PM
Dissolved Molybdenum	0.0160	0.00200	0.00500		mg/L	1	05/19/17 02:44 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/19/17 01:37 PM
Arsenic	0.00926	0.00200	0.00500		mg/L	1	05/19/17 01:37 PM
Barium	0.0640	0.00300	0.0100		mg/L	1	05/19/17 01:37 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/22/17 02:07 PM
Boron	1.16	0.100	0.300		mg/L	10	05/22/17 12:50 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/19/17 01:37 PM
Calcium	81.2	1.00	3.00		mg/L	10	05/22/17 12:50 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	05/19/17 01:37 PM
Cobalt	0.0311	0.00300	0.00500		mg/L	1	05/19/17 01:37 PM
Lead	0.000494	0.000300	0.00100	J	mg/L	1	05/19/17 01:37 PM
Lithium	0.0112	0.00500	0.0100		mg/L	1	05/19/17 01:37 PM
Magnesium	12.8	0.100	0.300		mg/L	1	05/19/17 01:37 PM
Molybdenum	0.0160	0.00200	0.00500		mg/L	1	05/19/17 01:37 PM
Potassium	1.02	0.100	0.300		mg/L	1	05/19/17 01:37 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/19/17 01:37 PM
Sodium	87.5	1.00	3.00		mg/L	10	05/22/17 12:50 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/19/17 01:37 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/23/17 10:02 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	258	10.0	20.0		mg/L @ pH 4.52	1	05/18/17 12:45 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	05/18/17 12:45 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	05/18/17 12:45 PM
Alkalinity, Total (As CaCO3)	258	20.0	20.0		mg/L @ pH 4.52	1	05/18/17 12:45 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *24-May-17*

CLIENT:	B-Environmental	**Client Sample ID:**	Dup
Project:	Coleto Creek Power	**Lab ID:**	1705169-04
Project No:	CCR Sampling (55339)	**Alternate ID:**	S171361018
Lab Order:	1705169	**Collection Date:**	05/15/17
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.0161	0.00500	0.0100		mg/L	1	05/19/17 03:02 PM
Dissolved Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	05/19/17 03:02 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/19/17 02:12 PM
Arsenic	0.00814	0.00200	0.00500		mg/L	1	05/19/17 02:12 PM
Barium	0.0551	0.00300	0.0100		mg/L	1	05/19/17 02:12 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/19/17 02:12 PM
Boron	0.245	0.0100	0.0300		mg/L	1	05/22/17 01:56 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/19/17 02:12 PM
Calcium	92.0	1.00	3.00		mg/L	10	05/22/17 01:28 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	05/19/17 02:12 PM
Cobalt	0.00648	0.00300	0.00500		mg/L	1	05/19/17 02:12 PM
Lead	0.000536	0.000300	0.00100	J	mg/L	1	05/19/17 02:12 PM
Lithium	0.0178	0.00500	0.0100		mg/L	1	05/19/17 02:12 PM
Magnesium	17.2	0.100	0.300		mg/L	1	05/19/17 02:12 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	05/19/17 02:12 PM
Potassium	1.44	0.100	0.300		mg/L	1	05/19/17 02:12 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/19/17 02:12 PM
Sodium	107	1.00	3.00		mg/L	10	05/22/17 01:28 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/19/17 02:12 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/23/17 10:14 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	241	10.0	20.0		mg/L @ pH 4.52	1	05/18/17 01:03 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	05/18/17 01:03 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	05/18/17 01:03 PM
Alkalinity, Total (As CaCO3)	241	20.0	20.0		mg/L @ pH 4.52	1	05/18/17 01:03 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *24-May-17*

CLIENT:	B-Environmental	**Client Sample ID:**	BV-19
Project:	Coleto Creek Power	**Lab ID:**	1705169-05
Project No:	CCR Sampling (55339)	**Alternate ID:**	S171361019
Lab Order:	1705169	**Collection Date:**	05/15/17 01:38 PM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.0130	0.00500	0.0100		mg/L	1	05/19/17 03:04 PM
Dissolved Molybdenum	0.00487	0.00200	0.00500	J	mg/L	1	05/19/17 03:04 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/19/17 02:14 PM
Arsenic	0.00872	0.00200	0.00500		mg/L	1	05/19/17 02:14 PM
Barium	0.0916	0.00300	0.0100		mg/L	1	05/19/17 02:14 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/19/17 02:14 PM
Boron	0.754	0.100	0.300		mg/L	10	05/22/17 01:30 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/19/17 02:14 PM
Calcium	101	1.00	3.00		mg/L	10	05/22/17 01:30 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	05/19/17 02:14 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	05/19/17 02:14 PM
Lead	0.000348	0.000300	0.00100	J	mg/L	1	05/19/17 02:14 PM
Lithium	0.0138	0.00500	0.0100		mg/L	1	05/19/17 02:14 PM
Magnesium	23.1	0.100	0.300		mg/L	1	05/19/17 02:14 PM
Molybdenum	0.00470	0.00200	0.00500	J	mg/L	1	05/19/17 02:14 PM
Potassium	0.692	0.100	0.300		mg/L	1	05/19/17 02:14 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/19/17 02:14 PM
Sodium	88.5	1.00	3.00		mg/L	10	05/22/17 01:30 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/19/17 02:14 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/23/17 10:16 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	320	10.0	20.0		mg/L @ pH 4.53	1	05/18/17 01:15 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	05/18/17 01:15 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	05/18/17 01:15 PM
Alkalinity, Total (As CaCO3)	320	20.0	20.0		mg/L @ pH 4.53	1	05/18/17 01:15 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *24-May-17*

CLIENT:	B-Environmental	**Client Sample ID:**	BV-10
Project:	Coleto Creek Power	**Lab ID:**	1705169-06
Project No:	CCR Sampling (55339)	**Alternate ID:**	S171361020
Lab Order:	1705169	**Collection Date:**	05/15/17 02:12 PM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.0102	0.00500	0.0100		mg/L	1	05/19/17 03:23 PM
Dissolved Molybdenum	0.00777	0.00200	0.00500		mg/L	1	05/19/17 03:23 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/19/17 02:16 PM
Arsenic	0.0133	0.00200	0.00500		mg/L	1	05/19/17 02:16 PM
Barium	0.0499	0.00300	0.0100		mg/L	1	05/19/17 02:16 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/19/17 02:16 PM
Boron	1.07	0.100	0.300		mg/L	10	05/22/17 01:32 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/19/17 02:16 PM
Calcium	40.2	1.00	3.00		mg/L	10	05/22/17 01:32 PM
Chromium	0.00445	0.00200	0.00500	J	mg/L	1	05/19/17 02:16 PM
Cobalt	0.212	0.00300	0.00500		mg/L	1	05/19/17 02:16 PM
Lead	0.00420	0.000300	0.00100		mg/L	1	05/19/17 02:16 PM
Lithium	0.0110	0.00500	0.0100		mg/L	1	05/19/17 02:16 PM
Magnesium	7.21	0.100	0.300		mg/L	1	05/19/17 02:16 PM
Molybdenum	0.00763	0.00200	0.00500		mg/L	1	05/19/17 02:16 PM
Potassium	0.781	0.100	0.300		mg/L	1	05/19/17 02:16 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/19/17 02:16 PM
Sodium	167	1.00	3.00		mg/L	10	05/22/17 01:32 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/19/17 02:16 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/23/17 10:23 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	284	10.0	20.0		mg/L @ pH 4.53	1	05/18/17 01:25 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	05/18/17 01:25 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	05/18/17 01:25 PM
Alkalinity, Total (As CaCO3)	284	20.0	20.0		mg/L @ pH 4.53	1	05/18/17 01:25 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *24-May-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR Sampling (55339)
Lab Order: 1705169

Client Sample ID: BV-1
Lab ID: 1705169-07
Alternate ID: S171361021
Collection Date: 05/15/17 02:46 PM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.0142	0.00500	0.0100		mg/L	1	05/19/17 03:25 PM
Dissolved Molybdenum	0.00431	0.00200	0.00500	J	mg/L	1	05/19/17 03:25 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/19/17 02:18 PM
Arsenic	0.0106	0.00200	0.00500		mg/L	1	05/19/17 02:18 PM
Barium	0.0463	0.00300	0.0100		mg/L	1	05/19/17 02:18 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/19/17 02:18 PM
Boron	1.23	0.200	0.600		mg/L	20	05/22/17 01:34 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/19/17 02:18 PM
Calcium	68.4	2.00	6.00		mg/L	20	05/22/17 01:34 PM
Chromium	0.00897	0.00200	0.00500		mg/L	1	05/19/17 02:18 PM
Cobalt	0.372	0.00300	0.00500		mg/L	1	05/19/17 02:18 PM
Lead	0.00560	0.000300	0.00100		mg/L	1	05/19/17 02:18 PM
Lithium	0.0141	0.00500	0.0100		mg/L	1	05/19/17 02:18 PM
Magnesium	10.9	0.100	0.300		mg/L	1	05/19/17 02:18 PM
Molybdenum	0.00424	0.00200	0.00500	J	mg/L	1	05/19/17 02:18 PM
Potassium	0.577	0.100	0.300		mg/L	1	05/19/17 02:18 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/19/17 02:18 PM
Sodium	255	2.00	6.00		mg/L	20	05/22/17 01:34 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/19/17 02:18 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/23/17 10:25 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	386	10.0	20.0		mg/L @ pH 4.53	1	05/18/17 01:39 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	05/18/17 01:39 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	05/18/17 01:39 PM
Alkalinity, Total (As CaCO3)	386	20.0	20.0		mg/L @ pH 4.53	1	05/18/17 01:39 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level
C	Sample Result or QC discussed in the Case Narrative
E	TPH pattern not Gas or Diesel Range Pattern
MDL	Method Detection Limit
RL	Reporting Limit
B	Analyte detected in the associated Method Blank
DF	Dilution Factor
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *24-May-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR Sampling (55339)
Lab Order: 1705169

Client Sample ID: Blank
Lab ID: 1705169-08
Alternate ID: S171361026
Collection Date: 05/15/17 02:55 PM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	<0.00500	0.00500	0.0100		mg/L	1	05/19/17 03:27 PM
Dissolved Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	05/19/17 03:27 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/19/17 02:20 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	05/19/17 02:20 PM
Barium	<0.00300	0.00300	0.0100		mg/L	1	05/19/17 02:20 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/19/17 02:20 PM
Boron	<0.0100	0.0100	0.0300		mg/L	1	05/19/17 02:20 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/22/17 01:36 PM
Calcium	0.166	0.100	0.300	J	mg/L	1	05/19/17 02:20 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	05/19/17 02:20 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	05/19/17 02:20 PM
Lead	0.000395	0.000300	0.00100	J	mg/L	1	05/19/17 02:20 PM
Lithium	<0.00500	0.00500	0.0100		mg/L	1	05/19/17 02:20 PM
Magnesium	<0.100	0.100	0.300		mg/L	1	05/19/17 02:20 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	05/19/17 02:20 PM
Potassium	<0.100	0.100	0.300		mg/L	1	05/19/17 02:20 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/19/17 02:20 PM
Sodium	<0.100	0.100	0.300		mg/L	1	05/22/17 01:36 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/19/17 02:20 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/23/17 10:27 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	05/18/17 01:41 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	05/18/17 01:41 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	05/18/17 01:41 PM
Alkalinity, Total (As CaCO3)	<20.0	20.0	20.0		mg/L @ pH 4.52	1	05/18/17 01:41 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *24-May-17*

CLIENT: B-Environmental
Work Order: 1705169
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_170523A

The QC data in batch 80511 applies to the following samples: 1705169-01A, 1705169-02A, 1705169-03A, 1705169-04A, 1705169-05A, 1705169-06A, 1705169-07A, 1705169-08A

Sample ID	MB-80511	Batch ID:	80511	TestNo:	SW7470A	Units:	mg/L
SampType:	MBLK	Run ID:	CETAC2_HG_170523A	Analysis Date:	5/23/2017 9:40:18 AM	Prep Date:	5/18/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.0000800	0.000200								

Sample ID	LCS-80511	Batch ID:	80511	TestNo:	SW7470A	Units:	mg/L
SampType:	LCS	Run ID:	CETAC2_HG_170523A	Analysis Date:	5/23/2017 9:42:34 AM	Prep Date:	5/18/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00200	0.000200	0.00200	0	100	85	115			

Sample ID	LCSD-80511	Batch ID:	80511	TestNo:	SW7470A	Units:	mg/L
SampType:	LCSD	Run ID:	CETAC2_HG_170523A	Analysis Date:	5/23/2017 9:44:50 AM	Prep Date:	5/18/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00194	0.000200	0.00200	0	97.0	85	115	3.05	15	

Sample ID	1705169-03A SD	Batch ID:	80511	TestNo:	SW7470A	Units:	mg/L
SampType:	SD	Run ID:	CETAC2_HG_170523A	Analysis Date:	5/23/2017 10:05:13 AM	Prep Date:	5/18/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.000400	0.00100	0	0				0	10	

Sample ID	1705169-03A PDS	Batch ID:	80511	TestNo:	SW7470A	Units:	mg/L
SampType:	PDS	Run ID:	CETAC2_HG_170523A	Analysis Date:	5/23/2017 10:07:29 AM	Prep Date:	5/18/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00241	0.000200	0.00250	0	96.4	85	115			

Sample ID	1705169-03A MS	Batch ID:	80511	TestNo:	SW7470A	Units:	mg/L
SampType:	MS	Run ID:	CETAC2_HG_170523A	Analysis Date:	5/23/2017 10:09:45 AM	Prep Date:	5/18/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00194	0.000200	0.00200	0	97.0	80	120			

Sample ID	1705169-03A MSD	Batch ID:	80511	TestNo:	SW7470A	Units:	mg/L
SampType:	MSD	Run ID:	CETAC2_HG_170523A	Analysis Date:	5/23/2017 10:12:01 AM	Prep Date:	5/18/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00196	0.000200	0.00200	0	98.0	80	120	1.03	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705169
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170519A

The QC data in batch 80504 applies to the following samples: 1705169-01A, 1705169-02A, 1705169-03A, 1705169-04A, 1705169-05A, 1705169-06A, 1705169-07A, 1705169-08A

Sample ID **MB-80504** Batch ID: **80504** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS4_170519A** Analysis Date: **5/19/2017 1:29:00 PM** Prep Date: **5/18/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.000800	0.00250								
Arsenic	<0.00200	0.00500								
Barium	<0.00300	0.0100								
Cadmium	<0.000300	0.00100								
Calcium	<0.100	0.300								
Chromium	<0.00200	0.00500								
Cobalt	<0.00300	0.00500								
Lead	<0.000300	0.00100								
Lithium	<0.00500	0.0100								
Magnesium	<0.100	0.300								
Molybdenum	<0.00200	0.00500								
Potassium	<0.100	0.300								
Selenium	<0.00200	0.00500								
Thallium	<0.000500	0.00150								

Sample ID **LCS-80504** Batch ID: **80504** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS4_170519A** Analysis Date: **5/19/2017 1:31:00 PM** Prep Date: **5/18/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.191	0.00250	0.200	0	95.5	80	120			
Arsenic	0.200	0.00500	0.200	0	99.9	80	120			
Barium	0.193	0.0100	0.200	0	96.3	80	120			
Cadmium	0.194	0.00100	0.200	0	96.9	80	120			
Calcium	4.90	0.300	5.00	0	98.1	80	120			
Chromium	0.199	0.00500	0.200	0	99.6	80	120			
Cobalt	0.200	0.00500	0.200	0	99.9	80	120			
Lead	0.190	0.00100	0.200	0	95.1	80	120			
Lithium	0.195	0.0100	0.200	0	97.4	80	120			
Magnesium	5.04	0.300	5.00	0	101	80	120			
Molybdenum	0.189	0.00500	0.200	0	94.5	80	120			
Potassium	5.05	0.300	5.00	0	101	80	120			
Selenium	0.198	0.00500	0.200	0	98.9	80	120			
Thallium	0.194	0.00150	0.200	0	96.8	80	120			

Sample ID **LCSD-80504** Batch ID: **80504** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS4_170519A** Analysis Date: **5/19/2017 1:33:00 PM** Prep Date: **5/18/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.194	0.00250	0.200	0	97.2	80	120	1.67	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705169
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170519A

Sample ID **LCSD-80504** Batch ID: **80504** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS4_170519A** Analysis Date: **5/19/2017 1:33:00 PM** Prep Date: **5/18/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.199	0.00500	0.200	0	99.3	80	120	0.590	15	
Barium	0.194	0.0100	0.200	0	97.1	80	120	0.797	15	
Cadmium	0.196	0.00100	0.200	0	97.9	80	120	1.06	15	
Calcium	4.91	0.300	5.00	0	98.1	80	120	0.054	15	
Chromium	0.200	0.00500	0.200	0	99.9	80	120	0.251	15	
Cobalt	0.198	0.00500	0.200	0	99.1	80	120	0.821	15	
Lead	0.191	0.00100	0.200	0	95.7	80	120	0.672	15	
Lithium	0.197	0.0100	0.200	0	98.3	80	120	0.925	15	
Magnesium	5.09	0.300	5.00	0	102	80	120	0.878	15	
Molybdenum	0.191	0.00500	0.200	0	95.7	80	120	1.25	15	
Potassium	5.09	0.300	5.00	0	102	80	120	0.781	15	
Selenium	0.198	0.00500	0.200	0	99.1	80	120	0.218	15	
Thallium	0.196	0.00150	0.200	0	98.0	80	120	1.26	15	

Sample ID **1705169-03A SD** Batch ID: **80504** TestNo: **SW6020A** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS4_170519A** Analysis Date: **5/19/2017 1:39:00 PM** Prep Date: **5/18/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.00400	0.0125	0	0				0	10	
Arsenic	<0.0100	0.0250	0	0.00926				0	10	
Barium	0.0642	0.0500	0	0.0640				0.340	10	
Cadmium	<0.00150	0.00500	0	0				0	10	
Chromium	<0.0100	0.0250	0	0				0	10	
Cobalt	0.0320	0.0250	0	0.0311				2.83	10	
Lead	<0.00150	0.00500	0	0.000494				0	10	
Lithium	<0.0250	0.0500	0	0.0112				0	10	
Magnesium	13.2	1.50	0	12.8				2.85	10	
Molybdenum	0.0173	0.0250	0	0.0161				7.25	10	
Potassium	1.06	1.50	0	1.02				4.36	10	
Selenium	<0.0100	0.0250	0	0				0	10	
Thallium	<0.00250	0.00750	0	0				0	10	

Sample ID **1705169-03A PDS** Batch ID: **80504** TestNo: **SW6020A** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS4_170519A** Analysis Date: **5/19/2017 1:58:00 PM** Prep Date: **5/18/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.198	0.00250	0.200	0	99.0	80	120			
Arsenic	0.187	0.00500	0.200	0.00926	89.1	80	120			
Barium	0.235	0.0100	0.200	0.0640	85.4	80	120			
Cadmium	0.164	0.00100	0.200	0	82.1	80	120			
Chromium	0.176	0.00500	0.200	0	87.8	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705169
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170519A

Sample ID **1705169-03A PDS** Batch ID: **80504** TestNo: **SW6020A** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS4_170519A** Analysis Date: **5/19/2017 1:58:00 PM** Prep Date: **5/18/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cobalt	0.196	0.00500	0.200	0.0311	82.6	80	120			
Lead	0.168	0.00100	0.200	0.000494	83.6	80	120			
Lithium	0.162	0.0100	0.200	0.0112	75.3	80	120			S
Magnesium	16.5	0.300	5.00	12.8	75.0	80	120			S
Molybdenum	0.177	0.00500	0.200	0.0160	80.4	80	120			
Potassium	6.05	0.300	5.00	1.02	101	80	120			
Selenium	0.172	0.00500	0.200	0	86.1	80	120			
Thallium	0.173	0.00150	0.200	0	86.4	80	120			

Sample ID **1705169-03A MS** Batch ID: **80504** TestNo: **SW6020A** Units: **mg/L**
SampType: **MS** Run ID: **ICP-MS4_170519A** Analysis Date: **5/19/2017 2:00:00 PM** Prep Date: **5/18/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.196	0.00250	0.200	0	97.8	80	120			
Arsenic	0.210	0.00500	0.200	0.00926	100	80	120			
Barium	0.256	0.0100	0.200	0.0640	96.2	80	120			
Cadmium	0.183	0.00100	0.200	0	91.7	80	120			
Calcium	83.5	0.300	5.00	80.8	54.0	80	120			S
Chromium	0.190	0.00500	0.200	0	95.1	80	120			
Cobalt	0.214	0.00500	0.200	0.0311	91.5	80	120			
Lead	0.186	0.00100	0.200	0.000494	93.0	80	120			
Lithium	0.185	0.0100	0.200	0.0112	86.9	80	120			
Magnesium	16.9	0.300	5.00	12.8	82.9	80	120			
Molybdenum	0.200	0.00500	0.200	0.0160	92.0	80	120			
Potassium	6.05	0.300	5.00	1.02	101	80	120			
Selenium	0.192	0.00500	0.200	0	96.1	80	120			
Thallium	0.194	0.00150	0.200	0	97.1	80	120			

Sample ID **1705169-03A MSD** Batch ID: **80504** TestNo: **SW6020A** Units: **mg/L**
SampType: **MSD** Run ID: **ICP-MS4_170519A** Analysis Date: **5/19/2017 2:02:00 PM** Prep Date: **5/18/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.195	0.00250	0.200	0	97.3	80	120	0.498	15	
Arsenic	0.207	0.00500	0.200	0.00926	99.1	80	120	1.04	15	
Barium	0.257	0.0100	0.200	0.0640	96.6	80	120	0.357	15	
Cadmium	0.182	0.00100	0.200	0	90.8	80	120	1.04	15	
Calcium	83.1	0.300	5.00	80.8	46.6	80	120	0.441	15	S
Chromium	0.189	0.00500	0.200	0	94.4	80	120	0.724	15	
Cobalt	0.213	0.00500	0.200	0.0311	90.9	80	120	0.566	15	
Lead	0.185	0.00100	0.200	0.000494	92.1	80	120	0.911	15	
Lithium	0.184	0.0100	0.200	0.0112	86.3	80	120	0.648	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705169
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170519A

Sample ID	1705169-03A MSD	Batch ID:	80504	TestNo:	SW6020A	Units:	mg/L
SampType:	MSD	Run ID:	ICP-MS4_170519A	Analysis Date:	5/19/2017 2:02:00 PM	Prep Date:	5/18/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	17.0	0.300	5.00	12.8	83.7	80	120	0.232	15	
Molybdenum	0.200	0.00500	0.200	0.0160	91.9	80	120	0.141	15	
Potassium	5.97	0.300	5.00	1.02	99.0	80	120	1.26	15	
Selenium	0.190	0.00500	0.200	0	94.8	80	120	1.42	15	
Thallium	0.193	0.00150	0.200	0	96.6	80	120	0.587	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705169
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170519A

The QC data in batch 80508 applies to the following samples: 1705169-01B, 1705169-02B, 1705169-03B, 1705169-04B, 1705169-05B, 1705169-06B, 1705169-07B, 1705169-08B

Sample ID	MB-80508	Batch ID:	80508	TestNo:	SW6020A	Units:	mg/L
SampType:	MBLK	Run ID:	ICP-MS4_170519A	Analysis Date:	5/19/2017 2:36:00 PM	Prep Date:	5/18/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.00500	0.0100								
Molybdenum	<0.00200	0.00500								

Sample ID	LCS-80508	Batch ID:	80508	TestNo:	SW6020A	Units:	mg/L
SampType:	LCS	Run ID:	ICP-MS4_170519A	Analysis Date:	5/19/2017 2:38:00 PM	Prep Date:	5/18/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.189	0.0100	0.200	0	94.3	80	120			
Molybdenum	0.185	0.00500	0.200	0	92.7	80	120			

Sample ID	LCSD-80508	Batch ID:	80508	TestNo:	SW6020A	Units:	mg/L
SampType:	LCSD	Run ID:	ICP-MS4_170519A	Analysis Date:	5/19/2017 2:40:00 PM	Prep Date:	5/18/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.188	0.0100	0.200	0	93.9	80	120	0.519	15	
Molybdenum	0.186	0.00500	0.200	0	92.9	80	120	0.196	15	

Sample ID	1705169-03B SD	Batch ID:	80508	TestNo:	SW6020A	Units:	mg/L
SampType:	SD	Run ID:	ICP-MS4_170519A	Analysis Date:	5/19/2017 2:46:00 PM	Prep Date:	5/18/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.0250	0.0500	0	0.0106				0	10	
Molybdenum	0.0164	0.0250	0	0.0160				2.65	10	

Sample ID	1705169-03B PDS	Batch ID:	80508	TestNo:	SW6020A	Units:	mg/L
SampType:	PDS	Run ID:	ICP-MS4_170519A	Analysis Date:	5/19/2017 3:06:00 PM	Prep Date:	5/18/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.182	0.0100	0.200	0.0106	85.5	80	120			
Molybdenum	0.196	0.00500	0.200	0.0160	90.0	80	120			

Sample ID	1705169-03B MS	Batch ID:	80508	TestNo:	SW6020A	Units:	mg/L
SampType:	MS	Run ID:	ICP-MS4_170519A	Analysis Date:	5/19/2017 3:08:00 PM	Prep Date:	5/18/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Lithium	0.187	0.0100	0.200	0.0106	88.4	80	120			
Dissolved Molybdenum	0.205	0.00500	0.200	0.0160	94.4	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705169
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170519A

Sample ID	1705169-03B MSD	Batch ID:	80508	TestNo:	SW6020A	Units:	mg/L
SampType:	MSD	Run ID:	ICP-MS4_170519A	Analysis Date:	5/19/2017 3:10:00 PM	Prep Date:	5/18/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Lithium	0.185	0.0100	0.200	0.0106	87.2	80	120	1.20	15	
Dissolved Molybdenum	0.201	0.00500	0.200	0.0160	92.8	80	120	1.60	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705169
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170522A

The QC data in batch 80504 applies to the following samples: 1705169-01A, 1705169-02A, 1705169-03A, 1705169-04A, 1705169-05A, 1705169-06A, 1705169-07A, 1705169-08A

Sample ID **MB-80504** Batch ID: **80504** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS4_170522A** Analysis Date: **5/22/2017 12:42:00 PM** Prep Date: **5/18/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	<0.000300	0.00100								
Boron	<0.0100	0.0300								
Sodium	<0.100	0.300								

Sample ID **LCS-80504** Batch ID: **80504** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS4_170522A** Analysis Date: **5/22/2017 12:44:00 PM** Prep Date: **5/18/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	0.194	0.00100	0.200	0	97.2	80	120			
Boron	0.198	0.0300	0.200	0	99.0	80	120			
Sodium	4.93	0.300	5.00	0	98.6	80	120			

Sample ID **LCSD-80504** Batch ID: **80504** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS4_170522A** Analysis Date: **5/22/2017 12:46:00 PM** Prep Date: **5/18/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	0.196	0.00100	0.200	0	98.1	80	120	0.884	15	
Boron	0.195	0.0300	0.200	0	97.3	80	120	1.69	15	
Sodium	4.93	0.300	5.00	0	98.7	80	120	0.055	15	

Sample ID **1705169-03A SD** Batch ID: **80504** TestNo: **SW6020A** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS4_170522A** Analysis Date: **5/22/2017 12:52:00 PM** Prep Date: **5/18/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	1.14	1.50	0	1.16				1.92	10	
Calcium	80.6	15.0	0	81.2				0.792	10	
Sodium	87.5	15.0	0	87.5				0.054	10	

Sample ID **1705169-03A PDS** Batch ID: **80504** TestNo: **SW6020A** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS4_170522A** Analysis Date: **5/22/2017 1:13:00 PM** Prep Date: **5/18/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	3.15	0.300	2.00	1.16	99.6	80	120			
Calcium	130	3.00	50.0	81.2	97.0	80	120			
Sodium	137	3.00	50.0	87.5	100	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705169
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170522A

Sample ID 1705169-03A MS	Batch ID: 80504	TestNo: SW6020A	Units: mg/L
SampType: MS	Run ID: ICP-MS4_170522A	Analysis Date: 5/22/2017 1:14:00 PM	Prep Date: 5/18/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	1.31	0.300	0.200	1.16	75.1	80	120			S
Sodium	89.9	3.00	5.00	87.5	49.3	80	120			S

Sample ID 1705169-03A MSD	Batch ID: 80504	TestNo: SW6020A	Units: mg/L
SampType: MSD	Run ID: ICP-MS4_170522A	Analysis Date: 5/22/2017 1:16:00 PM	Prep Date: 5/18/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	1.36	0.300	0.200	1.16	99.5	80	120	3.65	15	
Sodium	90.3	3.00	5.00	87.5	57.0	80	120	0.426	15	S

Sample ID 1705169-03A SD	Batch ID: 80504	TestNo: SW6020A	Units: mg/L
SampType: SD	Run ID: ICP-MS4_170522A	Analysis Date: 5/22/2017 2:09:00 PM	Prep Date: 5/18/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	<0.00150	0.00500	0	0				0	10	

Sample ID 1705169-03A PDS	Batch ID: 80504	TestNo: SW6020A	Units: mg/L
SampType: PDS	Run ID: ICP-MS4_170522A	Analysis Date: 5/22/2017 2:19:00 PM	Prep Date: 5/18/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	0.198	0.00100	0.200	0	98.9	80	120			

Sample ID 1705169-03A MS	Batch ID: 80504	TestNo: SW6020A	Units: mg/L
SampType: MS	Run ID: ICP-MS4_170522A	Analysis Date: 5/22/2017 2:21:00 PM	Prep Date: 5/18/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	0.189	0.00100	0.200	0	94.5	80	120			

Sample ID 1705169-03A MSD	Batch ID: 80504	TestNo: SW6020A	Units: mg/L
SampType: MSD	Run ID: ICP-MS4_170522A	Analysis Date: 5/22/2017 2:23:00 PM	Prep Date: 5/18/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	0.193	0.00100	0.200	0	96.4	80	120	2.04	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705169
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_170518A

The QC data in batch 80513 applies to the following samples: 1705169-01C, 1705169-02C, 1705169-03C, 1705169-04C, 1705169-05C, 1705169-06C, 1705169-07C, 1705169-08C

Sample ID **MB-80513** Batch ID: **80513** TestNo: **M2320 B** Units: **mg/L @ pH 4.24**
SampType: **MBLK** Run ID: **TITRATOR_170518A** Analysis Date: **5/18/2017 9:45:00 AM** Prep Date: **5/18/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0								
Alkalinity, Total (As CaCO3)	<20.0	20.0								

Sample ID **LCS-80513** Batch ID: **80513** TestNo: **M2320 B** Units: **mg/L @ pH 4.21**
SampType: **LCS** Run ID: **TITRATOR_170518A** Analysis Date: **5/18/2017 9:49:00 AM** Prep Date: **5/18/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	50.1	20.0	50.00	0	100	74	129			

Sample ID **1705147-01B-DUP** Batch ID: **80513** TestNo: **M2320 B** Units: **mg/L @ pH 4.52**
SampType: **DUP** Run ID: **TITRATOR_170518A** Analysis Date: **5/18/2017 11:10:00 AM** Prep Date: **5/18/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	229	20.0	0	226.4				1.27	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	229	20.0	0	226.4				1.27	20	

Sample ID **1705169-03C-DUP** Batch ID: **80513** TestNo: **M2320 B** Units: **mg/L @ pH 4.53**
SampType: **DUP** Run ID: **TITRATOR_170518A** Analysis Date: **5/18/2017 12:54:00 PM** Prep Date: **5/18/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	258	20.0	0	258.4				0	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	258	20.0	0	258.4				0	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

2609 North River Road, Port Allen, Louisiana 70767
(800) 401-4277 -- FAX (225) 381-2996

ARS International, LLC

Laboratory Analysis Report

ARS1-17-01447

Prepared for:

B-Environmental

Kevin Baros
1606 East Brazos Street
Suite D
Victoria, TX 77901

dbenviro@suddenlinkmail.com; cbenviro@suddenlinkmail.com
swbenviro@suddenlinkmail.com

Phone: 361-572-8224
Fax: 361-572-4115

Project Manager Review

Management Review

Notes: ARS International, LLC assumes no liability for the use or the interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

Contact Person: Questions regarding this analytical report should be addressed to:

Project Manager
ProjectManagers@amrad.com

Phone: 225.381.2991
Fax: 225.381.2996

LELAP Cert# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01447
Client Sample ID: S171361013 (BATCH 55339)
Sample Collection Date: 05/15/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01447-001
Date Received: 05/23/17
Report Date: 06/16/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CDRL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.293	0.146	0.144	0.054	NP	Q	pCi/L	ARS-010/EPA 903.0/904.0	06/14/17 7:44	SCAUSEY	104%
Ra-228	0.472	0.716	1.212	0.561	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/07/17 12:30	SCAUSEY	93%

Project Manager Review

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01447
Client Sample ID: S171361016 (BATCH 55339)
Sample Collection Date: 05/15/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01447-002
Date Received: 05/23/17
Report Date: 06/16/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CDRL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.151	0.126	0.184	0.075	NP	U,Q	pCi/L	ARS-010/EPA 903.0/904.0	06/14/17 7:44	SCAUSEY	97%
Ra-228	1.300	0.854	1.301	0.606	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/07/17 12:30	SCAUSEY	88%

Project Manager Review

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01447
Client Sample ID: S171361017 (BATCH 55339)
Sample Collection Date: 05/15/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01447-003
Date Received: 05/23/17
Report Date: 06/16/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CDRL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.100	0.126	0.207	0.084	NP	U,Q	pCi/L	ARS-010/EPA 903.0/904.0	06/14/17 7:44	SCAUSEY	106%
Ra-228	0.514	0.765	1.292	0.601	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/07/17 12:30	SCAUSEY	92%

Project Manager Review

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01447
Client Sample ID: S171361018 (BATCH 55339)
Sample Collection Date: 05/15/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01447-004
Date Received: 05/23/17
Report Date: 06/16/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CDRL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.301	0.161	0.184	0.073	NP	Q	pCi/L	ARS-010/EPA 903.0/904.0	06/14/17 7:44	SCAUSEY	99%
Ra-228	0.775	0.812	1.330	0.620	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/07/17 12:30	SCAUSEY	90%

Project Manager Review

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01447
Client Sample ID: S171361019 (BATCH 55339)
Sample Collection Date: 05/15/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01447-005
Date Received: 05/23/17
Report Date: 06/16/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CDRL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.396	0.178	0.170	0.066	NP	Q	pCi/L	ARS-010/EPA 903.0/904.0	06/14/17 7:44	SCAUSEY	105%
Ra-228	1.130	0.767	1.173	0.544	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/07/17 12:30	SCAUSEY	96%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01445
Client Sample ID: S171361020 (BATCH 55339)
Sample Collection Date: 05/15/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01445-001
Date Received: 05/23/17
Report Date: 06/19/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CDRL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.368	0.165	0.147	0.055	NP		pCi/L	ARS-010/EPA 903.0/904.0	06/16/17 9:29	SCAUSEY	97%
Ra-228	0.633	0.697	1.145	0.531	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/09/17 12:32	SCAUSEY	91%

. Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01445
Client Sample ID: S171361021 (BATCH 55339)
Sample Collection Date: 05/15/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01445-002
Date Received: 05/23/17
Report Date: 06/19/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CDRL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.120	0.116	0.177	0.072	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/16/17 9:29	SCAUSEY	107%
Ra-228	-0.201	0.628	1.163	0.541	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/09/17 12:32	SCAUSEY	100%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01445
Client Sample ID: S171361026 (BATCH 55339)
Sample Collection Date: 05/15/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01445-003
Date Received: 05/23/17
Report Date: 06/19/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CDRL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.257	0.182	0.251	0.102	NP		pCi/L	ARS-010/EPA 903.0/904.0	06/16/17 9:29	SCAUSEY	82%
Ra-228	0.899	0.880	1.430	0.665	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/09/17 12:32	SCAUSEY	77%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

QC Results Report

Sample Delivery Group: ARS1-17-01440;1447

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-01065	LCSD	RA-226	30.548	4.919	0.098	27.562	N/A	pCi/L	ARS-010/EPA 903	6/14/17 9:43	SC	111	75%-125%
ARS1-B17-01065	LCS	RA-228	34.618	5.816	1.169	39.784	N/A	pCi/L	ARS-010/EPA 904	6/7/17 14:30	SC	87	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-01065	MBL	RA-226	0.194	0.095	0.096	NA		pCi/L	ARS-010/EPA 903	6/14/17 9:43	SC
ARS1-B17-01065	MBL	RA-228	-0.002	0.394	0.709	NA	U	pCi/L	ARS-010/EPA 904	6/7/17 14:30	SC

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-01065	LCS	RA-226	30.548	4.919	36.562	5.864	N/A	pCi/L	ARS-010/EPA 903	6/14/17 9:43	SC	0.56	< 1
ARS1-B17-01065	LCSD	RA-228	34.618	5.816	26.300	4.492	N/A	pCi/L	ARS-010/EPA 904	6/7/17 14:30	SC	0.81	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-01065	LCS	RA-226	30.548	4.919	36.562	5.864	N/A	pCi/L	ARS-010/EPA 903	6/14/17 9:43	SC	0.79	< 3
ARS1-B17-01065	LCSD	RA-228	34.618	5.816	26.300	4.492	N/A	pCi/L	ARS-010/EPA 904	6/7/17 14:30	SC	1.13	< 3

Matrix Spike

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery(%)	MS Acceptance Range
ARS1-B17-01065	MS	Ra-226	72.089	11.565	0.139	56.066	N/A	pCi/L	ARS-010/EPA 903	6/14/17 9:43	SC	129	60%-140%
ARS1-B17-01065	MS	Ra-228	40.905	6.890	1.560	52.566	N/A	pCi/L	ARS-010/EPA 904	6/7/17 14:30	SC	78	60%-140%
ARS1-B17-01065	MSD	Ra-226	59.961	9.641	0.154	55.743	N/A	pCi/L	ARS-010/EPA 903	6/14/17 9:43	SC	108	60%-140%
ARS1-B17-01065	MSD	Ra-228	39.907	6.747	1.590	52.514	N/A	pCi/L	ARS-010/EPA 904	6/7/17 14:30	SC	76	60%-140%

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

INTERNATIONAL

QC Results Report

Sample Delivery Group: ARS1-17-01445

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-01106	LCS	RA-226	27.814	4.480	0.098	27.723	N/A	pCi/L	ARS-010/EPA 903	6/16/17 11:29	SC	100	75%-125%
ARS1-B17-01106	LCS	RA-228	32.901	5.513	1.063	39.784	N/A	pCi/L	ARS-010/EPA 904	6/9/17 14:31	SC	83	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-01106	MBL	RA-226	0.082	0.065	0.089	NA	U	pCi/L	ARS-010/EPA 903	6/16/17 11:29	SC
ARS1-B17-01106	MBL	RA-228	-0.087	0.371	0.681	NA	U	pCi/L	ARS-010/EPA 904	6/9/17 14:31	SC

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-01106	LCSD	RA-226	27.814	4.480	35.081	5.636	N/A	pCi/L	ARS-010/EPA 903	6/16/17 11:29	SC	0.72	< 1
ARS1-B17-01106	LCSD	RA-228	32.901	5.513	34.717	5.792	N/A	pCi/L	ARS-010/EPA 904	6/9/17 14:31	SC	0.16	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-01106	LCSD	RA-226	27.814	4.480	35.081	5.636	N/A	pCi/L	ARS-010/EPA 903	6/16/17 11:29	SC	1.01	< 3
ARS1-B17-01106	LCSD	RA-228	32.901	5.513	34.717	5.792	N/A	pCi/L	ARS-010/EPA 904	6/9/17 14:31	SC	0.23	< 3

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

ARS INTERNATIONAL
2609 North River Road • Port Allen, Louisiana 70767
1 (800) 401-4277 • Fax (225) 381-2996

Notes (Case Narrative):

Comments:

1.0) All MDA/MDC values are calculated on a sample specific basis.
2.0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.
3.0) Data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.
4.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix. Modified analyses are indicated by the subsequent addition of "m" to the procedure number (i.e. 900.0M).
5.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than the actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
6.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228 (Gamma Spectroscopy only).
7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234 (Gamma Spectroscopy only).
8.0) All gamma spectroscopy was performed utilizing high purity germanium detectors (**HPGe**).
9.0) ARS makes every attempt to match sample density to calibrated density; however, in some cases, it is not practical or possible to do so and data results may be affected (Gamma Spectroscopy only).
10.0) Gamma spectroscopy results are calculated values based on the **ORTEC®** GammaVision ENV32 Analysis Engine.
11.0) ACLASS DOD and ISO 17025 certification applies only to the following analytes and methods: Gross Alpha and Gross Beta (EPA 900, SM7110B&C, SW846 9310); Radium 226 (EPA 903, EPA 903.1, SM 7500 Ra-B, SW846 9315); Radium 228 (EPA 904, SM 7500 Ra-B SW846 9320); Iodine-131(EPA 901.1); Uranium by ICPMS (EPA 200.8); Strontium 89/90 (EPA 905, Elchrom SRW01, HASL 300 Sr-03-RC); Tritium (EPA 906, EPA 906M); Gamma Emitters (EPA 901.1, SM7120B, HASL 300 Ga-01-R); Americium-241, Curium 242/244, Plutonium 239/240 and 241, Thorium 228/230/232, Uranium 234/233 and 238 (Eichrom ACW03 VBS); Lead 210 (HASL 300 Pb-01-RC, Eichrom OTW01); Polonium 210 (HASL 300 Po-01-RC, HASL 300 Po-02-RC); Technetium-99 (Eichrom TCW02, Eichrom TCS01M).

Method References:

1.0) **EPA 600/4-80-032**; Prescribed Procedures for the Measurements of Radioactivity in Drinking Water, August 1980.
2.0) **Standard Methods for the Examination of Water and Wastewater** (On-Line Edition)
3.0) **EPA SW-846**; Test Methods for Evaluating Solid Waste, (On-Line edition)
4.0) **EPA 600/4/79-020**; Methods for Chemical Analysis of Water and Waste, March 1983.
5.0) **HASL 300**; The Procedures Manual of the Environmental Measurements Laboratory, Volume I, 28th Edition February, 1997.

Definitions:

CRDL	Contract Required Detection Limit
CSU	Combined Standard Uncertainty
DLC	Decision Level Concentration (ANSI N42.23) or critical level
DO	Duplicate Original
DUP	Method Duplicate
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
MDA	Minimum Detectable Activity
MDC	(Minimum Detectable Concentration) minimum concentration of the analyte that ARS can detect utilizing the specific analysis
MBL	Method Blank
MS/MSD	Matrix Spike/Matrix Spike Duplicate
N/A	Not Applicable
NP	Not Provided
NR	Not Referenced
LOD	Limit of Detection
LOQ	Limit of Quantitation

Data Qualifiers:

B	The analyte is found in both the associated method blank and the sample. This flag indicates probable blank contamination.
D	Sample analysis accomplished through dilution.
J	The reported result is an estimated value above the limit of detection but outside of quantitation range (e.g., matrix interference was observed).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).
U	Activity is below the MDC, MDA, MDL, or LOD
N	The analyte is a tentatively identified compound using mass spectrometry or any non-customer requested compounds that are tentatively identified.
*	LCS/LCSD or MS/MSD fails RPD criteria.
S	Spike
SC	Subcontracted out to another qualified laboratory
H	Holding time exceeded

ARS INTERNATIONAL
2609 North River Road • Port Allen, Louisiana 70767
1 (800) 401-4277 • Fax (225) 381-2996

Notes (Case Narrative):

Comments:

1.0) All MDA/MDC values are calculated on a sample specific basis.
2.0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.
3.0) Data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.
4.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix. Modified analyses are indicated by the subsequent addition of "m" to the procedure number (i.e. 900.0M).
5.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than the actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
6.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228 (Gamma Spectroscopy only).
7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234 (Gamma Spectroscopy only).
8.0) All gamma spectroscopy was performed utilizing high purity germanium detectors (**HPGe**).
9.0) ARS makes every attempt to match sample density to calibrated density; however, in some cases, it is not practical or possible to do so and data results may be affected (Gamma Spectroscopy only).
10.0) Gamma spectroscopy results are calculated values based on the **ORTEC®** GammaVision ENV32 Analysis Engine.
11.0) ACLASS DOD and ISO 17025 certification applies only to the following analytes and methods: Gross Alpha and Gross Beta (EPA 900, SM7110B&C, SW846 9310); Radium 226 (EPA 903, EPA 903.1, SM 7500 Ra-B, SW846 9315); Radium 228 (EPA 904, SM 7500 Ra-B SW846 9320); Iodine-131(EPA 901.1); Uranium by ICPMS (EPA 200.8); Strontium 89/90 (EPA 905, Eichrom SRW01, HASL 300 Sr-03-RC); Tritium (EPA 906, EPA 906M); Gamma Emitters (EPA 901.1, SM7120B, HASL 300 Ga-01-R); Americium-241, Curium 242/244, Plutonium 239/240 and 241, Thorium 228/230/232, Uranium 234/233 and 238 (Eichrom ACW03 VBS); Lead 210 (HASL 300 Pb-01-RC, Eichrom OTW01); Polonium 210 (HASL 300 Po-01-RC, HASL 300 Po-02-RC); Technetium-99 (Eichrom TCW02, Eichrom TCS01M).

Method References:

1.0) **EPA 600/4-80-032**; Prescribed Procedures for the Measurements of Radioactivity in Drinking Water, August 1980.
2.0) **Standard Methods for the Examination of Water and Wastewater** (On-Line Edition)
3.0) **EPA SW-846**; Test Methods for Evaluating Solid Waste, (On-Line edition)
4.0) **EPA 600/4/79-020**; Methods for Chemical Analysis of Water and Waste, March 1983.
5.0) **HASL 300**; The Procedures Manual of the Environmental Measurements Laboratory, Volume I, 28th Edition February, 1997.

Definitions:

CRDL	Contract Required Detection Limit
CSU	Combined Standard Uncertainty
DLC	Decision Level Concentration (ANSI N42.23) or critical level
DO	Duplicate Original
DUP	Method Duplicate
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
MDA	Minimum Detectable Activity
MDC	(Minimum Detectable Concentration) minimum concentration of the analyte that ARS can detect utilizing the specific analysis
MBL	Method Blank
MS/MSD	Matrix Spike/Matrix Spike Duplicate
N/A	Not Applicable
NP	Not Provided
NR	Not Referenced
LOD	Limit of Detection
LOQ	Limit of Quantitation

Data Qualifiers:

B	The analyte is found in both the associated method blank and the sample. This flag indicates probable blank contamination.
D	Sample analysis accomplished through dilution.
J	The reported result is an estimated value above the limit of detection but outside of quantitation range (e.g., matrix interference was observed).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).
U	Activity is below the MDC, MDA, MDL, or LOD
N	The analyte is a tentatively identified compound using mass spectrometry or any non-customer requested compounds that are tentatively identified.
*	LCS/LCSD or MS/MSD fails RPD criteria.
S	Spike
SC	Subcontracted out to another qualified laboratory
H	Holding time exceeded

LELAP Cert# 01949 ***NELAP Cert# E87558***

ARS-059-010
Revision: 9.1
Revision Date: 03-14-2017

ronmental

Chain of Custody Recor

Batch # 55339

TEMP UN-C: 5.1 | Page 1 of 2

THERM ID# 3 | TEMP Corr: 4.9

Customer / Report Information

Name: Coleto Creek Power
Attention: Rick Coleman
Address:

Billing Information ☒ Check box if Billing is the same as Report Information

Address:
Attention: PO#:
Project: CCR Sampling
Comments:

Phone: 361-788-5145 FAX:
EMAIL: Richard.Coleman@cleanay.com

Requested Analysis (B C A E D F) | Completed By Laboratory

Sample Information			Matrix	Container																Custody Seals Present / Intact / LAB Sample Number
Collected By:			G=Grab C=Composite	DW - Drinking H20 S - Solid WW - Waste H20 SL - Sludge L - Liquid W - Water	TYPE	NUMBER	SIZE	Preservative	Metals*	Cl, F*, SO4	pH	TDS	Ca, Mg, Hardness	Alk: Tot, Carb, Bi Carb	Br	Diss Li + Mo			
Client / Field Sample ID	Collected Date	Collected Time																		
BV-15	5-15-17	957	G	W	P	6	1L 500 250	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3	X	X	X	X	X	X	X	X			S171361013
mw-4		908						☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3											S171361016
mw-8		1058						☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3											S171361017
Dup								☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3											S171361018
MS-mw8		1058						☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3											
MSD-mw8		1058						☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3											
BV-19		1378						☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3											S171361019

Required Turnaround: ☑ Routine (6-10 Business Days) Expedite / Rush: ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business Days ☑ 5 Business Days ☐ Other _____ REMARKS:

Surcharge will apply to RUSH TAT Authorized By:

Container Type: P=Plastic, G=Glass, V=VOA, O=Other | Carrier ID :

Relinquished By:		Date: 5-15-17	Time: 1655	Received By:		Date: 5/15/17	Time: 1615		
Relinquished By:		Date:	Time:	Received By:		Date:	Time:		
Relinquished By:		Date:	Time:	Received By:		Date:	Time:		

1606 E Brazos Suite D, Victoria, Texas 77901 Ph. (361) 572-8224 Fax (361) 572-4115 Toll Free 1-800-460-8223 Form #1000.0-2 REV 1.2 Email: kbenviro@suddenlinkmail.com www.benvironmental.net

Fluoride: 0.25 mg/L ; Metals: B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, Mg, K, Na, + Hg

B - Environmental

Chain of Custody Record

Batch # 55339

TEMP UN-C: 5.1 | Page 2 of 2

THERM ID# 3 | TEMP Corr: 4.9

Customer / Report Information

Name: Coleto Creek Power
Attention: Rick Coleman
Address:

Billing Information X Check box if Billing is the same as Report Information

Address:
Attention: PO#:
Project:
Comments: CCR Sampling

Phone: 361-788-5445 FAX:
EMAIL: Richard.Coleman@dynegy.com

Requested Analysis (A B C D E F) | Completed By Laboratory

Sample Information				Matrix	Container																Custody Seals Present / Intact / LAB Sample Number
Collected By:			G=Grab C=Composite	DW - Drinking H20; S - Solid; WW - Waste H20; SL - Sludge; L - Liquid; W - Water	TYPE	NUMBER	SIZE	Preservative	Metals*	Cl, F, SO4	PH	Ra226+Ra228	Alk; Tot Carb	Bi Carb	Diss Ligmin	TDS				
Client / Field Sample ID	Collected Date	Collected Time																			
BV-10	5-15-17	1412	G	W	P	6	L 500/250	H2SO4, HNO3, H3PO4, NaOH, ICE, HCL, Na2SO3	X	X	X	X	X	X	X	X					S171361020
BV-1	5-15-17	1446																			S171361021
Blank	5-15-17	1455																			S171361026

Required Turnaround: ☑ Routine (6-10 Business Days) Expedite / Rush: ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business Days ☑ 5 Business Days ☐ Other _____ REMARKS:

Surcharge will apply to RUSH TAT Authorized By: Container Type: P=Plastic, G=Glass, V=VOA, O=Other Carrier ID :

Relinquished By:		Date:	5-15-17	Time:	1615	Received By:		Date:	5/15/17	Time:	1615
Relinquished By:		Date:		Time:		Received By:		Date:		Time:	
Relinquished By:		Date:		Time:		Received By:		Date:		Time:	

1606 E Brazos Suite D, Victoria, Texas 77901 Ph. (361) 572-8224 Fax (361) 572-4115 Toll Free 1-800-460-8223 Form #1000.0-2 REV 1.2 Email: kbenviro@suddenlinkmail.com www.benvironmental.net

Fluoride: 0.25 mg/L; Metals: B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Ti, Mg, K, Na, & Hg

BatchNo: 55420

SAMPLE REPORT

T104704328-17-14

Business

Coleto Creek Power - R Coleman
PO Box 8
Fannin TX 77960
Att: Rick Coleman

Laboratory

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901
ph. 361-572-8224

Reference Information

Project: CCR Sampling
Printed: Friday, June 23, 2017

Re: Coleto Creek Power - R Coleman

Dear: Rick Coleman

Attached are the results for sample(s) received on 5/16/2017

The analytical results relate only to the samples tested.
All supporting quality data meets the requirements of NELAC unless noted in the case narrative section of the report.

This report contains 40 pages (including the cover page)

If you have any questions concerning this report, please do not hesitate to call (361) 572-8224 or Fax us at (361) 572-4115

Respectfully Submitted,

Kevin Baros

Laboratory Director

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55420

Batch No: 55420

Sample Receipt Checklist

Date Received: 5/16/2017

Project	CCR Sampling	Received By:	Vahrenkamp
Login completed by:	Vahrenkamp	5/16/2017	
	Signature	LoginDate:	

Carrier Name: Walk In

Shipping container/cooler in good condition?	☑ YES	☐ NO	☐ Not Present
Custody seals intact on shipping container/cooler?	☐ YES	☐ NO	☑ Not Present
Custody seals intact on sample bottles?	☐ YES	☐ NO	☑ Not Present
Chain of Custody present?	☑ YES	☐ NO	
Chain of Custody signed when relinquished and received	☑ YES	☐ NO	
Chain of Custody agrees with sample labels?	☑ YES	☐ NO	
Samples in proper container/bottles?	☑ YES	☐ NO	
Sample containers intact?	☑ YES	☐ NO	
Sufficient sample volume for indicated tests?	☑ YES	☐ NO	
All samples received within holding times?	☑ YES	☐ NO	
Container/Temp Blank - temperature in compliance?	☑ YES	☐ NO	>0 <6 °C On Ice
Water - VOA vials have zero headspace? Bubble < 6mm?	☐ YES	☐ NO	☑ No VOA Vials submitted
Water - pH acceptable upon receipt?	☑ YES	☐ NO	☐ Not Applicable

*TEMP 5.3/5.1 | pH Adjusted? No | Checked By L. Vahrenkamp

Any No and/or N/A (not applicable) response must be detailed in the comments section below.

Client contacted		PersonContacted	
Contacted by:		Date Contacted:	

Regarding:

Comments:

Therm #3. HNO3 Lot # 2-42-12. pH Paper Lot # 2-25-6.

Corrective Action:

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55420

Sample Report Information

Sample ID:	S171361650	Client ID:	MW-7	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #7
Notes:

Batch No: 55420
Sampled: 5/16/2017 11:17 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	91	mg/L	EPA 300	K Baros	5/18/2017 4:41	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	252	mg/L	SM 2320 B		5/24/2017 11:46	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/24/2017 11:46	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	252	mg/L	SM 2320 B		5/24/2017 11:46	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.59	mg/L	EPA 300	K Baros	5/18/2017 4:41	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.1	SU	SM 4500-H+B	C Watts	5/16/2017 17:20					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	562	mg/L	SM2540C	C Watts	5/22/2017 17:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			5/22/2017 15:42					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	74	mg/L	EPA 300	K Baros	5/18/2017 4:41	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			6/9/2017 6:26					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55420

Sample Report Information

Sample ID:	S17136165A	Client ID:	MW-6	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #6
Notes:

Batch No: 55420
Sampled: 5/16/2017 10:30 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	70	mg/L	EPA 300	K Baros	5/18/2017 4:41	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	173	mg/L	SM 2320 B		5/24/2017 11:52	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/24/2017 11:52	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	173	mg/L	SM 2320 B		5/24/2017 11:52	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.36	mg/L	EPA 300	K Baros	5/18/2017 4:41	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.18	SU	SM 4500-H+B	C Watts	5/16/2017 17:20					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	506	mg/L	SM2540C	C Watts	5/22/2017 17:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			5/22/2017 15:44					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	107	mg/L	EPA 300	K Baros	5/18/2017 4:41	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			6/9/2017 6:26					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55420

Sample Report Information

Sample ID:	S17136165B	Client ID:	BV-5	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV-5
Notes:

Batch No: 55420
Sampled: 5/16/2017 9:05 AM

Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	107	mg/L	EPA 300	K Baros	5/18/2017 4:41	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	351	mg/L	SM 2320 B		5/24/2017 12:05	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/24/2017 12:05	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	351	mg/L	SM 2320 B		5/24/2017 12:05	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.55	mg/L	EPA 300	K Baros	5/18/2017 4:41	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.03	SU	SM 4500-H+B	C Watts	5/16/2017 17:20					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	832	mg/L	SM2540C	C Watts	5/22/2017 17:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			5/22/2017 15:46					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	145	mg/L	EPA 300	K Baros	5/18/2017 4:41	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			6/9/2017 6:26					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55420

Sample Report Information

Sample ID:	S17136165C	Client ID:	MW-11	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #11
Notes:

Batch No: 55420
Sampled: 5/16/2017 1:10 PM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	52	mg/L	EPA 300	K Baros	5/18/2017 4:41	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	148	mg/L	SM 2320 B		5/24/2047 12:11	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/24/2017 12:11	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	148	mg/L	SM 2320 B		5/24/2017 12:11	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.85	mg/L	EPA 300	K Baros	5/18/2017 4:41	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.49	SU	SM 4500-H+B	C Watts	5/16/2017 17:20					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	362	mg/L	SM2540C	C Watts	5/23/2017 16:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			5/22/2017 15:48					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	58	mg/L	EPA 300	K Baros	5/18/2017 4:41	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			6/9/2017 6:26					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55420

Sample Report Information

Sample ID:	S17136165D	Client ID:	PS-3	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: PS-3
Notes:

Batch No: 55420
Sampled: 5/16/2017 1:44 PM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	45	mg/L	EPA 300	K Baros	5/18/2017 4:41	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	158	mg/L	SM 2320 B		5/24/2017 12:17	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/24/2017 12:17	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	158	mg/L	SM 2320 B		5/24/2017 12:17	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.95	mg/L	EPA 300	K Baros	5/18/2017 4:41	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.47	SU	SM 4500-H+B	C Watts	5/16/2017 17:20					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	330	mg/L	SM2540C	C Watts	5/23/2017 16:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			5/22/2017 15:50					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	33	mg/L	EPA 300	K Baros	5/18/2017 4:41	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			6/9/2017 6:26					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55420

Sample Report Information

Sample ID:	S17136165E	Client ID:	MW-5	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #5
Notes:

Batch No: 55420
Sampled: 5/16/2017 2:15 PM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	139	mg/L	EPA 300	K Baros	5/18/2017 4:41	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	288	mg/L	SM 2320 B		5/24/2017 12:28	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/24/2017 12:28	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	288	mg/L	SM 2320 B		5/24/2017 12:28	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.5	mg/L	EPA 300	K Baros	5/18/2017 4:41	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7	SU	SM 4500-H+B	C Watts	5/16/2017 17:20					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	848	mg/L	SM2540C	C Watts	5/23/2017 16:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	c	#			5/22/2017 15:52					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	183	mg/L	EPA 300	K Baros	5/18/2017 4:41	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	c	#			6/9/2017 6:26					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55420

Sample Report Information

Sample ID:	S17136165F	Client ID:	Dup	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: Dup
Notes:

Batch No: 55420
Sampled: 5/16/2017 12:00 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	70	mg/L	EPA 300	K Baros	5/18/2017 4:41	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	170	mg/L	SM 2320 B		5/24/2017 12:34	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/24/2017 12:34	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	170	mg/L	SM 2320 B		5/24/2017 12:34	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.36	mg/L	EPA 300	K Baros	5/18/2017 4:41	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.31	SU	SM 4500-H+B	C Watts	5/16/2017 17:20					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	492	mg/L	SM2540C	C Watts	5/23/2017 16:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			5/22/2017 15:54					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	108	mg/L	EPA 300	K Baros	5/18/2017 4:41	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			6/9/2017 6:26					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55420

QA Summary Report

Parameter	ID	Result	Ref Value	Amt Added	LOQ	Qualifer	Control	Flag	Comments
.Method Blank									
.- Chloride, IC	Q171461202	<1mg/L	0		1		1		Blank Acceptable.
5/17/2017 13:27									
Fluoride, IC	Q171461202	<0.25mg/L	0		0.25		0.25		Blank Acceptable.
5/17/2017 13:27									
Solids, Total Dissolved	Q171511037	<25mg/L	0		10		25		Blank Acceptable.
5/23/2017 16:00									
Solids, Total Dissolved	Q171431400	<25mg/L	0		10		25		Blank Acceptable.
5/22/2017 17:00									
Sulfate, IC	Q171461202	<1mg/L	0		1		1		Blank Acceptable.
5/17/2017 13:27									
Duplicate									
pH (Standard Units)	Q171381151	7.11SU	7.1		2	0.1%	20		Duplicate RPD Acceptable.
5/16/2017 17:20									
Solids, Total Dissolved	Q171431403	4520mg/L	4550		10	0.7%	20		Duplicate RPD Acceptable.
5/22/2017 17:00									
Solids, Total Dissolved	Q171511039	464mg/L	464		10	0.0%	20		Duplicate RPD Acceptable.
5/23/2017 16:00									
Laboratory Control Standard									
.- Chloride, IC	Q171461203	25.4mg/L	25		1	101.6%	80 - 120		Standard Recovery Acceptable.
5/17/2017 14:05						1.6%	20		Standard RPD Acceptable.
Fluoride, IC	Q171461203	2.07mg/L	2		0.25	103.5%	80 - 120		Standard Recovery Acceptable.
5/17/2017 14:05						3.4%	20		Standard RPD Acceptable.
pH (Standard Units)	Q171381150	7.02SU	7		2	100.3%	80 - 120		Standard Recovery Acceptable.
5/16/2017 17:20						0.3%	20		Standard RPD Acceptable.
Sulfate, IC	Q171461203	25.8mg/L	25		1	103.2%	80 - 120		Standard Recovery Acceptable.
5/17/2017 14:05						3.1%	20		Standard RPD Acceptable.
Matrix Spike									
.- Chloride, IC	Q17146120A	93.8mg/L	93	25	1	103.2%	80 - 120		Spike Recovery Acceptable.
5/17/2017 22:58						0.9%	20		Spike RPD Acceptable.
.- Chloride, IC	Q171461204	85.3mg/L	82.1	25	1	112.8%	80 - 120		Spike Recovery Acceptable.
5/18/2017 12:57						3.8%	20		Spike RPD Acceptable.
Fluoride, IC	Q17146120A	2.28mg/L	2.39	2	0.25	94.5%	80 - 120		Spike Recovery Acceptable.
5/17/2017 22:58						4.7%	20		Spike RPD Acceptable.
Fluoride, IC	Q171461204	2.95mg/L	3.12	2	0.25	91.5%	80 - 120		Spike Recovery Acceptable.
5/18/2017 12:57						5.6%	20		Spike RPD Acceptable.
Sulfate, IC	Q171461204	77mg/L	83	25	1	76.0%	70 - 130		Spike Recovery Acceptable.
5/18/2017 12:57						7.5%	20		Spike RPD Acceptable.
Sulfate, IC	Q17146120A	96.1mg/L	96	25	1	100.4%	70 - 130		Spike Recovery Acceptable.
5/17/2017 22:58						0.1%	20		Spike RPD Acceptable.

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55420

Parameter	ID	Result	Ref Value	Amt Added	LOQ	Qualifer	Control	Flag	Comments
Matrix Spike Dup									
.- Chloride, IC	**Q17146120B**	93.8mg/L	93	25	1	103.2%	80 - 120		Spike Recovery Acceptable.
5/17/2017 23:36						0.9%	20		Spike RPD Acceptable.
.- Chloride, IC	**Q17146120C**	85mg/L	82.1	25	1	111.6%	80 - 120		Spike Recovery Acceptable.
5/18/2017 13:35						3.5%	20		Spike RPD Acceptable.
Fluoride, IC	**Q17146120B**	2.28mg/L	2.39	2	0.25	94.5%	80 - 120		Spike Recovery Acceptable.
5/17/2017 23:36						4.7%	20		Spike RPD Acceptable.
Fluoride, IC	**Q17146120C**	2.93mg/L	3.12	2	0.25	90.5%	80 - 120		Spike Recovery Acceptable.
5/18/2017 13:35						6.3%	20		Spike RPD Acceptable.
Sulfate, IC	**Q17146120B**	96.2mg/L	96	25	1	100.8%	70 - 130		Spike Recovery Acceptable.
5/17/2017 23:36						0.2%	20		Spike RPD Acceptable.
Sulfate, IC	**Q17146120C**	77mg/L	83	25	1	76.0%	70 - 130		Spike Recovery Acceptable.
5/18/2017 13:35						7.5%	20		Spike RPD Acceptable.

Flag and Qualifier Legend

Negative - Result Detected
Caution - Problem Detected
Warning - Null Value

MDL = Method Detection Limit ***DF = Dilution Factor***
LOQ = Limit of Quantitation ***j = Analyte detected between MDL and LOQ***
S = surrogate standard out of limit ***H = sample out of hold time***

MS, MSD, RPD- Failure may occur due to matrix interference, data released per QA plan

Friday, June 23, 2017 **B Environmental - LDMS QA Report Summary**

Note: THANK YOU!

DHL Analytical, Inc. **Date:** *24-May-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Lab Order: 1705214

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition and Standard Methods.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives except where noted in the following. For Total Metals Analysis, the recoveries of three analytes for the Matrix Spike and Matrix Spike Duplicate (1705217-03 MS/MSD) were outside of the method control limits. These are flagged accordingly in the QC Summary Report. These analytes were within method control limits in the associated LCS. No further corrective action was taken.

For Total Metals Analysis, the recovery of Antimony for the Post Digestion Spike (1705217-03 PDS) was below the method control limits. This is flagged accordingly in the QC Summary Report. This analyte was within method control limits in the associated Serial Dilution. No further corrective action was taken.

For Total/Dissolved Metals Analysis, the results of dissolved Lithium/Molybdenum for five samples were slightly higher than the results of total Lithium/Molybdenum. The results were within acceptable analytical variation limits. No further corrective action was taken.

DHL Analytical, Inc.

Date: *24-May-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-7
Project:	Coleto Creek Power	**Lab ID:**	1705214-01
Project No:	CCR (55420)	**Alternate ID:**	S171361650
Lab Order:	1705214	**Collection Date:**	05/16/17 11:17 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.00958	0.00500	0.0100	J	mg/L	1	05/23/17 12:43 PM
Dissolved Molybdenum	0.00970	0.00200	0.00500		mg/L	1	05/23/17 12:43 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/22/17 03:42 PM
Arsenic	0.00994	0.00200	0.00500		mg/L	1	05/22/17 03:42 PM
Barium	0.0876	0.00300	0.0100		mg/L	1	05/22/17 03:42 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/22/17 03:42 PM
Boron	0.867	0.100	0.300		mg/L	10	05/23/17 11:24 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/22/17 03:42 PM
Calcium	66.1	1.00	3.00		mg/L	10	05/23/17 11:24 AM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	05/22/17 03:42 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	05/22/17 03:42 PM
Lead	0.000425	0.000300	0.00100	J	mg/L	1	05/22/17 03:42 PM
Lithium	0.00995	0.00500	0.0100	J	mg/L	1	05/22/17 03:42 PM
Magnesium	9.68	0.100	0.300		mg/L	1	05/22/17 03:42 PM
Molybdenum	0.00980	0.00200	0.00500		mg/L	1	05/22/17 03:42 PM
Potassium	1.26	0.100	0.300		mg/L	1	05/22/17 03:42 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/22/17 03:42 PM
Sodium	109	1.00	3.00		mg/L	10	05/23/17 11:24 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/22/17 03:42 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **RO**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/22/17 01:50 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	252	10.0	20.0		mg/L @ pH 4.52	1	05/24/17 11:46 AM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	05/24/17 11:46 AM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	05/24/17 11:46 AM
Alkalinity, Total (As CaCO3)	252	20.0	20.0		mg/L @ pH 4.52	1	05/24/17 11:46 AM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
	C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
	E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
	RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *24-May-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (55420)
Lab Order: 1705214

Client Sample ID: MW-6
Lab ID: 1705214-02
Alternate ID: S17136165A
Collection Date: 05/16/17 10:30 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.00874	0.00500	0.0100	J	mg/L	1	05/23/17 12:45 PM
Dissolved Molybdenum	0.0143	0.00200	0.00500		mg/L	1	05/23/17 12:45 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/22/17 03:44 PM
Arsenic	0.00803	0.00200	0.00500		mg/L	1	05/22/17 03:44 PM
Barium	0.0734	0.00300	0.0100		mg/L	1	05/22/17 03:44 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/22/17 03:44 PM
Boron	1.84	0.100	0.300		mg/L	10	05/23/17 11:26 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/22/17 03:44 PM
Calcium	76.3	1.00	3.00		mg/L	10	05/23/17 11:26 AM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	05/22/17 03:44 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	05/22/17 03:44 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	05/22/17 03:44 PM
Lithium	0.00880	0.00500	0.0100	J	mg/L	1	05/22/17 03:44 PM
Magnesium	8.65	0.100	0.300		mg/L	1	05/22/17 03:44 PM
Molybdenum	0.0131	0.00200	0.00500		mg/L	1	05/22/17 03:44 PM
Potassium	0.868	0.100	0.300		mg/L	1	05/22/17 03:44 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/22/17 03:44 PM
Sodium	72.2	1.00	3.00		mg/L	10	05/23/17 11:26 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/22/17 03:44 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **RO**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/22/17 01:53 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	173	10.0	20.0		mg/L @ pH 4.51	1	05/24/17 11:52 AM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	05/24/17 11:52 AM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	05/24/17 11:52 AM
Alkalinity, Total (As CaCO3)	173	20.0	20.0		mg/L @ pH 4.51	1	05/24/17 11:52 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level
C	Sample Result or QC discussed in the Case Narrative
E	TPH pattern not Gas or Diesel Range Pattern
MDL	Method Detection Limit
RL	Reporting Limit
B	Analyte detected in the associated Method Blank
DF	Dilution Factor
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *24-May-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (55420)
Lab Order: 1705214

Client Sample ID: BV-5
Lab ID: 1705214-03
Alternate ID: S17136165B
Collection Date: 05/16/17 09:05 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.0214	0.00500	0.0100		mg/L	1	05/23/17 12:47 PM
Dissolved Molybdenum	0.0106	0.00200	0.00500		mg/L	1	05/23/17 12:47 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/22/17 03:46 PM
Arsenic	0.00885	0.00200	0.00500		mg/L	1	05/22/17 03:46 PM
Barium	0.0452	0.00300	0.0100		mg/L	1	05/22/17 03:46 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/22/17 03:46 PM
Boron	1.17	0.100	0.300		mg/L	10	05/23/17 11:28 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/22/17 03:46 PM
Calcium	99.0	1.00	3.00		mg/L	10	05/23/17 11:28 AM
Chromium	0.00232	0.00200	0.00500	J	mg/L	1	05/22/17 03:46 PM
Cobalt	0.0495	0.00300	0.00500		mg/L	1	05/22/17 03:46 PM
Lead	0.00151	0.000300	0.00100		mg/L	1	05/22/17 03:46 PM
Lithium	0.0171	0.00500	0.0100		mg/L	1	05/22/17 03:46 PM
Magnesium	16.2	0.100	0.300		mg/L	1	05/22/17 03:46 PM
Molybdenum	0.0102	0.00200	0.00500		mg/L	1	05/22/17 03:46 PM
Potassium	0.241	0.100	0.300	J	mg/L	1	05/22/17 03:46 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/22/17 03:46 PM
Sodium	173	1.00	3.00		mg/L	10	05/23/17 11:28 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/22/17 03:46 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **RO**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/22/17 01:55 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	351	10.0	20.0		mg/L @ pH 4.53	1	05/24/17 12:05 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	05/24/17 12:05 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	05/24/17 12:05 PM
Alkalinity, Total (As CaCO3)	351	20.0	20.0		mg/L @ pH 4.53	1	05/24/17 12:05 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *24-May-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-11
Project:	Coleto Creek Power	**Lab ID:**	1705214-04
Project No:	CCR (55420)	**Alternate ID:**	S17136165C
Lab Order:	1705214	**Collection Date:**	05/16/17 01:10 PM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.0120	0.00500	0.0100		mg/L	1	05/23/17 12:49 PM
Dissolved Molybdenum	0.00850	0.00200	0.00500		mg/L	1	05/23/17 12:49 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/22/17 03:48 PM
Arsenic	0.0180	0.00200	0.00500		mg/L	1	05/22/17 03:48 PM
Barium	0.0869	0.00300	0.0100		mg/L	1	05/22/17 03:48 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/22/17 03:48 PM
Boron	1.39	0.100	0.300		mg/L	10	05/23/17 11:30 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/22/17 03:48 PM
Calcium	62.3	1.00	3.00		mg/L	10	05/23/17 11:30 AM
Chromium	0.00731	0.00200	0.00500		mg/L	1	05/22/17 03:48 PM
Cobalt	0.00310	0.00300	0.00500	J	mg/L	1	05/22/17 03:48 PM
Lead	0.0113	0.000300	0.00100		mg/L	1	05/22/17 03:48 PM
Lithium	0.0144	0.00500	0.0100		mg/L	1	05/22/17 03:48 PM
Magnesium	5.71	0.100	0.300		mg/L	1	05/22/17 03:48 PM
Molybdenum	0.00841	0.00200	0.00500		mg/L	1	05/22/17 03:48 PM
Potassium	2.00	0.100	0.300		mg/L	1	05/22/17 03:48 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/22/17 03:48 PM
Sodium	65.0	1.00	3.00		mg/L	10	05/23/17 11:30 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/22/17 03:48 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **RO**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/22/17 01:57 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	148	10.0	20.0		mg/L @ pH 4.51	1	05/24/17 12:11 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	05/24/17 12:11 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	05/24/17 12:11 PM
Alkalinity, Total (As CaCO3)	148	20.0	20.0		mg/L @ pH 4.51	1	05/24/17 12:11 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *24-May-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (55420)
Lab Order: 1705214

Client Sample ID: PS-3
Lab ID: 1705214-05
Alternate ID: S17136165D
Collection Date: 05/16/17 01:44 PM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.00896	0.00500	0.0100	J	mg/L	1	05/23/17 12:51 PM
Dissolved Molybdenum	0.00541	0.00200	0.00500		mg/L	1	05/23/17 12:51 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/22/17 03:50 PM
Arsenic	0.00902	0.00200	0.00500		mg/L	1	05/22/17 03:50 PM
Barium	0.107	0.00300	0.0100		mg/L	1	05/22/17 03:50 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/22/17 03:50 PM
Boron	1.53	0.100	0.300		mg/L	10	05/23/17 11:32 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/22/17 03:50 PM
Calcium	40.1	1.00	3.00		mg/L	10	05/23/17 11:32 AM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	05/22/17 03:50 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	05/22/17 03:50 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	05/22/17 03:50 PM
Lithium	0.00883	0.00500	0.0100	J	mg/L	1	05/22/17 03:50 PM
Magnesium	3.69	0.100	0.300		mg/L	1	05/22/17 03:50 PM
Molybdenum	0.00521	0.00200	0.00500		mg/L	1	05/22/17 03:50 PM
Potassium	2.28	0.100	0.300		mg/L	1	05/22/17 03:50 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/22/17 03:50 PM
Sodium	66.1	1.00	3.00		mg/L	10	05/23/17 11:32 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/22/17 03:50 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **RO**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/22/17 02:00 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	158	10.0	20.0		mg/L @ pH 4.5	1	05/24/17 12:17 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.5	1	05/24/17 12:17 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.5	1	05/24/17 12:17 PM
Alkalinity, Total (As CaCO3)	158	20.0	20.0		mg/L @ pH 4.5	1	05/24/17 12:17 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *24-May-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-5
Project:	Coleto Creek Power	**Lab ID:**	1705214-06
Project No:	CCR (55420)	**Alternate ID:**	S17136165E
Lab Order:	1705214	**Collection Date:**	05/16/17 02:15 PM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.0180	0.00500	0.0100		mg/L	1	05/23/17 12:53 PM
Dissolved Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	05/23/17 12:53 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/22/17 03:52 PM
Arsenic	0.00967	0.00200	0.00500		mg/L	1	05/22/17 03:52 PM
Barium	0.0708	0.00300	0.0100		mg/L	1	05/22/17 03:52 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/22/17 03:52 PM
Boron	0.215	0.0100	0.0300		mg/L	1	05/23/17 12:15 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/22/17 03:52 PM
Calcium	121	1.00	3.00		mg/L	10	05/23/17 11:34 AM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	05/22/17 03:52 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	05/22/17 03:52 PM
Lead	0.000346	0.000300	0.00100	J	mg/L	1	05/22/17 03:52 PM
Lithium	0.0181	0.00500	0.0100		mg/L	1	05/22/17 03:52 PM
Magnesium	22.1	0.100	0.300		mg/L	1	05/22/17 03:52 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	05/22/17 03:52 PM
Potassium	1.56	0.100	0.300		mg/L	1	05/22/17 03:52 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/22/17 03:52 PM
Sodium	130	1.00	3.00		mg/L	10	05/23/17 11:34 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/22/17 03:52 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **RO**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/22/17 02:02 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	288	10.0	20.0		mg/L @ pH 4.52	1	05/24/17 12:28 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	05/24/17 12:28 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	05/24/17 12:28 PM
Alkalinity, Total (As CaCO3)	288	20.0	20.0		mg/L @ pH 4.52	1	05/24/17 12:28 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *24-May-17*

CLIENT:	B-Environmental	**Client Sample ID:**	Dup
Project:	Coleto Creek Power	**Lab ID:**	1705214-07
Project No:	CCR (55420)	**Alternate ID:**	S17136165F
Lab Order:	1705214	**Collection Date:**	05/16/17
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.00845	0.00500	0.0100	J	mg/L	1	05/23/17 12:55 PM
Dissolved Molybdenum	0.0153	0.00200	0.00500		mg/L	1	05/23/17 12:55 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/22/17 03:54 PM
Arsenic	0.00812	0.00200	0.00500		mg/L	1	05/22/17 03:54 PM
Barium	0.0768	0.00300	0.0100		mg/L	1	05/22/17 03:54 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/22/17 03:54 PM
Boron	1.95	0.100	0.300		mg/L	10	05/23/17 11:36 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/22/17 03:54 PM
Calcium	74.5	1.00	3.00		mg/L	10	05/23/17 11:36 AM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	05/22/17 03:54 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	05/22/17 03:54 PM
Lead	0.000360	0.000300	0.00100	J	mg/L	1	05/22/17 03:54 PM
Lithium	0.00871	0.00500	0.0100	J	mg/L	1	05/22/17 03:54 PM
Magnesium	8.62	0.100	0.300		mg/L	1	05/22/17 03:54 PM
Molybdenum	0.0148	0.00200	0.00500		mg/L	1	05/22/17 03:54 PM
Potassium	0.864	0.100	0.300		mg/L	1	05/22/17 03:54 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/22/17 03:54 PM
Sodium	72.6	1.00	3.00		mg/L	10	05/23/17 11:36 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/22/17 03:54 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **RO**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/22/17 02:04 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	170	10.0	20.0		mg/L @ pH 4.5	1	05/24/17 12:34 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.5	1	05/24/17 12:34 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.5	1	05/24/17 12:34 PM
Alkalinity, Total (As CaCO3)	170	20.0	20.0		mg/L @ pH 4.5	1	05/24/17 12:34 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc. **Date:** *24-May-17*

CLIENT: B-Environmental
Work Order: 1705214
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_170522C

The QC data in batch 80558 applies to the following samples: 1705214-01A, 1705214-02A, 1705214-03A, 1705214-04A, 1705214-05A, 1705214-06A, 1705214-07A

Sample ID	MB-80558	Batch ID:	80558	TestNo:	SW7470A	Units:	mg/L
SampType:	MBLK	Run ID:	CETAC2_HG_170522	Analysis Date:	5/22/2017 1:28:18 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.0000800	0.000200								

Sample ID	LCS-80558	Batch ID:	80558	TestNo:	SW7470A	Units:	mg/L
SampType:	LCS	Run ID:	CETAC2_HG_170522	Analysis Date:	5/22/2017 1:30:34 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00205	0.000200	0.00200	0	103	85	115			

Sample ID	LCSD-80558	Batch ID:	80558	TestNo:	SW7470A	Units:	mg/L
SampType:	LCSD	Run ID:	CETAC2_HG_170522	Analysis Date:	5/22/2017 1:32:50 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00205	0.000200	0.00200	0	103	85	115	0	15	

Sample ID	1705217-03A SD	Batch ID:	80558	TestNo:	SW7470A	Units:	mg/L
SampType:	SD	Run ID:	CETAC2_HG_170522	Analysis Date:	5/22/2017 1:37:23 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.000400	0.00100	0	0				0	10	

Sample ID	1705217-03A PDS	Batch ID:	80558	TestNo:	SW7470A	Units:	mg/L
SampType:	PDS	Run ID:	CETAC2_HG_170522	Analysis Date:	5/22/2017 1:39:38 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00239	0.000200	0.00250	0	95.6	85	115			

Sample ID	1705217-03A MS	Batch ID:	80558	TestNo:	SW7470A	Units:	mg/L
SampType:	MS	Run ID:	CETAC2_HG_170522	Analysis Date:	5/22/2017 1:41:54 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00207	0.000200	0.00200	0	104	80	120			

Sample ID	1705217-03A MSD	Batch ID:	80558	TestNo:	SW7470A	Units:	mg/L
SampType:	MSD	Run ID:	CETAC2_HG_170522	Analysis Date:	5/22/2017 1:44:09 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00209	0.000200	0.00200	0	104	80	120	0.962	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705214
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170522A

The QC data in batch 80552 applies to the following samples: 1705214-01A, 1705214-02A, 1705214-03A, 1705214-04A, 1705214-05A, 1705214-06A, 1705214-07A

Sample ID **MB-80552** Batch ID: **80552** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS4_170522A** Analysis Date: **5/22/2017 3:30:00 PM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.000800	0.00250								
Arsenic	<0.00200	0.00500								
Barium	<0.00300	0.0100								
Beryllium	<0.000300	0.00100								
Cadmium	<0.000300	0.00100								
Calcium	<0.100	0.300								
Chromium	<0.00200	0.00500								
Cobalt	<0.00300	0.00500								
Lead	<0.000300	0.00100								
Lithium	<0.00500	0.0100								
Magnesium	<0.100	0.300								
Molybdenum	<0.00200	0.00500								
Potassium	<0.100	0.300								
Selenium	<0.00200	0.00500								
Sodium	<0.100	0.300								
Thallium	<0.000500	0.00150								

Sample ID **LCS-80552** Batch ID: **80552** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS4_170522A** Analysis Date: **5/22/2017 3:32:00 PM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.192	0.00250	0.200	0	95.9	80	120			
Arsenic	0.198	0.00500	0.200	0	99.2	80	120			
Barium	0.190	0.0100	0.200	0	95.0	80	120			
Beryllium	0.198	0.00100	0.200	0	99.1	80	120			
Cadmium	0.196	0.00100	0.200	0	97.8	80	120			
Calcium	4.97	0.300	5.00	0	99.3	80	120			
Chromium	0.200	0.00500	0.200	0	100	80	120			
Cobalt	0.201	0.00500	0.200	0	100	80	120			
Lead	0.195	0.00100	0.200	0	97.4	80	120			
Lithium	0.198	0.0100	0.200	0	99.1	80	120			
Magnesium	5.02	0.300	5.00	0	100	80	120			
Molybdenum	0.192	0.00500	0.200	0	95.9	80	120			
Potassium	5.04	0.300	5.00	0	101	80	120			
Selenium	0.198	0.00500	0.200	0	99.0	80	120			
Sodium	4.99	0.300	5.00	0	99.8	80	120			
Thallium	0.197	0.00150	0.200	0	98.3	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705214
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170522A

Sample ID LCSD-80552	Batch ID: 80552	TestNo: SW6020A	Units: mg/L
SampType: LCSD	Run ID: ICP-MS4_170522A	Analysis Date: 5/22/2017 3:34:00 PM	Prep Date: 5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.193	0.00250	0.200	0	96.6	80	120	0.707	15	
Arsenic	0.199	0.00500	0.200	0	99.4	80	120	0.265	15	
Barium	0.190	0.0100	0.200	0	95.0	80	120	0.006	15	
Beryllium	0.199	0.00100	0.200	0	99.5	80	120	0.475	15	
Cadmium	0.196	0.00100	0.200	0	98.2	80	120	0.424	15	
Calcium	4.99	0.300	5.00	0	99.8	80	120	0.452	15	
Chromium	0.203	0.00500	0.200	0	101	80	120	1.41	15	
Cobalt	0.202	0.00500	0.200	0	101	80	120	0.468	15	
Lead	0.196	0.00100	0.200	0	98.2	80	120	0.750	15	
Lithium	0.197	0.0100	0.200	0	98.4	80	120	0.696	15	
Magnesium	5.08	0.300	5.00	0	102	80	120	1.07	15	
Molybdenum	0.194	0.00500	0.200	0	96.8	80	120	0.894	15	
Potassium	5.11	0.300	5.00	0	102	80	120	1.41	15	
Selenium	0.198	0.00500	0.200	0	99.0	80	120	0.065	15	
Sodium	5.01	0.300	5.00	0	100	80	120	0.505	15	
Thallium	0.198	0.00150	0.200	0	98.9	80	120	0.574	15	

Sample ID 1705217-03A SD	Batch ID: 80552	TestNo: SW6020A	Units: mg/L
SampType: SD	Run ID: ICP-MS4_170522A	Analysis Date: 5/22/2017 3:40:00 PM	Prep Date: 5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.00400	0.0125	0	0				0	10	
Arsenic	<0.0100	0.0250	0	0.00958				0	10	
Barium	0.0990	0.0500	0	0.101				1.73	10	
Beryllium	<0.00150	0.00500	0	0				0	10	
Cadmium	<0.00150	0.00500	0	0				0	10	
Chromium	<0.0100	0.0250	0	0.00345				0	10	
Cobalt	<0.0150	0.0250	0	0.00305				0	10	
Lead	0.00384	0.00500	0	0.00377				1.89	10	
Lithium	<0.0250	0.0500	0	0.00590				0	10	
Magnesium	7.15	1.50	0	7.00				2.15	10	
Molybdenum	0.0910	0.0250	0	0.0900				1.12	10	
Potassium	1.11	1.50	0	1.08				2.39	10	
Selenium	<0.0100	0.0250	0	0				0	10	
Thallium	<0.00250	0.00750	0	0				0	10	

Sample ID 1705217-03A PDS	Batch ID: 80552	TestNo: SW6020A	Units: mg/L
SampType: PDS	Run ID: ICP-MS4_170522A	Analysis Date: 5/22/2017 4:00:00 PM	Prep Date: 5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.122	0.00250	0.200	0	60.8	80	120			S

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705214
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170522A

Sample ID 1705217-03A PDS	Batch ID: 80552	TestNo: SW6020A	Units: mg/L
SampType: PDS	Run ID: ICP-MS4_170522A	Analysis Date: 5/22/2017 4:00:00 PM	Prep Date: 5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.208	0.00500	0.200	0.00958	99.3	80	120			
Barium	0.285	0.0100	0.200	0.101	91.9	80	120			
Beryllium	0.189	0.00100	0.200	0	94.5	80	120			
Cadmium	0.191	0.00100	0.200	0	95.5	80	120			
Chromium	0.202	0.00500	0.200	0.00345	99.4	80	120			
Cobalt	0.196	0.00500	0.200	0.00305	96.6	80	120			
Lead	0.196	0.00100	0.200	0.00377	96.3	80	120			
Lithium	0.183	0.0100	0.200	0.00590	88.5	80	120			
Magnesium	11.1	0.300	5.00	7.00	82.1	80	120			
Molybdenum	0.274	0.00500	0.200	0.0899	91.8	80	120			
Potassium	5.81	0.300	5.00	1.08	94.5	80	120			
Selenium	0.189	0.00500	0.200	0	94.3	80	120			
Thallium	0.195	0.00150	0.200	0	97.3	80	120			

Sample ID 1705217-03A MS	Batch ID: 80552	TestNo: SW6020A	Units: mg/L
SampType: MS	Run ID: ICP-MS4_170522A	Analysis Date: 5/22/2017 4:02:00 PM	Prep Date: 5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.190	0.00250	0.200	0	95.2	80	120			
Arsenic	0.211	0.00500	0.200	0.00958	101	80	120			
Barium	0.280	0.0100	0.200	0.101	89.8	80	120			
Beryllium	0.191	0.00100	0.200	0	95.3	80	120			
Cadmium	0.191	0.00100	0.200	0	95.7	80	120			
Chromium	0.199	0.00500	0.200	0.00345	97.6	80	120			
Cobalt	0.199	0.00500	0.200	0.00305	97.9	80	120			
Lead	0.198	0.00100	0.200	0.00377	97.0	80	120			
Lithium	0.192	0.0100	0.200	0.00590	93.1	80	120			
Magnesium	11.4	0.300	5.00	7.00	88.9	80	120			
Molybdenum	0.280	0.00500	0.200	0.0899	95.1	80	120			
Potassium	5.91	0.300	5.00	1.08	96.5	80	120			
Selenium	0.194	0.00500	0.200	0	96.8	80	120			
Thallium	0.198	0.00150	0.200	0	98.8	80	120			

Sample ID 1705217-03A MSD	Batch ID: 80552	TestNo: SW6020A	Units: mg/L
SampType: MSD	Run ID: ICP-MS4_170522A	Analysis Date: 5/22/2017 4:04:00 PM	Prep Date: 5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.187	0.00250	0.200	0	93.5	80	120	1.83	15	
Arsenic	0.205	0.00500	0.200	0.00958	97.9	80	120	2.64	15	
Barium	0.273	0.0100	0.200	0.101	86.3	80	120	2.50	15	
Beryllium	0.185	0.00100	0.200	0	92.5	80	120	2.97	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705214
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170522A

Sample ID	1705217-03A MSD	Batch ID:	80552	TestNo:	SW6020A	Units:	mg/L
SampType:	MSD	Run ID:	ICP-MS4_170522A	Analysis Date:	5/22/2017 4:04:00 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.185	0.00100	0.200	0	92.5	80	120	3.37	15	
Chromium	0.194	0.00500	0.200	0.00345	95.2	80	120	2.41	15	
Cobalt	0.193	0.00500	0.200	0.00305	94.9	80	120	3.07	15	
Lead	0.192	0.00100	0.200	0.00377	93.9	80	120	3.14	15	
Lithium	0.185	0.0100	0.200	0.00590	89.5	80	120	3.89	15	
Magnesium	11.3	0.300	5.00	7.00	85.6	80	120	1.43	15	
Molybdenum	0.272	0.00500	0.200	0.0899	91.2	80	120	2.79	15	
Potassium	5.84	0.300	5.00	1.08	95.2	80	120	1.11	15	
Selenium	0.191	0.00500	0.200	0	95.3	80	120	1.54	15	
Thallium	0.195	0.00150	0.200	0	97.5	80	120	1.38	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705214
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170523A

The QC data in batch 80552 applies to the following samples: 1705214-01A, 1705214-02A, 1705214-03A, 1705214-04A, 1705214-05A, 1705214-06A, 1705214-07A

Sample ID **MB-80552** Batch ID: **80552** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS4_170523A** Analysis Date: **5/23/2017 11:12:00 AM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	<0.0100	0.0300								

Sample ID **LCS-80552** Batch ID: **80552** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS4_170523A** Analysis Date: **5/23/2017 11:14:00 AM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.204	0.0300	0.200	0	102	80	120			

Sample ID **LCSD-80552** Batch ID: **80552** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS4_170523A** Analysis Date: **5/23/2017 11:16:00 AM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.205	0.0300	0.200	0	103	80	120	0.702	15	

Sample ID **1705217-03A SD** Batch ID: **80552** TestNo: **SW6020A** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS4_170523A** Analysis Date: **5/23/2017 11:22:00 AM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	3.40	1.50	0	3.18				6.88	10	
Calcium	52.2	15.0	0	53.3				1.96	10	
Sodium	59.1	15.0	0	60.5				2.30	10	

Sample ID **1705217-03A PDS** Batch ID: **80552** TestNo: **SW6020A** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS4_170523A** Analysis Date: **5/23/2017 11:40:00 AM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	5.30	0.300	2.00	3.18	106	80	120			
Calcium	104	3.00	50.0	53.3	102	80	120			
Sodium	115	3.00	50.0	60.5	109	80	120			

Sample ID **1705217-03A MS** Batch ID: **80552** TestNo: **SW6020A** Units: **mg/L**
SampType: **MS** Run ID: **ICP-MS4_170523A** Analysis Date: **5/23/2017 11:42:00 AM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	3.22	0.300	0.200	3.18	22.9	80	120			S
Calcium	55.9	3.00	5.00	53.3	53.0	80	120			S
Sodium	68.4	3.00	5.00	60.5	158	80	120			S

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705214
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170523A

Sample ID	1705217-03A MSD	Batch ID:	80552	TestNo:	SW6020A	Units:	mg/L
SampType:	MSD	Run ID:	ICP-MS4_170523A	Analysis Date:	5/23/2017 11:44:00 AM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	3.27	0.300	0.200	3.18	48.0	80	120	1.55	15	S
Calcium	55.8	3.00	5.00	53.3	49.9	80	120	0.276	15	S
Sodium	67.2	3.00	5.00	60.5	136	80	120	1.67	15	S

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705214
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170523A

The QC data in batch 80556 applies to the following samples: 1705214-01B, 1705214-02B, 1705214-03B, 1705214-04B, 1705214-05B, 1705214-06B, 1705214-07B

Sample ID **MB-80556** Batch ID: **80556** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS4_170523A** Analysis Date: **5/23/2017 12:31:00 PM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.00500	0.0100								
Molybdenum	<0.00200	0.00500								

Sample ID **LCS-80556** Batch ID: **80556** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS4_170523A** Analysis Date: **5/23/2017 12:33:00 PM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.203	0.0100	0.200	0	101	80	120			
Molybdenum	0.198	0.00500	0.200	0	99.1	80	120			

Sample ID **LCSD-80556** Batch ID: **80556** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS4_170523A** Analysis Date: **5/23/2017 12:35:00 PM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.208	0.0100	0.200	0	104	80	120	2.70	15	
Molybdenum	0.204	0.00500	0.200	0	102	80	120	3.07	15	

Sample ID **1705217-03B SD** Batch ID: **80556** TestNo: **SW6020A** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS4_170523A** Analysis Date: **5/23/2017 12:41:00 PM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.0250	0.0500	0	0.00500				0	10	
Molybdenum	0.0960	0.0250	0	0.0915				4.78	10	

Sample ID **1705217-03B PDS** Batch ID: **80556** TestNo: **SW6020A** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS4_170523A** Analysis Date: **5/23/2017 1:01:00 PM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.192	0.0100	0.200	0.00500	93.5	80	120			
Molybdenum	0.279	0.00500	0.200	0.0915	93.7	80	120			

Sample ID **1705217-03B MS** Batch ID: **80556** TestNo: **SW6020A** Units: **mg/L**
SampType: **MS** Run ID: **ICP-MS4_170523A** Analysis Date: **5/23/2017 1:03:00 PM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.199	0.0100	0.200	0.00500	96.8	80	120			
Molybdenum	0.299	0.00500	0.200	0.0915	104	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705214
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170523A

Sample ID	1705217-03B MSD	Batch ID:	80556	TestNo:	SW6020A	Units:	mg/L
SampType:	MSD	Run ID:	ICP-MS4_170523A	Analysis Date:	5/23/2017 1:05:00 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.193	0.0100	0.200	0.00500	94.2	80	120	2.62	15	
Molybdenum	0.290	0.00500	0.200	0.0915	99.3	80	120	3.10	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705214
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_170524B

The QC data in batch 80594 applies to the following samples: 1705214-01C, 1705214-02C, 1705214-03C, 1705214-04C, 1705214-05C, 1705214-06C, 1705214-07C

Sample ID **MB-80594** Batch ID: **80594** TestNo: **M2320 B** Units: **mg/L @ pH 4.24**
SampType: **MBLK** Run ID: **TITRATOR_170524B** Analysis Date: **5/24/2017 10:09:00 AM** Prep Date: **5/24/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0								
Alkalinity, Total (As CaCO3)	<20.0	20.0								

Sample ID **LCS-80594** Batch ID: **80594** TestNo: **M2320 B** Units: **mg/L @ pH 4**
SampType: **LCS** Run ID: **TITRATOR_170524B** Analysis Date: **5/24/2017 10:13:00 AM** Prep Date: **5/24/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	51.8	20.0	50.00	0	104	74	129			

Sample ID **1705217-03C-DUP** Batch ID: **80594** TestNo: **M2320 B** Units: **mg/L @ pH 4.51**
SampType: **DUP** Run ID: **TITRATOR_170524B** Analysis Date: **5/24/2017 1:17:00 PM** Prep Date: **5/24/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	133	20.0	0	133.5				0.375	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	133	20.0	0	133.5				0.375	20	

Sample ID **1705238-01C-DUP** Batch ID: **80594** TestNo: **M2320 B** Units: **mg/L @ pH 4.48**
SampType: **DUP** Run ID: **TITRATOR_170524B** Analysis Date: **5/24/2017 2:14:00 PM** Prep Date: **5/24/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	<10.0	20.0	0	10.00				0	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	<20.0	20.0	0	0				0	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

2609 North River Road, Port Allen, Louisiana 70767
(800) 401-4277 -- FAX (225) 381-2996

ARS International, LLC

Laboratory Analysis Report

ARS1-17-01446

Prepared for:

B-Environmental

Kevin Baros
1606 East Brazos Street
Suite D
Victoria, TX 77901

dbenviro@suddenlinkmail.com; cbenviro@suddenlinkmail.com
swbenviro@suddenlinkmail.com

Phone: 361-572-8224
Fax: 361-572-4115

Project Manager Review

Management Review

Notes: ARS International, LLC assumes no liability for the use or the interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

Contact Person: Questions regarding this analytical report should be addressed to:

Project Manager
ProjectManagers@amrad.com

Phone: 225.381.2991
Fax: 225.381.2996

LELAP Cert# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01446
Client Sample ID: S171361650 (BATCH 55420)
Sample Collection Date: 05/16/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01446-001
Date Received: 05/23/17
Report Date: 06/19/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CDRL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.280	0.144	0.142	0.052	NP	Q	pCi/L	ARS-010/EPA 903.0/904.0	06/09/17 6:26	SCAUSEY	98%
Ra-228	1.055	0.693	1.047	0.483	NP		pCi/L	ARS-010/EPA 903.0/904.0	06/02/17 11:50	SCAUSEY	98%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01446
Client Sample ID: S17136165A (BATCH 55420)
Sample Collection Date: 05/16/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01446-002
Date Received: 05/23/17
Report Date: 06/19/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CDRL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.144	0.148	0.232	0.096	NP	U,Q	pCi/L	ARS-010/EPA 903.0/904.0	06/09/17 6:26	SCAUSEY	85%
Ra-228	0.630	0.808	1.349	0.629	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/02/17 11:50	SCAUSEY	85%

Project Manager Review

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01446
Client Sample ID: S17136165B (BATCH 55420)
Sample Collection Date: 05/16/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01446-003
Date Received: 05/23/17
Report Date: 06/19/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CDRL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.359	0.198	0.235	0.095	NP	Q	pCi/L	ARS-010/EPA 903.0/904.0	06/09/17 6:26	SCAUSEY	84%
Ra-228	0.396	0.799	1.374	0.639	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/02/17 11:49	SCAUSEY	81%

Project Manager Review

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01446
Client Sample ID: S1713616SC (BATCH 55420)
Sample Collection Date: 05/16/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01446-004
Date Received: 05/23/17
Report Date: 06/19/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CDRL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.308	0.169	0.195	0.077	NP	Q	pCi/L	ARS-010/EPA 903.0/904.0	06/09/17 6:26	SCAUSEY	91%
Ra-228	1.110	0.786	1.213	0.564	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/02/17 11:49	SCAUSEY	91%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01446
Client Sample ID: S17136165D (BATCH 55420)
Sample Collection Date: 05/16/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01446-005
Date Received: 05/23/17
Report Date: 06/19/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CDRL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.633	0.226	0.171	0.066	NP	Q	pCi/L	ARS-010/EPA 903.0/904.0	06/09/17 6:26	SCAUSEY	99%
Ra-228	-0.069	0.579	1.061	0.492	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/02/17 11:49	SCAUSEY	99%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01446
Client Sample ID: S17136165E (BATCH 55420)
Sample Collection Date: 05/16/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01446-006
Date Received: 05/23/17
Report Date: 06/19/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CDRL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.070	0.109	0.189	0.072	NP	U,Q	pCi/L	ARS-010/EPA 903.0/904.0	06/09/17 6:26	SCAUSEY	80%
Ra-228	0.571	0.798	1.343	0.621	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/02/17 11:49	SCAUSEY	81%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01446
Client Sample ID: S17136165F (BATCH 55420)
Sample Collection Date: 05/11/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01446-007
Date Received: 05/23/17
Report Date: 06/19/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CDRL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.145	0.115	0.158	0.060	NP	U,Q	pCi/L	ARS-010/EPA 903.0/904.0	06/09/17 6:26	SCAUSEY	96%
Ra-228	1.062	0.912	1.465	0.691	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/02/17 11:49	SCAUSEY	100%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

INTERNATIONAL

QC Results Report

Sample Delivery Group: ARS1-17-01446

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-01071	LCS	RA-226	28.575	4.601	0.092	27.549	N/A	pCi/L	ARS-010/EPA 903	6/9/17 6:26	SC	104	75%-125%
ARS1-B17-01071	LCS	RA-228	32.097	5.373	1.027	39.784	N/A	pCi/L	ARS-010/EPA 904	6/9/17 6:26	SC	81	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-01071	MBL	RA-226	0.321	0.117	0.084	NA		pCi/L	ARS-010/EPA 903	6/9/17 6:26	SC
ARS1-B17-01071	MBL	RA-228	-0.161	0.354	0.660	NA	U	pCi/L	ARS-010/EPA 904	6/9/17 6:26	SC

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-01071	LCSD	RA-226	28.575	4.601	29.708	4.786	N/A	pCi/L	ARS-010/EPA 903	6/9/17 6:26	SC	0.12	< 1
ARS1-B17-01071	LCSD	RA-228	32.097	5.373	33.794	5.632	N/A	pCi/L	ARS-010/EPA 904	6/9/17 6:26	SC	0.15	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-01071	LCSD	RA-226	28.575	4.601	29.708	4.786	N/A	pCi/L	ARS-010/EPA 903	6/9/17 6:26	SC	0.17	< 3
ARS1-B17-01071	LCSD	RA-228	32.097	5.373	33.794	5.632	N/A	pCi/L	ARS-010/EPA 904	6/9/17 6:26	SC	0.22	< 3

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

ARS INTERNATIONAL
2609 North River Road • Port Allen, Louisiana 70767
1 (800) 401-4277 • Fax (225) 381-2996

Notes (Case Narrative):

Comments:

1.0) All MDA/MDC values are calculated on a sample specific basis.
2.0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.
3.0) Data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.
4.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix. Modified analyses are indicated by the subsequent addition of "m" to the procedure number (i.e. 900.0M).
5.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than the actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
6.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228 (Gamma Spectroscopy only).
7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234 (Gamma Spectroscopy only).
8.0) All gamma spectroscopy was performed utilizing high purity germanium detectors (**HPGe**).
9.0) ARS makes every attempt to match sample density to calibrated density; however, in some cases, it is not practical or possible to do so and data results may be affected (Gamma Spectroscopy only).
10.0) Gamma spectroscopy results are calculated values based on the **ORTEC®** GammaVision ENV32 Analysis Engine.
11.0) ACLASS DOD and ISO 17025 certification applies only to the following analytes and methods: Gross Alpha and Gross Beta (EPA 900, SM7110B&C, SW846 9310); Radium 226 (EPA 903, EPA 903.1, SM 7500 Ra-B, SW846 9315); Radium 228 (EPA 904, SM 7500 Ra-B SW846 9320); Iodine-131(EPA 901.1); Uranium by ICPMS (EPA 200.8); Strontium 89/90 (EPA 905, Eichrom SRW01, HASL 300 Sr-03-RC); Tritium (EPA 906, EPA 906M); Gamma Emitters (EPA 901.1, SM7120B, HASL 300 Ga-01-R); Americium-241, Curium 242/244, Plutonium 239/240 and 241, Thorium 228/230/232, Uranium 234/233 and 238 (Eichrom ACW03 VBS); Lead 210 (HASL 300 Pb-01-RC, Eichrom OTW01); Polonium 210 (HASL 300 Po-01-RC, HASL 300 Po-02-RC); Technetium-99 (Eichrom TCW02, Eichrom TCS01M).

Method References:

1.0) **EPA 600/4-80-032**; Prescribed Procedures for the Measurements of Radioactivity in Drinking Water, August 1980.
2.0) **Standard Methods for the Examination of Water and Wastewater** (On-Line Edition)
3.0) **EPA SW-846**; Test Methods for Evaluating Solid Waste, (On-Line edition)
4.0) **EPA 600/4/79-020**; Methods for Chemical Analysis of Water and Waste, March 1983.
5.0) **HASL 300**; The Procedures Manual of the Environmental Measurements Laboratory, Volume I, 28th Edition February, 1997.

Definitions:

CRDL	Contract Required Detection Limit
CSU	Combined Standard Uncertainty
DLC	Decision Level Concentration (ANSI N42.23) or critical level
DO	Duplicate Original
DUP	Method Duplicate
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
MDA	Minimum Detectable Activity
MDC	(Minimum Detectable Concentration) minimum concentration of the analyte that ARS can detect utilizing the specific analysis
MBL	Method Blank
MS/MSD	Matrix Spike/Matrix Spike Duplicate
N/A	Not Applicable
NP	Not Provided
NR	Not Referenced
LOD	Limit of Detection
LOQ	Limit of Quantitation

Data Qualifiers:

B	The analyte is found in both the associated method blank and the sample. This flag indicates probable blank contamination.
D	Sample analysis accomplished through dilution.
J	The reported result is an estimated value above the limit of detection but outside of quantitation range (e.g., matrix interference was observed).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).
U	Activity is below the MDC, MDA, MDL, or LOD
N	The analyte is a tentatively identified compound using mass spectrometry or any non-customer requested compounds that are tentatively identified.
*	LCS/LCSD or MS/MSD fails RPD criteria.
S	Spike
SC	Subcontracted out to another qualified laboratory
H	Holding time exceeded

LELAP Cert# 01949 ***NELAP Cert# E87558***

ARS-059-010
Revision: 9.1
Revision Date: 03-14-2017

B - Environmental

Chain of Custody Record

Batch # 55420

TEMP UN-C: 5.3 | Page ___ of ___

TEMP Corr: 5.1

THERM ID# 3

Check box if Billing is the same as Report Information

Customer / Report Information

Name: COLETO CREEK POWER
Attention: RICK COLEMAN
Address:

Billing Information

Address:
Attention: PO#:
Project:
Comments: CCR SAMPLING

Phone: 361-788-5145 FAX:
EMAIL: Richard.coleman@dynegy.com

Requested Analysis: D A A C E B B F

Completed By Laboratory

Sample Information				Matrix	Container															Custody Seals Present / Intact / LAB Sample Number
Collected By:																				
Client / Field Sample ID	Collected Date	Collected Time	G=Grab C=Composite	DW - Drinking H20 S - Solid WW - Waste H20 SL - Sludge L - Liquid W - Water	TYPE	NUMBER	SIZE	Preservative	Metals*	Cl, F, SO4	PH	TDS	Ra 226 + Ra 228	Alk, Tot Carb, Bi Carb	Diss Liq/MD					
mw-7	5-16-17	1117	G	W	P	6	1L 500 250	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3	X	X	X	X	X	X	X					S171361650
mw-6		1030						☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3												S17136165A
BV-5		905						☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3												S17136165B
mw-11		1310						☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3												S17136165C
PS-3		1344						☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3												S17136165D
mw-5		1415						☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3												S17136165E
Dup	✓							☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3												S17136165F

Required Turnaround: ☐ Routine (6-10 Business Days) Expedite / Rush: ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business Days ☑ 5 Business Days ☐ Other _____ REMARKS:

Surcharge will apply to RUSH TAT Authorized By:

Container Type: P=Plastic, G=Glass, V=VOA, O=Other | Carrier ID :

Relinquished By:		Date:	5-16-17	Time:	1500	Received By:		Date:	5/16/17	Time:	1500
Relinquished By:		Date:	5/16/17	Time:	1625	Received By:		Date:	5/16/17	Time:	1625
Relinquished By:		Date:		Time:		Received By:		Date:		Time:	

1606 E Brazos Suite D, Victoria, Texas 77901 Ph. (361) 572-8224 Fax (361) 572-4115 Toll Free 1-800-460-8223 Form #1000.0-2 REV 1.2 Email: kbenviro@suddenlinkmail.com www.benvironmental.net

Fluoride: 0.25 Mg/L ; Metals* B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Ti, Mg, K, Na, & Hg

BatchNo: 55476

SAMPLE REPORT

T104704328-17-14

Business

Coleto Creek Power - R Coleman
PO Box 8
Fannin TX 77960
Att: Rick Coleman

Laboratory

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901
ph. 361-572-8224

Reference Information

Project: CCR Sampling

Printed: Wednesday, June 21, 2017

Re: Coleto Creek Power - R Coleman

Dear: Rick Coleman

Attached are the results for sample(s) received on 5/17/2017

The analytical results relate only to the samples tested.
All supporting quality data meets the requirements of NELAC unless noted in the case narrative section of the report.

This report contains 39 pages (including the cover page)

If you have any questions concerning this report, please do not hesitate to call (361) 572-8224 or Fax us at (361) 572-4115

Respectfully Submitted,

Kevin Baros

Laboratory Director

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55476

Batch No: 55476

Sample Receipt Checklist

Date Received: 5/17/2017

Project	CCR Sampling	Received By:	Woodruff

Login completed by: Woodruff (Signature) 5/17/2017 (LoginDate:)

Carrier Name: Walk In

Shipping container/cooler in good condition?	☑ YES	☐ NO	☐ Not Present
Custody seals intact on shipping container/cooler?	☐ YES	☐ NO	☑ Not Present
Custody seals intact on sample bottles?	☐ YES	☐ NO	☑ Not Present
Chain of Custody present?	☑ YES	☐ NO	
Chain of Custody signed when relinquished and received	☑ YES	☐ NO	
Chain of Custody agrees with sample labels?	☑ YES	☐ NO	
Samples in proper container/bottles?	☑ YES	☐ NO	
Sample containers intact?	☑ YES	☐ NO	
Sufficient sample volume for indicated tests?	☑ YES	☐ NO	
All samples received within holding times?	☑ YES	☐ NO	
Container/Temp Blank - temperature in compliance?	☑ YES	☐ NO	>0 <6 °C On Ice
Water - VOA vials have zero headspace? Bubble < 6mm?	☐ YES	☐ NO	☑ No VOA Vials submitted
Water - pH acceptable upon receipt?	☑ YES	☐ NO	☐ Not Applicable

*TEMP 3.1/2.9 | pH Adjusted? No | Checked By L. Vahrenkamp

Any No and/or N/A (not applicable) response must be detailed in the comments section below.

Client contacted		PersonContacted	
Contacted by:		Date Contacted:	

Regarding:

Comments:
Therm. #3. HNO3 Lot# 2-42-12. pH Paper Lot# 2-42-12.

Corrective Action:

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55476

Sample Report Information

Sample ID:	S171371636	Client ID:	MW-10	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #10
Notes:

Batch No: 55476
Sampled: 5/16/2017 3:28 PM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	81	mg/L	EPA 300	K Baros	5/18/2017 10:24	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	240	mg/L	SM 2320 B		5/24/2017 12:48	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/24/2017 12:48	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	240	mg/L	SM 2320 B		5/24/2017 12:48	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.81	mg/L	EPA 300	K Baros	5/18/2017 10:24	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.35	SU	SM 4500-H+B	C Watts	5/17/2017 15:40					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	612	mg/L	SM2540C	C Watts	5/24/2017 17:45	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			5/22/2017 15:58					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	95	mg/L	EPA 300	K Baros	5/18/2017 10:24	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			6/6/2017 7:35					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55476

Sample Report Information

Sample ID:	S171371639	Client ID:	MW-10A	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW 10A
Notes:

Batch No: 55476
Sampled: 5/16/2017 3:58 PM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	366	mg/L	EPA 300	K Baros	5/18/2017 10:24	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	331	mg/L	SM 2320 B		5/24/2017 13:06	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/24/2017 13:06	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	331	mg/L	SM 2320 B		5/24/2017 13:06	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.43	mg/L	EPA 300	K Baros	5/18/2017 10:24	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7	SU	SM 4500-H+B	C Watts	5/17/2017 15:40					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	1196	mg/L	SM2540C	C Watts	5/24/2017 17:45	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			5/22/2017 16:16					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	84	mg/L	EPA 300	K Baros	5/18/2017 10:24	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			6/6/2017 7:35					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55476

Sample Report Information

Sample ID:	S171371640	Client ID:	MW-9	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #9
Notes:

Batch No: 55476
Sampled: 5/17/2017 8:22 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	67	mg/L	EPA 300	K Baros	5/18/2017 10:24	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	134	mg/L	SM 2320 B		5/24/2017 13:12	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/24/2017 13:12	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	134	mg/L	SM 2320 B		5/24/2017 13:12	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	1.26	mg/L	EPA 300	K Baros	5/18/2017 10:24	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.4	SU	SM 4500-H+B	C Watts	5/17/2017 15:40					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	440	mg/L	SM2540C	C Watts	5/24/2017 17:45	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			5/22/2017 15:38					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	58	mg/L	EPA 300	K Baros	5/18/2017 10:24	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			6/6/2017 7:35					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55476

Sample Report Information

Sample ID:	S171371641	Client ID:	MW-9A	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW 9A
Notes:

Batch No: 55476
Sampled: 5/17/2017 9:10 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	64	mg/L	EPA 300	K Baros	5/18/2017 10:24	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	134	mg/L	SM 2320 B		5/24/2017 13:23	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/24/2017 13:23	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	134	mg/L	SM 2320 B		5/24/2017 13:23	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	1.25	mg/L	EPA 300	K Baros	5/18/2017 10:24	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.59	SU	SM 4500-H+B	C Watts	5/17/2017 15:40					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	410	mg/L	SM2540C	C Watts	5/24/2017 17:45	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			5/22/2017 16:18					☑	PCS Cert No. T104704361-08
Sulfate, IC	65	mg/L	EPA 300	K Baros	5/18/2017 10:24	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			6/6/2017 7:35					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55476

Sample Report Information

Sample ID:	S171371642	Client ID:	BV-21	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV 21
Notes:

Batch No: 55476
Sampled: 5/17/2017 1:08 PM

Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	39	mg/L	EPA 300	K Baros	5/18/2017 10:24	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	237	mg/L	SM 2320 B		5/24/2017 13:32	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/24/2017 13:32	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	237	mg/L	SM 2320 B		5/24/2017 13:32	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.58	mg/L	EPA 300	K Baros	5/18/2017 10:24	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.19	SU	SM 4500-H+B	C Watts	5/17/2017 15:40					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	454	mg/L	SM2540C	C Watts	5/24/2017 17:45	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			5/22/2017 16:20					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	53	mg/L	EPA 300	K Baros	5/18/2017 10:24	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			6/6/2017 7:44					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55476

Sample Report Information

Sample ID:	S171371643	Client ID:	BV-22	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV 22
Notes:

Batch No: 55476
Sampled: 5/17/2017 1:46 PM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	36	mg/L	EPA 300	K Baros	5/18/2017 10:24	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	235	mg/L	SM 2320 B		5/24/2017 13:40	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/24/2017 13:40	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	235	mg/L	SM 2320 B		5/24/2017 13:40	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.52	mg/L	EPA 300	K Baros	5/18/2017 10:24	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.23	SU	SM 4500-H+B	C Watts	5/17/2017 15:40					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	392	mg/L	SM2540C	C Watts	5/24/2017 17:45	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			5/22/2017 16:22					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	33	mg/L	EPA 300	K Baros	5/18/2017 10:24	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			6/14/2017 7:44					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55476

QA Summary Report

Parameter	ID	Result	Ref Value	Amt Added	LOQ	Qualifer	Control	Flag	Comments
.Method Blank									
.- Chloride, IC	Q171461202	<1mg/L	0		1		1		Blank Acceptable.
5/17/2017 13:27									
Fluoride, IC	Q171461202	<0.25mg/L	0		0.25		0.25		Blank Acceptable.
5/17/2017 13:27									
Solids, Total Dissolved	Q171511045	<25mg/L	0		10		25		Blank Acceptable.
5/24/2017 17:45									
Sulfate, IC	Q171461202	<1mg/L	0		1		1		Blank Acceptable.
5/17/2017 13:27									
Duplicate									
pH (Standard Units)	Q171381200	8.13SU	8.11		2	0.2%	20		Duplicate RPD Acceptable.
5/17/2017 15:40									
pH (Standard Units)	Q17138120A	7.55SU	7.59		2	0.5%	20		Duplicate RPD Acceptable.
5/17/2017 15:40									
Solids, Total Dissolved	Q171511047	408mg/L	410		10	0.5%	20		Duplicate RPD Acceptable.
5/24/2017 17:45									
Laboratory Control Standard									
.- Chloride, IC	Q171461203	25.4mg/L	25		1	101.6%	80 - 120		Standard Recovery Acceptable.
5/17/2017 14:05						1.6%	20		Standard RPD Acceptable.
Fluoride, IC	Q171461203	2.07mg/L	2		0.25	103.5%	80 - 120		Standard Recovery Acceptable.
5/17/2017 14:05						3.4%	20		Standard RPD Acceptable.
pH (Standard Units)	Q171381159	7.02SU	7		2	100.3%	80 - 120		Standard Recovery Acceptable.
5/17/2017 15:40						0.3%	20		Standard RPD Acceptable.
Sulfate, IC	Q171461203	25.8mg/L	25		1	103.2%	80 - 120		Standard Recovery Acceptable.
5/17/2017 14:05						3.1%	20		Standard RPD Acceptable.
Matrix Spike									
.- Chloride, IC	Q17146120A	93.8mg/L	93	25	1	103.2%	80 - 120		Spike Recovery Acceptable.
5/17/2017 22:58						0.9%	20		Spike RPD Acceptable.
.- Chloride, IC	Q171461204	85.3mg/L	82.1	25	1	112.8%	80 - 120		Spike Recovery Acceptable.
5/18/2017 12:57						3.8%	20		Spike RPD Acceptable.
Fluoride, IC	Q17146120A	2.28mg/L	2.39	2	0.25	94.5%	80 - 120		Spike Recovery Acceptable.
5/17/2017 22:58						4.7%	20		Spike RPD Acceptable.
Fluoride, IC	Q171461204	2.95mg/L	3.12	2	0.25	91.5%	80 - 120		Spike Recovery Acceptable.
5/18/2017 12:57						5.6%	20		Spike RPD Acceptable.
Sulfate, IC	Q171461204	77mg/L	83	25	1	76.0%	70 - 130		Spike Recovery Acceptable.
5/18/2017 12:57						7.5%	20		Spike RPD Acceptable.
Sulfate, IC	Q17146120A	96.1mg/L	96	25	1	100.4%	70 - 130		Spike Recovery Acceptable.
5/17/2017 22:58						0.1%	20		Spike RPD Acceptable.

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55476

Parameter	ID	Result	Ref Value	Amt Added	LOQ	Qualifer	Control	Flag	Comments
Matrix Spike Dup									
.- Chloride, IC	**Q17146120B**	93.8mg/L	93	25	1	103.2%	80 - 120		Spike Recovery Acceptable.
5/17/2017 23:36						0.9%	20		Spike RPD Acceptable.
.- Chloride, IC	**Q17146120C**	85mg/L	82.1	25	1	111.6%	80 - 120		Spike Recovery Acceptable.
5/18/2017 13:35						3.5%	20		Spike RPD Acceptable.
Fluoride, IC	**Q17146120B**	2.28mg/L	2.39	2	0.25	94.5%	80 - 120		Spike Recovery Acceptable.
5/17/2017 23:36						4.7%	20		Spike RPD Acceptable.
Fluoride, IC	**Q17146120C**	2.93mg/L	3.12	2	0.25	90.5%	80 - 120		Spike Recovery Acceptable.
5/18/2017 13:35						6.3%	20		Spike RPD Acceptable.
Sulfate, IC	**Q17146120B**	96.2mg/L	96	25	1	100.8%	70 - 130		Spike Recovery Acceptable.
5/17/2017 23:36						0.2%	20		Spike RPD Acceptable.
Sulfate, IC	**Q17146120C**	77mg/L	83	25	1	76.0%	70 - 130		Spike Recovery Acceptable.
5/18/2017 13:35						7.5%	20		Spike RPD Acceptable.

Flag and Qualifier Legend

Negative - Result Detected
Caution - Problem Detected
Warning - Null Value

MDL = Method Detection Limit ***DF = Dilution Factor***
LOQ = Limit of Quantitation ***j = Analyte detected between MDL and LOQ***
S = surrogate standard out of limit ***H = sample out of hold time***

MS, MSD, RPD- Failure may occur due to matrix interference, data released per QA plan

Wednesday, June 21, 2017 **B Environmental - LDMS QA Report Summary**

Note: THANK YOU!

Batch # 55476

DHL Analytical, Inc. **Date:** *25-May-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Lab Order: 1705217

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition and Standard Methods.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives except where noted in the following. For Total Metals Analysis, the recoveries of three analytes for the Matrix Spike and Matrix Spike Duplicate (1705217-03 MS/MSD) were outside of the method control limits. These are flagged accordingly in the QC Summary Report. These analytes were within method control limits in the associated LCS. No further corrective action was taken.

For Total Metals Analysis, the recovery of Antimony for the Post Digestion Spike (1705217-03 PDS) was below the method control limits. This is flagged accordingly in the QC Summary Report. This analyte was within method control limits in the associated Serial Dilution. No further corrective action was taken.

For Total/Dissolved Metals Analysis, the results of dissolved Lithium/Molybdenum for five samples were slightly higher than the results of total Lithium/Molybdenum. The results were within acceptable analytical variation limits. No further corrective action was taken.

DHL Analytical, Inc.

Date: *25-May-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (55476)
Lab Order: 1705217

Client Sample ID: MW-10
Lab ID: 1705217-01
Alternate ID: S171371636
Collection Date: 05/16/17 03:28 PM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.0136	0.00500	0.0100		mg/L	1	05/23/17 12:59 PM
Dissolved Molybdenum	0.105	0.00200	0.00500		mg/L	1	05/23/17 12:59 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/22/17 03:58 PM
Arsenic	0.0150	0.00200	0.00500		mg/L	1	05/22/17 03:58 PM
Barium	0.0598	0.00300	0.0100		mg/L	1	05/22/17 03:58 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/22/17 03:58 PM
Boron	7.45	0.200	0.600		mg/L	20	05/23/17 11:54 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/22/17 03:58 PM
Calcium	62.7	2.00	6.00		mg/L	20	05/23/17 11:54 AM
Chromium	0.00476	0.00200	0.00500	J	mg/L	1	05/22/17 03:58 PM
Cobalt	0.00318	0.00300	0.00500	J	mg/L	1	05/22/17 03:58 PM
Lead	0.000946	0.000300	0.00100	J	mg/L	1	05/22/17 03:58 PM
Lithium	0.0123	0.00500	0.0100		mg/L	1	05/22/17 03:58 PM
Magnesium	9.73	0.100	0.300		mg/L	1	05/22/17 03:58 PM
Molybdenum	0.0987	0.00200	0.00500		mg/L	1	05/22/17 03:58 PM
Potassium	1.08	0.100	0.300		mg/L	1	05/22/17 03:58 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/22/17 03:58 PM
Sodium	137	2.00	6.00		mg/L	20	05/23/17 11:54 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/22/17 03:58 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **RO**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/22/17 02:15 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	240	10.0	20.0		mg/L @ pH 4.52	1	05/24/17 12:48 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	05/24/17 12:48 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	05/24/17 12:48 PM
Alkalinity, Total (As CaCO3)	240	20.0	20.0		mg/L @ pH 4.52	1	05/24/17 12:48 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *25-May-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-10A
Project:	Coleto Creek Power	**Lab ID:**	1705217-02
Project No:	CCR (55476)	**Alternate ID:**	S171371639
Lab Order:	1705217	**Collection Date:**	05/16/17 03:58 PM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.0228	0.00500	0.0100		mg/L	1	05/23/17 01:15 PM
Dissolved Molybdenum	0.00248	0.00200	0.00500	J	mg/L	1	05/23/17 01:15 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/22/17 04:16 PM
Arsenic	0.00542	0.00200	0.00500		mg/L	1	05/22/17 04:16 PM
Barium	0.0986	0.00300	0.0100		mg/L	1	05/22/17 04:16 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/22/17 04:16 PM
Boron	0.331	0.0100	0.0300		mg/L	1	05/23/17 12:17 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/22/17 04:16 PM
Calcium	180	1.00	3.00		mg/L	10	05/23/17 11:56 AM
Chromium	0.00835	0.00200	0.00500		mg/L	1	05/22/17 04:16 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	05/22/17 04:16 PM
Lead	0.00180	0.000300	0.00100		mg/L	1	05/22/17 04:16 PM
Lithium	0.0250	0.00500	0.0100		mg/L	1	05/22/17 04:16 PM
Magnesium	31.1	1.00	3.00		mg/L	10	05/23/17 11:56 AM
Molybdenum	0.00275	0.00200	0.00500	J	mg/L	1	05/22/17 04:16 PM
Potassium	1.87	0.100	0.300		mg/L	1	05/22/17 04:16 PM
Selenium	0.00231	0.00200	0.00500	J	mg/L	1	05/22/17 04:16 PM
Sodium	176	1.00	3.00		mg/L	10	05/23/17 11:56 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/22/17 04:16 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **RO**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/22/17 02:18 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	331	10.0	20.0		mg/L @ pH 4.52	1	05/24/17 01:06 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	05/24/17 01:06 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	05/24/17 01:06 PM
Alkalinity, Total (As CaCO3)	331	20.0	20.0		mg/L @ pH 4.52	1	05/24/17 01:06 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *25-May-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (55476)
Lab Order: 1705217

Client Sample ID: MW-9
Lab ID: 1705217-03
Alternate ID: S171371640
Collection Date: 05/17/17 08:22 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.00500	0.00500	0.0100	J	mg/L	1	05/23/17 12:39 PM
Dissolved Molybdenum	0.0915	0.00200	0.00500		mg/L	1	05/23/17 12:39 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/22/17 03:38 PM
Arsenic	0.00956	0.00200	0.00500		mg/L	1	05/22/17 03:38 PM
Barium	0.101	0.00300	0.0100		mg/L	1	05/22/17 03:38 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/22/17 03:38 PM
Boron	3.18	0.100	0.300		mg/L	10	05/23/17 11:20 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/22/17 03:38 PM
Calcium	53.3	1.00	3.00		mg/L	10	05/23/17 11:20 AM
Chromium	0.00345	0.00200	0.00500	J	mg/L	1	05/22/17 03:38 PM
Cobalt	0.00305	0.00300	0.00500	J	mg/L	1	05/22/17 03:38 PM
Lead	0.00377	0.000300	0.00100		mg/L	1	05/22/17 03:38 PM
Lithium	0.00590	0.00500	0.0100	J	mg/L	1	05/22/17 03:38 PM
Magnesium	7.00	0.100	0.300		mg/L	1	05/22/17 03:38 PM
Molybdenum	0.0899	0.00200	0.00500		mg/L	1	05/22/17 03:38 PM
Potassium	1.08	0.100	0.300		mg/L	1	05/22/17 03:38 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/22/17 03:38 PM
Sodium	60.5	1.00	3.00		mg/L	10	05/23/17 11:20 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/22/17 03:38 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **RO**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/22/17 01:35 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	134	10.0	20.0		mg/L @ pH 4.5	1	05/24/17 01:12 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.5	1	05/24/17 01:12 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.5	1	05/24/17 01:12 PM
Alkalinity, Total (As CaCO3)	134	20.0	20.0		mg/L @ pH 4.5	1	05/24/17 01:12 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level
C	Sample Result or QC discussed in the Case Narrative
E	TPH pattern not Gas or Diesel Range Pattern
MDL	Method Detection Limit
RL	Reporting Limit
B	Analyte detected in the associated Method Blank
DF	Dilution Factor
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *25-May-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (55476)
Lab Order: 1705217

Client Sample ID: MW-9A
Lab ID: 1705217-04
Alternate ID: S171371641
Collection Date: 05/17/17 09:10 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.00573	0.00500	0.0100	J	mg/L	1	05/23/17 01:17 PM
Dissolved Molybdenum	0.0833	0.00200	0.00500		mg/L	1	05/23/17 01:17 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/22/17 04:18 PM
Arsenic	0.0104	0.00200	0.00500		mg/L	1	05/22/17 04:18 PM
Barium	0.0894	0.00300	0.0100		mg/L	1	05/22/17 04:18 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/22/17 04:18 PM
Boron	3.53	0.100	0.300		mg/L	10	05/23/17 11:58 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/22/17 04:18 PM
Calcium	61.6	1.00	3.00		mg/L	10	05/23/17 11:58 AM
Chromium	0.00561	0.00200	0.00500		mg/L	1	05/22/17 04:18 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	05/22/17 04:18 PM
Lead	0.00173	0.000300	0.00100		mg/L	1	05/22/17 04:18 PM
Lithium	0.00637	0.00500	0.0100	J	mg/L	1	05/22/17 04:18 PM
Magnesium	8.32	0.100	0.300		mg/L	1	05/22/17 04:18 PM
Molybdenum	0.0804	0.00200	0.00500		mg/L	1	05/22/17 04:18 PM
Potassium	0.959	0.100	0.300		mg/L	1	05/22/17 04:18 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/22/17 04:18 PM
Sodium	65.1	1.00	3.00		mg/L	10	05/23/17 11:58 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/22/17 04:18 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **RO**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/22/17 02:20 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	134	10.0	20.0		mg/L @ pH 4.5	1	05/24/17 01:23 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.5	1	05/24/17 01:23 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.5	1	05/24/17 01:23 PM
Alkalinity, Total (As CaCO3)	134	20.0	20.0		mg/L @ pH 4.5	1	05/24/17 01:23 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level
C	Sample Result or QC discussed in the Case Narrative
E	TPH pattern not Gas or Diesel Range Pattern
MDL	Method Detection Limit
RL	Reporting Limit
B	Analyte detected in the associated Method Blank
DF	Dilution Factor
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *25-May-17*

CLIENT:	B-Environmental	**Client Sample ID:**	BV-21
Project:	Coleto Creek Power	**Lab ID:**	1705217-05
Project No:	CCR (55476)	**Alternate ID:**	S171371642
Lab Order:	1705217	**Collection Date:**	05/17/17 01:08 PM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.00550	0.00500	0.0100	J	mg/L	1	05/23/17 01:19 PM
Dissolved Molybdenum	0.00290	0.00200	0.00500	J	mg/L	1	05/23/17 01:19 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/22/17 04:20 PM
Arsenic	0.117	0.00200	0.00500		mg/L	1	05/22/17 04:20 PM
Barium	0.0944	0.00300	0.0100		mg/L	1	05/22/17 04:20 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/22/17 04:20 PM
Boron	0.709	0.100	0.300		mg/L	10	05/23/17 12:00 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/22/17 04:20 PM
Calcium	74.3	1.00	3.00		mg/L	10	05/23/17 12:00 PM
Chromium	0.00309	0.00200	0.00500	J	mg/L	1	05/22/17 04:20 PM
Cobalt	0.00878	0.00300	0.00500		mg/L	1	05/22/17 04:20 PM
Lead	0.000724	0.000300	0.00100	J	mg/L	1	05/22/17 04:20 PM
Lithium	<0.00500	0.00500	0.0100		mg/L	1	05/22/17 04:20 PM
Magnesium	7.96	0.100	0.300		mg/L	1	05/22/17 04:20 PM
Molybdenum	0.00267	0.00200	0.00500	J	mg/L	1	05/22/17 04:20 PM
Potassium	0.877	0.100	0.300		mg/L	1	05/22/17 04:20 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/22/17 04:20 PM
Sodium	62.6	1.00	3.00		mg/L	10	05/23/17 12:00 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/22/17 04:20 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **RO**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/22/17 02:22 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	237	10.0	20.0		mg/L @ pH 4.52	1	05/24/17 01:32 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	05/24/17 01:32 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	05/24/17 01:32 PM
Alkalinity, Total (As CaCO3)	237	20.0	20.0		mg/L @ pH 4.52	1	05/24/17 01:32 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *25-May-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (55476)
Lab Order: 1705217

Client Sample ID: BV-22
Lab ID: 1705217-06
Alternate ID: S171371643
Collection Date: 05/17/17 01:46 PM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.00650	0.00500	0.0100	J	mg/L	1	05/23/17 01:21 PM
Dissolved Molybdenum	0.00869	0.00200	0.00500		mg/L	1	05/23/17 01:21 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/22/17 04:22 PM
Arsenic	0.00719	0.00200	0.00500		mg/L	1	05/22/17 04:22 PM
Barium	0.0455	0.00300	0.0100		mg/L	1	05/22/17 04:22 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/22/17 04:22 PM
Boron	0.641	0.100	0.300		mg/L	10	05/23/17 12:02 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/22/17 04:22 PM
Calcium	64.7	1.00	3.00		mg/L	10	05/23/17 12:02 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	05/22/17 04:22 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	05/22/17 04:22 PM
Lead	0.000638	0.000300	0.00100	J	mg/L	1	05/22/17 04:22 PM
Lithium	0.00647	0.00500	0.0100	J	mg/L	1	05/22/17 04:22 PM
Magnesium	9.62	0.100	0.300		mg/L	1	05/22/17 04:22 PM
Molybdenum	0.00889	0.00200	0.00500		mg/L	1	05/22/17 04:22 PM
Potassium	0.977	0.100	0.300		mg/L	1	05/22/17 04:22 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/22/17 04:22 PM
Sodium	62.0	1.00	3.00		mg/L	10	05/23/17 12:02 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/22/17 04:22 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **RO**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/22/17 02:25 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	235	10.0	20.0		mg/L @ pH 4.51	1	05/24/17 01:40 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	05/24/17 01:40 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	05/24/17 01:40 PM
Alkalinity, Total (As CaCO3)	235	20.0	20.0		mg/L @ pH 4.51	1	05/24/17 01:40 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level
C	Sample Result or QC discussed in the Case Narrative
E	TPH pattern not Gas or Diesel Range Pattern
MDL	Method Detection Limit
RL	Reporting Limit
B	Analyte detected in the associated Method Blank
DF	Dilution Factor
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *25-May-17*

CLIENT: B-Environmental
Work Order: 1705217
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_170522C

The QC data in batch 80558 applies to the following samples: 1705217-01A, 1705217-02A, 1705217-03A, 1705217-04A, 1705217-05A, 1705217-06A

Sample ID	MB-80558	Batch ID:	80558	TestNo:	SW7470A	Units:	mg/L
SampType:	MBLK	Run ID:	CETAC2_HG_170522	Analysis Date:	5/22/2017 1:28:18 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.0000800	0.000200								

Sample ID	LCS-80558	Batch ID:	80558	TestNo:	SW7470A	Units:	mg/L
SampType:	LCS	Run ID:	CETAC2_HG_170522	Analysis Date:	5/22/2017 1:30:34 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00205	0.000200	0.00200	0	103	85	115			

Sample ID	LCSD-80558	Batch ID:	80558	TestNo:	SW7470A	Units:	mg/L
SampType:	LCSD	Run ID:	CETAC2_HG_170522	Analysis Date:	5/22/2017 1:32:50 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00205	0.000200	0.00200	0	103	85	115	0	15	

Sample ID	1705217-03A SD	Batch ID:	80558	TestNo:	SW7470A	Units:	mg/L
SampType:	SD	Run ID:	CETAC2_HG_170522	Analysis Date:	5/22/2017 1:37:23 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.000400	0.00100	0	0				0	10	

Sample ID	1705217-03A PDS	Batch ID:	80558	TestNo:	SW7470A	Units:	mg/L
SampType:	PDS	Run ID:	CETAC2_HG_170522	Analysis Date:	5/22/2017 1:39:38 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00239	0.000200	0.00250	0	95.6	85	115			

Sample ID	1705217-03A MS	Batch ID:	80558	TestNo:	SW7470A	Units:	mg/L
SampType:	MS	Run ID:	CETAC2_HG_170522	Analysis Date:	5/22/2017 1:41:54 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00207	0.000200	0.00200	0	104	80	120			

Sample ID	1705217-03A MSD	Batch ID:	80558	TestNo:	SW7470A	Units:	mg/L
SampType:	MSD	Run ID:	CETAC2_HG_170522	Analysis Date:	5/22/2017 1:44:09 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00209	0.000200	0.00200	0	104	80	120	0.962	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705217
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170522A

The QC data in batch 80552 applies to the following samples: 1705217-01A, 1705217-02A, 1705217-03A, 1705217-04A, 1705217-05A, 1705217-06A

Sample ID **MB-80552** Batch ID: **80552** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS4_170522A** Analysis Date: **5/22/2017 3:30:00 PM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.000800	0.00250								
Arsenic	<0.00200	0.00500								
Barium	<0.00300	0.0100								
Beryllium	<0.000300	0.00100								
Cadmium	<0.000300	0.00100								
Calcium	<0.100	0.300								
Chromium	<0.00200	0.00500								
Cobalt	<0.00300	0.00500								
Lead	<0.000300	0.00100								
Lithium	<0.00500	0.0100								
Magnesium	<0.100	0.300								
Molybdenum	<0.00200	0.00500								
Potassium	<0.100	0.300								
Selenium	<0.00200	0.00500								
Sodium	<0.100	0.300								
Thallium	<0.000500	0.00150								

Sample ID **LCS-80552** Batch ID: **80552** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS4_170522A** Analysis Date: **5/22/2017 3:32:00 PM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.192	0.00250	0.200	0	95.9	80	120			
Arsenic	0.198	0.00500	0.200	0	99.2	80	120			
Barium	0.190	0.0100	0.200	0	95.0	80	120			
Beryllium	0.198	0.00100	0.200	0	99.1	80	120			
Cadmium	0.196	0.00100	0.200	0	97.8	80	120			
Calcium	4.97	0.300	5.00	0	99.3	80	120			
Chromium	0.200	0.00500	0.200	0	100	80	120			
Cobalt	0.201	0.00500	0.200	0	100	80	120			
Lead	0.195	0.00100	0.200	0	97.4	80	120			
Lithium	0.198	0.0100	0.200	0	99.1	80	120			
Magnesium	5.02	0.300	5.00	0	100	80	120			
Molybdenum	0.192	0.00500	0.200	0	95.9	80	120			
Potassium	5.04	0.300	5.00	0	101	80	120			
Selenium	0.198	0.00500	0.200	0	99.0	80	120			
Sodium	4.99	0.300	5.00	0	99.8	80	120			
Thallium	0.197	0.00150	0.200	0	98.3	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705217
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170522A

Sample ID **LCSD-80552** Batch ID: **80552** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS4_170522A** Analysis Date: **5/22/2017 3:34:00 PM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.193	0.00250	0.200	0	96.6	80	120	0.707	15	
Arsenic	0.199	0.00500	0.200	0	99.4	80	120	0.265	15	
Barium	0.190	0.0100	0.200	0	95.0	80	120	0.006	15	
Beryllium	0.199	0.00100	0.200	0	99.5	80	120	0.475	15	
Cadmium	0.196	0.00100	0.200	0	98.2	80	120	0.424	15	
Calcium	4.99	0.300	5.00	0	99.8	80	120	0.452	15	
Chromium	0.203	0.00500	0.200	0	101	80	120	1.41	15	
Cobalt	0.202	0.00500	0.200	0	101	80	120	0.468	15	
Lead	0.196	0.00100	0.200	0	98.2	80	120	0.750	15	
Lithium	0.197	0.0100	0.200	0	98.4	80	120	0.696	15	
Magnesium	5.08	0.300	5.00	0	102	80	120	1.07	15	
Molybdenum	0.194	0.00500	0.200	0	96.8	80	120	0.894	15	
Potassium	5.11	0.300	5.00	0	102	80	120	1.41	15	
Selenium	0.198	0.00500	0.200	0	99.0	80	120	0.065	15	
Sodium	5.01	0.300	5.00	0	100	80	120	0.505	15	
Thallium	0.198	0.00150	0.200	0	98.9	80	120	0.574	15	

Sample ID **1705217-03A SD** Batch ID: **80552** TestNo: **SW6020A** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS4_170522A** Analysis Date: **5/22/2017 3:40:00 PM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.00400	0.0125	0	0				0	10	
Arsenic	<0.0100	0.0250	0	0.00958				0	10	
Barium	0.0990	0.0500	0	0.101				1.73	10	
Beryllium	<0.00150	0.00500	0	0				0	10	
Cadmium	<0.00150	0.00500	0	0				0	10	
Chromium	<0.0100	0.0250	0	0.00345				0	10	
Cobalt	<0.0150	0.0250	0	0.00305				0	10	
Lead	0.00384	0.00500	0	0.00377				1.89	10	
Lithium	<0.0250	0.0500	0	0.00590				0	10	
Magnesium	7.15	1.50	0	7.00				2.15	10	
Molybdenum	0.0910	0.0250	0	0.0900				1.12	10	
Potassium	1.11	1.50	0	1.08				2.39	10	
Selenium	<0.0100	0.0250	0	0				0	10	
Thallium	<0.00250	0.00750	0	0				0	10	

Sample ID **1705217-03A PDS** Batch ID: **80552** TestNo: **SW6020A** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS4_170522A** Analysis Date: **5/22/2017 4:00:00 PM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.122	0.00250	0.200	0	60.8	80	120			S

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705217
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170522A

Sample ID 1705217-03A PDS	Batch ID: 80552	TestNo: SW6020A	Units: mg/L
SampType: PDS	Run ID: ICP-MS4_170522A	Analysis Date: 5/22/2017 4:00:00 PM	Prep Date: 5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.208	0.00500	0.200	0.00958	99.3	80	120			
Barium	0.285	0.0100	0.200	0.101	91.9	80	120			
Beryllium	0.189	0.00100	0.200	0	94.5	80	120			
Cadmium	0.191	0.00100	0.200	0	95.5	80	120			
Chromium	0.202	0.00500	0.200	0.00345	99.4	80	120			
Cobalt	0.196	0.00500	0.200	0.00305	96.6	80	120			
Lead	0.196	0.00100	0.200	0.00377	96.3	80	120			
Lithium	0.183	0.0100	0.200	0.00590	88.5	80	120			
Magnesium	11.1	0.300	5.00	7.00	82.1	80	120			
Molybdenum	0.274	0.00500	0.200	0.0899	91.8	80	120			
Potassium	5.81	0.300	5.00	1.08	94.5	80	120			
Selenium	0.189	0.00500	0.200	0	94.3	80	120			
Thallium	0.195	0.00150	0.200	0	97.3	80	120			

Sample ID 1705217-03A MS	Batch ID: 80552	TestNo: SW6020A	Units: mg/L
SampType: MS	Run ID: ICP-MS4_170522A	Analysis Date: 5/22/2017 4:02:00 PM	Prep Date: 5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.190	0.00250	0.200	0	95.2	80	120			
Arsenic	0.211	0.00500	0.200	0.00958	101	80	120			
Barium	0.280	0.0100	0.200	0.101	89.8	80	120			
Beryllium	0.191	0.00100	0.200	0	95.3	80	120			
Cadmium	0.191	0.00100	0.200	0	95.7	80	120			
Chromium	0.199	0.00500	0.200	0.00345	97.6	80	120			
Cobalt	0.199	0.00500	0.200	0.00305	97.9	80	120			
Lead	0.198	0.00100	0.200	0.00377	97.0	80	120			
Lithium	0.192	0.0100	0.200	0.00590	93.1	80	120			
Magnesium	11.4	0.300	5.00	7.00	88.9	80	120			
Molybdenum	0.280	0.00500	0.200	0.0899	95.1	80	120			
Potassium	5.91	0.300	5.00	1.08	96.5	80	120			
Selenium	0.194	0.00500	0.200	0	96.8	80	120			
Thallium	0.198	0.00150	0.200	0	98.8	80	120			

Sample ID 1705217-03A MSD	Batch ID: 80552	TestNo: SW6020A	Units: mg/L
SampType: MSD	Run ID: ICP-MS4_170522A	Analysis Date: 5/22/2017 4:04:00 PM	Prep Date: 5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.187	0.00250	0.200	0	93.5	80	120	1.83	15	
Arsenic	0.205	0.00500	0.200	0.00958	97.9	80	120	2.64	15	
Barium	0.273	0.0100	0.200	0.101	86.3	80	120	2.50	15	
Beryllium	0.185	0.00100	0.200	0	92.5	80	120	2.97	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705217
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170522A

Sample ID **1705217-03A MSD** Batch ID: **80552** TestNo: **SW6020A** Units: **mg/L**
SampType: **MSD** Run ID: **ICP-MS4_170522A** Analysis Date: **5/22/2017 4:04:00 PM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.185	0.00100	0.200	0	92.5	80	120	3.37	15	
Chromium	0.194	0.00500	0.200	0.00345	95.2	80	120	2.41	15	
Cobalt	0.193	0.00500	0.200	0.00305	94.9	80	120	3.07	15	
Lead	0.192	0.00100	0.200	0.00377	93.9	80	120	3.14	15	
Lithium	0.185	0.0100	0.200	0.00590	89.5	80	120	3.89	15	
Magnesium	11.3	0.300	5.00	7.00	85.6	80	120	1.43	15	
Molybdenum	0.272	0.00500	0.200	0.0899	91.2	80	120	2.79	15	
Potassium	5.84	0.300	5.00	1.08	95.2	80	120	1.11	15	
Selenium	0.191	0.00500	0.200	0	95.3	80	120	1.54	15	
Thallium	0.195	0.00150	0.200	0	97.5	80	120	1.38	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705217
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170523A

The QC data in batch 80552 applies to the following samples: 1705217-01A, 1705217-02A, 1705217-03A, 1705217-04A, 1705217-05A, 1705217-06A

Sample ID	MB-80552	Batch ID:	80552	TestNo:	SW6020A	Units:	mg/L
SampType:	MBLK	Run ID:	ICP-MS4_170523A	Analysis Date:	5/23/2017 11:12:00 AM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	<0.0100	0.0300								

Sample ID	LCS-80552	Batch ID:	80552	TestNo:	SW6020A	Units:	mg/L
SampType:	LCS	Run ID:	ICP-MS4_170523A	Analysis Date:	5/23/2017 11:14:00 AM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.204	0.0300	0.200	0	102	80	120			

Sample ID	LCSD-80552	Batch ID:	80552	TestNo:	SW6020A	Units:	mg/L
SampType:	LCSD	Run ID:	ICP-MS4_170523A	Analysis Date:	5/23/2017 11:16:00 AM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.205	0.0300	0.200	0	103	80	120	0.702	15	

Sample ID	1705217-03A SD	Batch ID:	80552	TestNo:	SW6020A	Units:	mg/L
SampType:	SD	Run ID:	ICP-MS4_170523A	Analysis Date:	5/23/2017 11:22:00 AM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	3.40	1.50	0	3.18				6.88	10	
Calcium	52.2	15.0	0	53.3				1.96	10	
Sodium	59.1	15.0	0	60.5				2.30	10	

Sample ID	1705217-03A PDS	Batch ID:	80552	TestNo:	SW6020A	Units:	mg/L
SampType:	PDS	Run ID:	ICP-MS4_170523A	Analysis Date:	5/23/2017 11:40:00 AM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	5.30	0.300	2.00	3.18	106	80	120			
Calcium	104	3.00	50.0	53.3	102	80	120			
Sodium	115	3.00	50.0	60.5	109	80	120			

Sample ID	1705217-03A MS	Batch ID:	80552	TestNo:	SW6020A	Units:	mg/L
SampType:	MS	Run ID:	ICP-MS4_170523A	Analysis Date:	5/23/2017 11:42:00 AM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	3.22	0.300	0.200	3.18	22.9	80	120			S
Calcium	55.9	3.00	5.00	53.3	53.0	80	120			S
Sodium	68.4	3.00	5.00	60.5	158	80	120			S

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

Batch # 55476

CLIENT: B-Environmental
Work Order: 1705217
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170523A

Sample ID **1705217-03A MSD** Batch ID: **80552** TestNo: **SW6020A** Units: **mg/L**
SampType: **MSD** Run ID: **ICP-MS4_170523A** Analysis Date: **5/23/2017 11:44:00 AM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	3.27	0.300	0.200	3.18	48.0	80	120	1.55	15	S
Calcium	55.8	3.00	5.00	53.3	49.9	80	120	0.276	15	S
Sodium	67.2	3.00	5.00	60.5	136	80	120	1.67	15	S

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705217
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170523A

The QC data in batch 80556 applies to the following samples: 1705217-01B, 1705217-02B, 1705217-03B, 1705217-04B, 1705217-05B, 1705217-06B

Sample ID **MB-80556** Batch ID: **80556** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS4_170523A** Analysis Date: **5/23/2017 12:31:00 PM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.00500	0.0100								
Molybdenum	<0.00200	0.00500								

Sample ID **LCS-80556** Batch ID: **80556** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS4_170523A** Analysis Date: **5/23/2017 12:33:00 PM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.203	0.0100	0.200	0	101	80	120			
Molybdenum	0.198	0.00500	0.200	0	99.1	80	120			

Sample ID **LCSD-80556** Batch ID: **80556** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS4_170523A** Analysis Date: **5/23/2017 12:35:00 PM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.208	0.0100	0.200	0	104	80	120	2.70	15	
Molybdenum	0.204	0.00500	0.200	0	102	80	120	3.07	15	

Sample ID **1705217-03B SD** Batch ID: **80556** TestNo: **SW6020A** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS4_170523A** Analysis Date: **5/23/2017 12:41:00 PM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.0250	0.0500	0	0.00500				0	10	
Molybdenum	0.0960	0.0250	0	0.0915				4.78	10	

Sample ID **1705217-03B PDS** Batch ID: **80556** TestNo: **SW6020A** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS4_170523A** Analysis Date: **5/23/2017 1:01:00 PM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.192	0.0100	0.200	0.00500	93.5	80	120			
Molybdenum	0.279	0.00500	0.200	0.0915	93.7	80	120			

Sample ID **1705217-03B MS** Batch ID: **80556** TestNo: **SW6020A** Units: **mg/L**
SampType: **MS** Run ID: **ICP-MS4_170523A** Analysis Date: **5/23/2017 1:03:00 PM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Lithium	0.199	0.0100	0.200	0.00500	96.8	80	120			
Dissolved Molybdenum	0.299	0.00500	0.200	0.0915	104	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705217
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170523A

Sample ID **1705217-03B MSD**	Batch ID: **80556**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **MSD**	Run ID: **ICP-MS4_170523A**	Analysis Date: **5/23/2017 1:05:00 PM**	Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Lithium	0.193	0.0100	0.200	0.00500	94.2	80	120	2.62	15	
Dissolved Molybdenum	0.290	0.00500	0.200	0.0915	99.3	80	120	3.10	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705217
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_170524B

The QC data in batch 80594 applies to the following samples: 1705217-01C, 1705217-02C, 1705217-03C, 1705217-04C, 1705217-05C, 1705217-06C

Sample ID **MB-80594** Batch ID: **80594** TestNo: **M2320 B** Units: **mg/L @ pH 4.24**
SampType: **MBLK** Run ID: **TITRATOR_170524B** Analysis Date: **5/24/2017 10:09:00 AM** Prep Date: **5/24/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0								
Alkalinity, Total (As CaCO3)	<20.0	20.0								

Sample ID **LCS-80594** Batch ID: **80594** TestNo: **M2320 B** Units: **mg/L @ pH 4**
SampType: **LCS** Run ID: **TITRATOR_170524B** Analysis Date: **5/24/2017 10:13:00 AM** Prep Date: **5/24/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	51.8	20.0	50.00	0	104	74	129			

Sample ID **1705217-03C-DUP** Batch ID: **80594** TestNo: **M2320 B** Units: **mg/L @ pH 4.51**
SampType: **DUP** Run ID: **TITRATOR_170524B** Analysis Date: **5/24/2017 1:17:00 PM** Prep Date: **5/24/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	133	20.0	0	133.5				0.375	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	133	20.0	0	133.5				0.375	20	

Sample ID **1705238-01C-DUP** Batch ID: **80594** TestNo: **M2320 B** Units: **mg/L @ pH 4.48**
SampType: **DUP** Run ID: **TITRATOR_170524B** Analysis Date: **5/24/2017 2:14:00 PM** Prep Date: **5/24/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	<10.0	20.0	0	10.00				0	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	<20.0	20.0	0	0				0	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

2609 North River Road, Port Allen, Louisiana 70767
(800) 401-4277 -- FAX (225) 381-2996

ARS International, LLC

Laboratory Analysis Report

ARS1-17-01440

Prepared for:

B-Environmental

Kevin Baros
1606 East Brazos Street
Suite D
Victoria, TX 77901

dbenviro@suddenlinkmail.com; cbenviro@suddenlinkmail.com
swbenviro@suddenlinkmail.com

Phone: 361-572-8224
Fax: 361-572-4115

Project Manager Review

Management Review

Notes: ARS International, LLC assumes no liability for the use or the interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

Contact Person: Questions regarding this analytical report should be addressed to:

Project Manager
ProjectManagers@amrad.com

Phone: 225.381.2991
Fax: 225.381.2996

LELAP Cert# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01440
Client Sample ID: S171371636 (BATCH 55476)
Sample Collection Date: 05/16/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01440-001
Date Received: 05/22/17
Report Date: 06/16/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CDRL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.183	0.144	0.209	0.087	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/06/17 7:35	SCAUSEY	94%
Ra-228	-0.415	0.652	1.235	0.576	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	05/30/17 12:46	SCAUSEY	99%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01440
Client Sample ID: S171371639 (BATCH 55476)
Sample Collection Date: 05/16/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01440-002
Date Received: 05/22/17
Report Date: 06/16/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CDRL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.342	0.178	0.205	0.083	NP		pCi/L	ARS-010/EPA 903.0/904.0	06/06/17 7:35	SCAUSEY	96%
Ra-228	0.039	0.664	1.191	0.554	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	05/30/17 12:46	SCAUSEY	92%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01440
Client Sample ID: S171371640 (BATCH 55476)
Sample Collection Date: 05/17/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01440-003
Date Received: 05/22/17
Report Date: 06/16/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CDRL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.360	0.170	0.176	0.070	NP		pCi/L	ARS-010/EPA 903.0/904.0	06/06/17 7:35	SCAUSEY	102%
Ra-228	-0.004	0.616	1.114	0.517	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	05/30/17 12:46	SCAUSEY	96%

Project Manager Review

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01440
Client Sample ID: S1713716461 (BATCH 55476)
Sample Collection Date: 05/17/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01440-004
Date Received: 05/22/17
Report Date: 06/16/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CDRL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.482	0.204	0.185	0.072	NP		pCi/L	ARS-010/EPA 903.0/904.0	06/06/17 7:35	SCAUSEY	91%
Ra-228	1.122	0.747	1.137	0.527	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	05/30/17 12:46	SCAUSEY	90%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01440
Client Sample ID: S171371642 (BATCH 55476)
Sample Collection Date: 05/17/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01440-005
Date Received: 05/22/17
Report Date: 06/16/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CDRL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.100	0.097	0.139	0.050	NP	U,Q	pCi/L	ARS-010/EPA 903.0/904.0	06/14/17 7:44	SCAUSEY	109%
Ra-228	0.819	0.770	1.243	0.577	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/07/17 12:30	SCAUSEY	94%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01440
Client Sample ID: S171371643 (BATCH 55476)
Sample Collection Date: 05/17/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01440-006
Date Received: 05/22/17
Report Date: 06/16/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CDRL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.474	0.185	0.149	0.056	NP	Q	pCi/L	ARS-010/EPA 903.0/904.0	06/14/17 7:44	SCAUSEY	102%
Ra-228	0.148	0.668	1.184	0.548	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/07/17 12:30	SCAUSEY	87%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

Batch # 55476

INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

QC Results Report

Sample Delivery Group: ARS1-17-01347;1440

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-01040	LCS	RA-226	30.504	4.906	0.092	30.667	N/A	pCi/L	ARS-010/EPA 903	6/6/17 9:35	SC	99	75%-125%
ARS1-B17-01040	LCS	RA-228	39.143	6.485	1.035	39.784	N/A	pCi/L	ARS-010/EPA 904	5/30/17 14:45	SC	98	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-01040	MBL	RA-226	0.013	0.041	0.080	NA	U	pCi/L	ARS-010/EPA 903	6/6/17 9:35	SC
ARS1-B17-01040	MBL	RA-228	-0.143	0.316	0.589	NA	U	pCi/L	ARS-010/EPA 904	5/30/17 14:45	SC

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-01040	LCSD	RA-226	30.504	4.906	29.843	4.808	N/A	pCi/L	ARS-010/EPA 903	6/6/17 9:35	SC	0.07	< 1
ARS1-B17-01040	LCSD	RA-228	39.143	6.485	38.135	6.316	N/A	pCi/L	ARS-010/EPA 904	5/30/17 14:45	SC	0.08	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-01040	LCSD	RA-226	30.504	4.906	29.843	4.808	N/A	pCi/L	ARS-010/EPA 903	6/6/17 9:35	SC	0.10	< 3
ARS1-B17-01040	LCSD	RA-228	39.143	6.485	38.135	6.316	N/A	pCi/L	ARS-010/EPA 904	5/30/17 14:45	SC	0.11	< 3

Matrix Spike

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery(%)	MS Acceptance Range
ARS1-B17-01040	MS	Ra-226	53.461	8.618	0.151	55.313	N/A	pCi/L	ARS-010/EPA 903	6/6/17 9:35	SC	97	60%-140%
ARS1-B17-01040	MS	Ra-228	38.798	6.505	1.053	52.653	N/A	pCi/L	ARS-010/EPA 904	5/30/17 14:45	SC	74	60%-140%
ARS1-B17-01040	MSD	Ra-226	55.386	8.917	0.151	55.240	N/A	pCi/L	ARS-010/EPA 903	6/6/17 9:35	SC	100	60%-140%
ARS1-B17-01040	MSD	Ra-228	44.076	7.343	1.350	52.498	N/A	pCi/L	ARS-010/EPA 904	5/30/17 14:45	SC	84	60%-140%

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

Batch # 55476

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

INTERNATIONAL

QC Results Report

Sample Delivery Group: ARS1-17-01440;1447

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-01065	LCSD	RA-226	30.548	4.919	0.098	27.562	N/A	pCi/L	ARS-010/EPA 903	6/14/17 9:43	SC	111	75%-125%
ARS1-B17-01065	LCS	RA-228	34.618	5.816	1.169	39.784	N/A	pCi/L	ARS-010/EPA 904	6/7/17 14:30	SC	87	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-01065	MBL	RA-226	0.194	0.095	0.096	NA		pCi/L	ARS-010/EPA 903	6/14/17 9:43	SC
ARS1-B17-01065	MBL	RA-228	-0.002	0.394	0.709	NA	U	pCi/L	ARS-010/EPA 904	6/7/17 14:30	SC

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-01065	LCS	RA-226	30.548	4.919	36.562	5.864	N/A	pCi/L	ARS-010/EPA 903	6/14/17 9:43	SC	0.56	< 1
ARS1-B17-01065	LCSD	RA-228	34.618	5.816	26.300	4.492	N/A	pCi/L	ARS-010/EPA 904	6/7/17 14:30	SC	0.81	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-01065	LCS	RA-226	30.548	4.919	36.562	5.864	N/A	pCi/L	ARS-010/EPA 903	6/14/17 9:43	SC	0.79	< 3
ARS1-B17-01065	LCSD	RA-228	34.618	5.816	26.300	4.492	N/A	pCi/L	ARS-010/EPA 904	6/7/17 14:30	SC	1.13	< 3

Matrix Spike

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery(%)	MS Acceptance Range
ARS1-B17-01065	MS	Ra-226	72.089	11.565	0.139	56.066	N/A	pCi/L	ARS-010/EPA 903	6/14/17 9:43	SC	129	60%-140%
ARS1-B17-01065	MS	Ra-228	40.905	6.890	1.560	52.566	N/A	pCi/L	ARS-010/EPA 904	6/7/17 14:30	SC	78	60%-140%
ARS1-B17-01065	MSD	Ra-226	59.961	9.641	0.154	55.743	N/A	pCi/L	ARS-010/EPA 903	6/14/17 9:43	SC	108	60%-140%
ARS1-B17-01065	MSD	Ra-228	39.907	6.747	1.590	52.514	N/A	pCi/L	ARS-010/EPA 904	6/7/17 14:30	SC	76	60%-140%

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

ARS INTERNATIONAL

2609 North River Road • Port Allen, Louisiana 70767

1 (800) 401-4277 • Fax (225) 381-2996

Notes (Case Narrative):

Comments:

1.0) All MDA/MDC values are calculated on a sample specific basis.
2.0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.
3.0) Data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.
4.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix. Modified analyses are indicated by the subsequent addition of "m" to the procedure number (i.e. 900.0M).
5.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than the actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
6.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228 (Gamma Spectroscopy only).
7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234 (Gamma Spectroscopy only).
8.0) All gamma spectroscopy was performed utilizing high purity germanium detectors (**HPGe**).
9.0) ARS makes every attempt to match sample density to calibrated density; however, in some cases, it is not practical or possible to do so and data results may be affected (Gamma Spectroscopy only).
10.0) Gamma spectroscopy results are calculated values based on the **ORTEC®** GammaVision ENV32 Analysis Engine.
11.0) ACLASS DOD and ISO 17025 certification applies only to the following analytes and methods: Gross Alpha and Gross Beta (EPA 900, SM7110B&C, SW846 9310); Radium 226 (EPA 903, EPA 903.1, SM 7500 Ra-B, SW846 9315); Radium 228 (EPA 904, SM 7500 Ra-B SW846 9320); Iodine-131(EPA 901.1); Uranium by ICPMS (EPA 200.8); Strontium 89/90 (EPA 905, Eichrom SRW01, HASL 300 Sr-03-RC); Tritium (EPA 906, EPA 906M); Gamma Emitters (EPA 901.1, SM7120B, HASL 300 Ga-01-R); Americium-241, Curium 242/244, Plutonium 239/240 and 241, Thorium 228/230/232, Uranium 234/233 and 238 (Eichrom ACW03 VBS); Lead 210 (HASL 300 Pb-01-RC, Eichrom OTW01); Polonium 210 (HASL 300 Po-01-RC, HASL 300 Po-02-RC); Technetium-99 (Eichrom TCW02, Eichrom TCS01M).

Method References:

1.0) **EPA 600/4-80-032**; Prescribed Procedures for the Measurements of Radioactivity in Drinking Water, August 1980.
2.0) **Standard Methods for the Examination of Water and Wastewater** (On-Line Edition)
3.0) **EPA SW-846**; Test Methods for Evaluating Solid Waste, (On-Line edition)
4.0) **EPA 600/4/79-020**; Methods for Chemical Analysis of Water and Waste, March 1983.
5.0) **HASL 300**; The Procedures Manual of the Environmental Measurements Laboratory, Volume I, 28th Edition February, 1997.

Definitions:

CRDL	Contract Required Detection Limit
CSU	Combined Standard Uncertainty
DLC	Decision Level Concentration (ANSI N42.23) or critical level
DO	Duplicate Original
DUP	Method Duplicate
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
MDA	Minimum Detectable Activity
MDC	(Minimum Detectable Concentration) minimum concentration of the analyte that ARS can detect utilizing the specific analysis
MBL	Method Blank
MS/MSD	Matrix Spike/Matrix Spike Duplicate
N/A	Not Applicable
NP	Not Provided
NR	Not Referenced
LOD	Limit of Detection
LOQ	Limit of Quantitation

Data Qualifiers:

B	The analyte is found in both the associated method blank and the sample. This flag indicates probable blank contamination.
D	Sample analysis accomplished through dilution.
J	The reported result is an estimated value above the limit of detection but outside of quantitation range (e.g., matrix interference was observed).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).
U	Activity is below the MDC, MDA, MDL, or LOD
N	The analyte is a tentatively identified compound using mass spectrometry or any non-customer requested compounds that are tentatively identified.
*	LCS/LCSD or MS/MSD fails RPD criteria.
S	Spike
SC	Subcontracted out to another qualified laboratory
H	Holding time exceeded

BEN Environmental

Chain of Custody Record

Batch # 55476

TEMP UN-C: 3.1 | Page 1 of 2

THERM ID# 3 | TEMP Corr: 2.9

Customer / Report Information

Name: Coleto Creek Power
Attention: Rick Coleman
Address:

Billing Information

Check box if Billing is the same as Report Information
Address:
Attention: PO#:
Project:
Comments: CCR Sampling

Phone: 361 7885145 FAX:
EMAIL: Richard.Coleman@gynegy.com

Sample Information				Matrix	Container				Requested Analysis							Completed By Laboratory
Collected By:									Metals* B	Cl, F, SO4 C	DH	TDS A	Ra 226/228 E	Alk: TBE/CaCO3	Diss Li and D F	Custody Seals Present Yes ☐ No ☐ Intact Yes ☐ No ☐
Client / Field Sample ID	Collected Date	Collected Time	C=Composite G=Grab	DW - Drinking H20 S - Solid WW - Waste H20 SL - Sludge L - Liquid W - Water	TYPE	NUMBER	SIZE	Preservative								LAB Sample Number
MW-10	5-16-17	1528	G	W	P	6	1L 500 250	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3	X	X	X	X	X	X	X	S171371636
MW-10 A	5-16-17	1358						☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3								S171371639
MW-9	5-17-17	822						☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3								S171371640
MW-9 A	5-17-17	910						☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3								S171371641
MS - MW9	5-17-17	822						☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3								
MSD-MW9	5-17-17	822						☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3								
								☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3								

Required Turnaround: ☒ Routine (6-10 Business Days) Expedite / Rush: ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business Days ☐ 5 Business Days ☐ Other _____ REMARKS:

Surcharge will apply to RUSH TAT Authorized By: Container Type: P=Plastic, G=Glass, V=VOA, O=Other Carrier ID :

Relinquished By:		Date: 5-17-17	Time: 16:30	Received By:		Date: 5-17-17	Time: 16:30		
Relinquished By:		Date:	Time:	Received By:		Date:	Time:		
Relinquished By:		Date:	Time:	Received By:		Date:	Time:		

1606 E Brazos Suite D, Victoria, Texas 77901 Ph. (361) 572-8224 Fax (361) 572-4115 Toll Free 1-800-460-8223 Form #1000.0-2 REV.1.2 Email: kbenviro@suddenlinkmail.com www.benvironmental.net

Fluoride: 0.25mg/L; Metals: B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, Mg, K, Na, & Hg

D - Environmental

Chain of Custody Recor

Batch # 55476

TEMP UN-C: 3.1 | Page 2 of 2

THERM ID# 3 | TEMP Corr: 2.9

Customer / Report Information	Billing Information ☒ Check box if Billing is the same as Report Information	
Name: COLETO CREEK POWER	Address:	Phone: 361-788-5145 FAX:
Attention: RICK COLEMAN	Attention: PO#:	EMAIL: Richard.Coleman@dynegy.com
Address:	Project: Comments: CCR SAMPLING	Requested Analysis / Completed By Laboratory

Requested Analysis: B MetalsX; C Cl, F, SO4; PH; A TDS; E Ra226 & Ra228; D Alk: Tot Carb; Bi Carb; F Diss Li & Mo

Client / Field Sample ID	Collected Date	Collected Time	G=Grab C=Composite	Matrix (DW - Drinking H20, S - Solid, WW - Waste H20, SL - Sludge, L - Liquid, W - Water)	Container Type	Number	Size	Preservative	LAB Sample Number
BV-21	5-17-17	1308	G	W	P	6	1L/500/250	☒ HNO3, ☒ ICE	S171371642
BV-22	5-17-17	1346						☒ HNO3, ☒ ICE	S171371643
								☒ HNO3, ☒ ICE	
								☒ HNO3, ☒ ICE	
								☒ HNO3, ☒ ICE	
								☒ HNO3, ☒ ICE	
								☒ HNO3, ☒ ICE	

Preservative options: H2SO4, H3PO4, ICE, ____, HNO3, NaOH, HCL, Na2SO3

Custody Seals Present: Yes ☐ No ☐
Intact: Yes ☐ No ☐

Required Turnaround: ☒ Routine (6-10 Business Days) Expedite / Rush: ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business Days ☒ 5 Business Days ☐ Other ________ REMARKS:

Surcharge will apply to RUSH TAT Authorized By: | Container Type: P=Plastic, G=Glass, V=VOA, O=Other | Carrier ID :

Relinquished By:	Date:	Time:	Received By:	Date:	Time:
[signature]	5-17-17	1630	[signature]	5-17-17	16:30

Fluoride: 0.25 mg/L; Metals*: B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, Mg, K, Na, & Hg

Batch # 55338

BatchNo: 55338

SAMPLE REPORT

T104704328-17-14

Business

Coleto Creek Power - R Coleman
PO Box 8
Fannin TX 77960
Att: Rick Coleman

Laboratory

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901
ph. 361-572-8224

Reference Information

Project: CCR Sampling
Printed: Friday, June 23, 2017

Re: Coleto Creek Power - R Coleman

Dear: Rick Coleman

Attached are the results for sample(s) received on 5/15/2017

The analytical results relate only to the samples tested.
All supporting quality data meets the requirements of NELAC unless noted in the case narrative section of the report.

This report contains 7 pages (including the cover page)

If you have any questions concerning this report, please do not hesitate to call (361) 572-8224 or Fax us at (361) 572-4115

Respectfully Submitted,

Kevin Baros

Laboratory Director

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55338

Batch No: 55338

Sample Receipt Checklist

Date Received: 5/16/2017

Project	CCR Sampling	Received By:	Vahrenkamp

Login completed by: Vahrenkamp (Signature) 5/16/2017 (LoginDate:)

Carrier Name: Walk In

Shipping container/cooler in good condition?	☑ YES	☐ NO	☐ Not Present
Custody seals intact on shipping container/cooler?	☐ YES	☐ NO	☑ Not Present
Custody seals intact on sample bottles?	☐ YES	☐ NO	☑ Not Present
Chain of Custody present?	☑ YES	☐ NO	
Chain of Custody signed when relinquished and received	☑ YES	☐ NO	
Chain of Custody agrees with sample labels?	☑ YES	☐ NO	
Samples in proper container/bottles?	☑ YES	☐ NO	
Sample containers intact?	☑ YES	☐ NO	
Sufficient sample volume for indicated tests?	☑ YES	☐ NO	
All samples received within holding times?	☑ YES	☐ NO	
Container/Temp Blank - temperature in compliance?	☑ YES	☐ NO	>0 <6 °C On Ice
Water - VOA vials have zero headspace? Bubble < 6mm?	☐ YES	☐ NO	☑ No VOA Vials submitted
Water - pH acceptable upon receipt?	☑ YES	☐ NO	☐ Not Applicable

*TEMP 5.1/4.9 | pH Adjusted? No | Checked By L. Vahrenkamp

Any No and/or N/A (not applicable) response must be detailed in the comments section below.

Client contacted		PersonContacted	
Contacted by:		Date Contacted:	

Regarding:

Comments:
Therm. #3.

Corrective Action:

2609 North River Road, Port Allen, Louisiana 70767
(800) 401-4277 -- FAX (225) 381-2996

ARS International, LLC

Laboratory Analysis Report

ARS1-17-01444

Prepared for:

B-Environmental

Kevin Baros
1606 East Brazos Street
Suite D
Victoria, TX 77901

dbenviro@suddenlinkmail.com; cbenviro@suddenlinkmail.com
swbenviro@suddenlinkmail.com

Phone: 361-572-8224
Fax: 361-572-4115

Project Manager Review

Management Review

Notes: ARS International, LLC assumes no liability for the use or the interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

Contact Person: Questions regarding this analytical report should be addressed to:

Project Manager
ProjectManagers@amrad.com
Phone: 225.381.2991
Fax: 225.381.2996

ANAB ACCREDITED ISO/IEC 17025 DOD ELAP

LELAP Cert# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01444
Client Sample ID: S171361004 (BATCH 55338)
Sample Collection Date: 05/15/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01444-001
Date Received: 05/23/17
Report Date: 06/19/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CDRL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.183	0.121	0.148	0.056	NP		pCi/L	ARS-010/EPA 903.0/904.0	06/16/17 9:29	SCAUSEY	103%
Ra-228	0.563	0.640	1.056	0.489	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/09/17 12:32	SCAUSEY	97%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

INTERNATIONAL

QC Results Report

Sample Delivery Group: ARS1-17-01444

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-01106	LCS	RA-226	27.814	4.480	0.098	27.723	N/A	pCi/L	ARS-010/EPA 903	6/16/17 11:29	SC	100	75%-125%
ARS1-B17-01106	LCS	RA-228	32.901	5.513	1.063	39.784	N/A	pCi/L	ARS-010/EPA 904	6/9/17 14:31	SC	83	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-01106	MBL	RA-226	0.082	0.065	0.089	NA	U	pCi/L	ARS-010/EPA 903	6/16/17 11:29	SC
ARS1-B17-01106	MBL	RA-228	-0.087	0.371	0.681	NA	U	pCi/L	ARS-010/EPA 904	6/9/17 14:31	SC

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-01106	LCSD	RA-226	27.814	4.480	35.081	5.636	N/A	pCi/L	ARS-010/EPA 903	6/16/17 11:29	SC	0.72	< 1
ARS1-B17-01106	LCSD	RA-228	32.901	5.513	34.717	5.792	N/A	pCi/L	ARS-010/EPA 904	6/9/17 14:31	SC	0.16	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-01106	LCSD	RA-226	27.814	4.480	35.081	5.636	N/A	pCi/L	ARS-010/EPA 903	6/16/17 11:29	SC	1.01	< 3
ARS1-B17-01106	LCSD	RA-228	32.901	5.513	34.717	5.792	N/A	pCi/L	ARS-010/EPA 904	6/9/17 14:31	SC	0.23	< 3

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

ARS INTERNATIONAL
2609 North River Road • Port Allen, Louisiana 70767
1 (800) 401-4277 • Fax (225) 381-2996

Notes (Case Narrative):

Comments:

1.0) All MDA/MDC values are calculated on a sample specific basis.
2.0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.
3.0) Data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.
4.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix. Modified analyses are indicated by the subsequent addition of "m" to the procedure number (i.e. 900.0M).
5.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than the actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
6.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228 (Gamma Spectroscopy only).
7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234 (Gamma Spectroscopy only).
8.0) All gamma spectroscopy was performed utilizing high purity germanium detectors (**HPGe**).
9.0) ARS makes every attempt to match sample density to calibrated density; however, in some cases, it is not practical or possible to do so and data results may be affected (Gamma Spectroscopy only).
10.0) Gamma spectroscopy results are calculated values based on the **ORTEC®** GammaVision ENV32 Analysis Engine.
11.0) ACLASS DOD and ISO 17025 certification applies only to the following analytes and methods: Gross Alpha and Gross Beta (EPA 900, SM7110B&C, SW846 9310); Radium 226 (EPA 903, EPA 903.1, SM 7500 Ra-B, SW846 9315); Radium 228 (EPA 904, SM 7500 Ra-B SW846 9320); Iodine-131(EPA 901.1); Uranium by ICPMS (EPA 200.8); Strontium 89/90 (EPA 905, Eichrom SRW01, HASL 300 Sr-03-RC); Tritium (EPA 906, EPA 906M); Gamma Emitters (EPA 901.1, SM7120B, HASL 300 Ga-01-R); Americium-241, Curium 242/244, Plutonium 239/240 and 241, Thorium 228/230/232, Uranium 234/233 and 238 (Eichrom ACW03 VBS); Lead 210 (HASL 300 Pb-01-RC, Eichrom OTW01); Polonium 210 (HASL 300 Po-01-RC, HASL 300 Po-02-RC); Technetium-99 (Eichrom TCW02, Eichrom TCS01M).

Method References:

1.0) **EPA 600/4-80-032**; Prescribed Procedures for the Measurements of Radioactivity in Drinking Water, August 1980.
2.0) **Standard Methods for the Examination of Water and Wastewater** (On-Line Edition)
3.0) **EPA SW-846**; Test Methods for Evaluating Solid Waste, (On-Line edition)
4.0) **EPA 600/4/79-020**; Methods for Chemical Analysis of Water and Waste, March 1983.
5.0) **HASL 300**; The Procedures Manual of the Environmental Measurements Laboratory, Volume I, 28th Edition February, 1997.

Definitions:

CRDL	Contract Required Detection Limit
CSU	Combined Standard Uncertainty
DLC	Decision Level Concentration (ANSI N42.23) or critical level
DO	Duplicate Original
DUP	Method Duplicate
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
MDA	Minimum Detectable Activity
MDC	(Minimum Detectable Concentration) minimum concentration of the analyte that ARS can detect utilizing the specific analysis
MBL	Method Blank
MS/MSD	Matrix Spike/Matrix Spike Duplicate
N/A	Not Applicable
NP	Not Provided
NR	Not Referenced
LOD	Limit of Detection
LOQ	Limit of Quantitation

Data Qualifiers:

B	The analyte is found in both the associated method blank and the sample. This flag indicates probable blank contamination.
D	Sample analysis accomplished through dilution.
J	The reported result is an estimated value above the limit of detection but outside of quantitation range (e.g., matrix interference was observed).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).
U	Activity is below the MDC, MDA, MDL, or LOD
N	The analyte is a tentatively identified compound using mass spectrometry or any non-customer requested compounds that are tentatively identified.
*	LCS/LCSD or MS/MSD fails RPD criteria.
S	Spike
SC	Subcontracted out to another qualified laboratory
H	Holding time exceeded

LELAP Cert# 01949 ***NELAP Cert# E87558***

ARS-059-010
Revision: 9.1
Revision Date: 03-14-2017

B - Environmental

Chain of Custody Record

Batch # 55338

TEMP UN-C: 5.1 | Page ___ of ___

THERM ID# 3 | TEMP Corr: 4.9

Customer / Report Information | **Billing Information** [X] Check box if Billing is the same as Report Information

Name: Coleto Creek Power	Address:	Phone: 361-788-5145 FAX:
Attention: Rick Coleman	Attention: PO#:	EMAIL: Richard.Coleman@dynegy.com
Address:	Project: Comments: CCR SAMPLING	Requested Analysis / Completed By Laboratory

Sample Information

Collected By: BL Smith

Requested Analysis: Metals*, SO4, [illegible], TDS, Ra 226/228, ~~Alk~~, Br, ~~[illegible]~~

Client / Field Sample ID	Collected Date	Collected Time	G=Grab C=Composite	Matrix (DW - Drinking H2O, S - Solid, WW - Waste H2O, SL - Sludge, L - Liquid, W - Water)	Container Type	Number	Size	Preservative	Requested Analysis	Custody Seals Present: Yes ☐ No ☐; Intact: Yes ☐ No ☐; LAB Sample Number
BV-21	5-15-17	1028	G	W	P	1	1L	☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ ___ ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X X X X X X X	S171361004
								☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ ___ ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3		
								☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ ___ ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3		
								☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ ___ ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3		
								☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ ___ ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3		
								☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ ___ ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3		
								☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ ___ ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3		

Required Turnaround: ☒ Routine (6-10 Business Days) Expedite / Rush: ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business Days ☒ 5 Business Days ☐ Other ______ REMARKS:

Surcharge will apply to RUSH TAT Authorized By: | Container Type: P=Plastic, G=Glass, V=VOA, O=Other | Carrier ID :

Relinquished By:	Date:	Time:	Received By:	Date:	Time:
[signature]	5-15-17	1615	[signature]	5/15/17	1615

~~Fluoride: 0.25mg/L;~~ Metals:* B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, ~~Mg, K, Na,~~ Hg

BatchNo: 55518

SAMPLE REPORT

T104704328-17-14

Business

Coleto Creek Power - R Coleman
PO Box 8
Fannin TX 77960
Att: Rick Coleman

Laboratory

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901
ph. 361-572-8224

Reference Information

Project: CCR Sample

Printed: Friday, June 23, 2017

Re: Coleto Creek Power - R Coleman

Dear: Rick Coleman

Attached are the results for sample(s) received on 5/18/2017

The analytical results relate only to the samples tested.
All supporting quality data meets the requirements of NELAC unless noted in the case narrative section of the report.

This report contains 22 pages (including the cover page)

If you have any questions concerning this report, please do not hesitate to call (361) 572-8224 or Fax us at (361) 572-4115

Respectfully Submitted,

Kevin Baros

Laboratory Director

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55518

Batch No: 55518

Sample Receipt Checklist

Date Received: 5/18/2017

Project: CCR Sample

Received By: Woodruff

Login completed by: Woodruff (Signature) 5/18/2017 (LoginDate:)

Carrier Name: Walk In

Shipping container/cooler in good condition?	☑ YES	☐ NO	☐ Not Present
Custody seals intact on shipping container/cooler?	☐ YES	☐ NO	☑ Not Present
Custody seals intact on sample bottles?	☐ YES	☐ NO	☑ Not Present
Chain of Custody present?	☑ YES	☐ NO	
Chain of Custody signed when relinquished and received	☑ YES	☐ NO	
Chain of Custody agrees with sample labels?	☑ YES	☐ NO	
Samples in proper container/bottles?	☑ YES	☐ NO	
Sample containers intact?	☑ YES	☐ NO	
Sufficient sample volume for indicated tests?	☑ YES	☐ NO	
All samples received within holding times?	☑ YES	☐ NO	
Container/Temp Blank - temperature in compliance?	☑ YES	☐ NO	>0 <6 °C On Ice
Water - VOA vials have zero headspace? Bubble < 6mm?	☐ YES	☐ NO	☑ No VOA Vials submitted
Water - pH acceptable upon receipt?	☑ YES	☐ NO	☐ Not Applicable

*TEMP 14.3/14.1 pH Adjusted? No Checked By L. Vahrenkamp

Any No and/or N/A (not applicable) response must be detailed in the comments section below.

Client contacted: PersonContacted:

Contacted by: Date Contacted:

Regarding:

Comments:

Therm. #3. HNO3 Lot# 2-42-12. pH Paper Lot# 2-25-6. The sample was received the same day it was collected and was in the process of cooling.

Corrective Action:

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55518

Sample Report Information

Sample ID:	S171381625	Client ID:	MW-11 Catch Up Sample	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sample
Location: MW #11
Notes:

Batch No: 55518
Sampled: 5/18/2017 1:48 PM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	47.8	mg/L	EPA 300	K Baros	5/22/2017 14:08	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	148	mg/L	SM 2320 B		5/24/2017 12:40	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/24/2017 12:40	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	148	mg/L	SM 2320 B		5/24/2017 12:40	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.94	mg/L	EPA 300	K Baros	5/22/2017 14:08	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.29	SU	SM 4500-H+B	C Watts	5/18/2017 16:50					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	390	mg/L	SM2540C	C Watts	5/24/2017 17:45	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			5/22/2017 15:56					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	52.4	mg/L	EPA 300	K Baros	5/22/2017 14:08	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			6/16/2017 9:29					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55518

QA Summary Report

Parameter	ID	Result	Ref Value	Amt Added	LOQ	Qualifer	Control	Flag	Comments
.Method Blank									
.- Chloride, IC 5/22/2017 12:52	Q171451223	<1mg/L	0		1		1		Blank Acceptable.
Fluoride, IC 5/22/2017 12:52	Q171451223	<0.25mg/L	0		0.25		0.25		Blank Acceptable.
Nitrate-N, IC 5/22/2017 12:52	Q171451223	<0.06mg/L	0		0.06		0.06		Blank Acceptable.
Nitrite-N, IC 5/22/2017 12:52	Q171451223	<0.08mg/L	0		0.08		0.08		Blank Acceptable.
Solids, Total Dissolved 5/24/2017 17:45	Q171511045	<25mg/L	0		10		25		Blank Acceptable.
Sulfate, IC 5/22/2017 12:52	Q171451223	<1mg/L	0		1		1		Blank Acceptable.
Duplicate									
pH (Standard Units) 5/18/2017 16:50	Q17139095A	7.32SU	7.29		2	0.4%	20		Duplicate RPD Acceptable.
Solids, Total Dissolved 5/24/2017 17:45	Q171511047	408mg/L	410		10	0.5%	20		Duplicate RPD Acceptable.
Laboratory Control Standard									
.- Chloride, IC 5/22/2017 13:30	Q171451224	25.4mg/L	25		1	101.6% 1.6%	80 - 120 20		Standard Recovery Acceptable. Standard RPD Acceptable.
Fluoride, IC 5/22/2017 13:30	Q171451224	2.04mg/L	2		0.25	102.0% 2.0%	80 - 120 20		Standard Recovery Acceptable. Standard RPD Acceptable.
Nitrate-N, IC 5/22/2017 13:30	Q171451224	0.45mg/L	0.45		0.06	100.0% 0.0%	80 - 120 25		Standard Recovery Acceptable. Standard RPD Acceptable.
Nitrite-N, IC 5/22/2017 13:30	Q171451224	0.62mg/L	0.61		0.08	101.6% 1.6%	80 - 120 25		Standard Recovery Acceptable. Standard RPD Acceptable.
pH (Standard Units) 5/18/2017 16:50	Q171390952	7.01SU	7		2	100.1% 0.1%	80 - 120 20		Standard Recovery Acceptable. Standard RPD Acceptable.
Sulfate, IC 5/22/2017 13:30	Q171451224	25.8mg/L	25		1	103.2% 3.1%	80 - 120 20		Standard Recovery Acceptable. Standard RPD Acceptable.
Matrix Spike									
.- Chloride, IC 5/22/2017 15:24	Q171451225	404mg/L	409	125	1	96.0% 1.2%	80 - 120 20		Spike Recovery Acceptable. Spike RPD Acceptable.
Fluoride, IC 5/22/2017 15:24	Q171451225	9.59mg/L	10.34	10	0.25	92.5% 7.5%	80 - 120 20		Spike Recovery Acceptable. Spike RPD Acceptable.
Nitrate-N, IC 5/22/2017 15:24	Q171451225	2.15mg/L	2.25	2.25	0.06	95.6% 4.5%	80 - 120 20		Spike Recovery Acceptable. Spike RPD Acceptable.
Nitrite-N, IC 5/22/2017 15:24	Q171451225	2.92mg/L	3.05	3.05	0.08	95.7% 4.4%	80 - 120 20		Spike Recovery Acceptable. Spike RPD Acceptable.
Sulfate, IC 5/22/2017 15:24	Q171451225	153mg/L	155	125	1	98.4% 1.3%	70 - 130 20		Spike Recovery Acceptable. Spike RPD Acceptable.

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55518

Parameter	ID	Result	Ref Value	Amt Added	LOQ	Qualifer	Control	Flag	Comments
Matrix Spike Dup									
.- Chloride, IC	Q17145122A	404mg/L	409	125	1	96.0%	80 - 120		Spike Recovery Acceptable.
5/22/2017 16:02						1.2%	20		Spike RPD Acceptable.
Fluoride, IC	Q17145122A	9.55mg/L	10.34	10	0.25	92.1%	80 - 120		Spike Recovery Acceptable.
5/22/2017 16:02						7.9%	20		Spike RPD Acceptable.
Nitrate-N, IC	Q17145122A	2.14mg/L	2.25	2.25	0.06	95.1%	80 - 120		Spike Recovery Acceptable.
5/22/2017 16:02						5.0%	20		Spike RPD Acceptable.
Nitrite-N, IC	Q17145122A	2.86mg/L	3.05	3.05	0.08	93.8%	80 - 120		Spike Recovery Acceptable.
5/22/2017 16:02						6.4%	20		Spike RPD Acceptable.
Sulfate, IC	Q17145122A	152mg/L	155	125	1	97.6%	70 - 130		Spike Recovery Acceptable.
5/22/2017 16:02						2.0%	20		Spike RPD Acceptable.

Flag and Qualifier Legend

Negative - Result Detected

Caution - Problem Detected

Warning - Null Value

MDL = Method Detection Limit ***DF = Dilution Factor***

LOQ = Limit of Quantitation ***j = Analyte detected between MDL and LOQ***

S = surrogate standard out of limit ***H = sample out of hold time***

MS, MSD, RPD- Failure may occur due to matrix interference, data released per QA plan

Friday, June 23, 2017 **B Environmental - LDMS QA Report Summary**

Note: THANK YOU!

DHL Analytical, Inc. **Date:** *25-May-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Lab Order: 1705216

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition and Standard Methods.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives except where noted in the following. For Total Metals Analysis, the recoveries of three analytes for the Matrix Spike and Matrix Spike Duplicate (1705217-03 MS/MSD) were outside of the method control limits. These are flagged accordingly in the QC Summary Report. These analytes were within method control limits in the associated LCS. No further corrective action was taken.

For Total Metals Analysis, the recovery of Antimony for the Post Digestion Spike (1705217-03 PDS) was below the method control limits. This is flagged accordingly in the QC Summary Report. This analyte was within method control limits in the associated Serial Dilution. No further corrective action was taken.

For Total/Dissolved Metals Analysis, the results of dissolved Lithium/Molybdenum for Sample MW 11 Catch Up Sample were slightly higher than the results of total Lithium/Molybdenum. The results were within acceptable analytical variation limits. No further corrective action was taken.

DHL Analytical, Inc.

Date: *25-May-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (55518)
Lab Order: 1705216

Client Sample ID: MW 11 Catch Up Sample
Lab ID: 1705216-01
Alternate ID: S171381625
Collection Date: 05/18/17 01:48 PM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.0126	0.00500	0.0100		mg/L	1	05/23/17 12:57 PM
Dissolved Molybdenum	0.00849	0.00200	0.00500		mg/L	1	05/23/17 12:57 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/22/17 03:56 PM
Arsenic	0.0188	0.00200	0.00500		mg/L	1	05/22/17 03:56 PM
Barium	0.0779	0.00300	0.0100		mg/L	1	05/22/17 03:56 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/22/17 03:56 PM
Boron	1.27	0.100	0.300		mg/L	10	05/23/17 11:38 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/22/17 03:56 PM
Calcium	61.6	1.00	3.00		mg/L	10	05/23/17 11:38 AM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	05/22/17 03:56 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	05/22/17 03:56 PM
Lead	0.00204	0.000300	0.00100		mg/L	1	05/22/17 03:56 PM
Lithium	0.0122	0.00500	0.0100		mg/L	1	05/22/17 03:56 PM
Magnesium	4.33	0.100	0.300		mg/L	1	05/22/17 03:56 PM
Molybdenum	0.00781	0.00200	0.00500		mg/L	1	05/22/17 03:56 PM
Potassium	1.54	0.100	0.300		mg/L	1	05/22/17 03:56 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/22/17 03:56 PM
Sodium	65.3	1.00	3.00		mg/L	10	05/23/17 11:38 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/22/17 03:56 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **RO**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/22/17 02:13 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	148	10.0	20.0		mg/L @ pH 4.5	1	05/24/17 12:40 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.5	1	05/24/17 12:40 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.5	1	05/24/17 12:40 PM
Alkalinity, Total (As CaCO3)	148	20.0	20.0		mg/L @ pH 4.5	1	05/24/17 12:40 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *25-May-17*

CLIENT: B-Environmental
Work Order: 1705216
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_170522C

The QC data in batch 80558 applies to the following samples: 1705216-01A

Sample ID	MB-80558	Batch ID:	80558	TestNo:	SW7470A	Units:	mg/L
SampType:	MBLK	Run ID:	CETAC2_HG_170522	Analysis Date:	5/22/2017 1:28:18 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.0000800	0.000200								

Sample ID	LCS-80558	Batch ID:	80558	TestNo:	SW7470A	Units:	mg/L
SampType:	LCS	Run ID:	CETAC2_HG_170522	Analysis Date:	5/22/2017 1:30:34 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00205	0.000200	0.00200	0	103	85	115			

Sample ID	LCSD-80558	Batch ID:	80558	TestNo:	SW7470A	Units:	mg/L
SampType:	LCSD	Run ID:	CETAC2_HG_170522	Analysis Date:	5/22/2017 1:32:50 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00205	0.000200	0.00200	0	103	85	115	0	15	

Sample ID	1705217-03A SD	Batch ID:	80558	TestNo:	SW7470A	Units:	mg/L
SampType:	SD	Run ID:	CETAC2_HG_170522	Analysis Date:	5/22/2017 1:37:23 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.000400	0.00100	0	0				0	10	

Sample ID	1705217-03A PDS	Batch ID:	80558	TestNo:	SW7470A	Units:	mg/L
SampType:	PDS	Run ID:	CETAC2_HG_170522	Analysis Date:	5/22/2017 1:39:38 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00239	0.000200	0.00250	0	95.6	85	115			

Sample ID	1705217-03A MS	Batch ID:	80558	TestNo:	SW7470A	Units:	mg/L
SampType:	MS	Run ID:	CETAC2_HG_170522	Analysis Date:	5/22/2017 1:41:54 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00207	0.000200	0.00200	0	104	80	120			

Sample ID	1705217-03A MSD	Batch ID:	80558	TestNo:	SW7470A	Units:	mg/L
SampType:	MSD	Run ID:	CETAC2_HG_170522	Analysis Date:	5/22/2017 1:44:09 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00209	0.000200	0.00200	0	104	80	120	0.962	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705216
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170522A

The QC data in batch 80552 applies to the following samples: 1705216-01A

Sample ID **MB-80552** Batch ID: **80552** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS4_170522A** Analysis Date: **5/22/2017 3:30:00 PM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.000800	0.00250								
Arsenic	<0.00200	0.00500								
Barium	<0.00300	0.0100								
Beryllium	<0.000300	0.00100								
Cadmium	<0.000300	0.00100								
Calcium	<0.100	0.300								
Chromium	<0.00200	0.00500								
Cobalt	<0.00300	0.00500								
Lead	<0.000300	0.00100								
Lithium	<0.00500	0.0100								
Magnesium	<0.100	0.300								
Molybdenum	<0.00200	0.00500								
Potassium	<0.100	0.300								
Selenium	<0.00200	0.00500								
Sodium	<0.100	0.300								
Thallium	<0.000500	0.00150								

Sample ID **LCS-80552** Batch ID: **80552** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS4_170522A** Analysis Date: **5/22/2017 3:32:00 PM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.192	0.00250	0.200	0	95.9	80	120			
Arsenic	0.198	0.00500	0.200	0	99.2	80	120			
Barium	0.190	0.0100	0.200	0	95.0	80	120			
Beryllium	0.198	0.00100	0.200	0	99.1	80	120			
Cadmium	0.196	0.00100	0.200	0	97.8	80	120			
Calcium	4.97	0.300	5.00	0	99.3	80	120			
Chromium	0.200	0.00500	0.200	0	100	80	120			
Cobalt	0.201	0.00500	0.200	0	100	80	120			
Lead	0.195	0.00100	0.200	0	97.4	80	120			
Lithium	0.198	0.0100	0.200	0	99.1	80	120			
Magnesium	5.02	0.300	5.00	0	100	80	120			
Molybdenum	0.192	0.00500	0.200	0	95.9	80	120			
Potassium	5.04	0.300	5.00	0	101	80	120			
Selenium	0.198	0.00500	0.200	0	99.0	80	120			
Sodium	4.99	0.300	5.00	0	99.8	80	120			
Thallium	0.197	0.00150	0.200	0	98.3	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705216
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170522A

Sample ID LCSD-80552	Batch ID: 80552	TestNo: SW6020A	Units: mg/L
SampType: LCSD	Run ID: ICP-MS4_170522A	Analysis Date: 5/22/2017 3:34:00 PM	Prep Date: 5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.193	0.00250	0.200	0	96.6	80	120	0.707	15	
Arsenic	0.199	0.00500	0.200	0	99.4	80	120	0.265	15	
Barium	0.190	0.0100	0.200	0	95.0	80	120	0.006	15	
Beryllium	0.199	0.00100	0.200	0	99.5	80	120	0.475	15	
Cadmium	0.196	0.00100	0.200	0	98.2	80	120	0.424	15	
Calcium	4.99	0.300	5.00	0	99.8	80	120	0.452	15	
Chromium	0.203	0.00500	0.200	0	101	80	120	1.41	15	
Cobalt	0.202	0.00500	0.200	0	101	80	120	0.468	15	
Lead	0.196	0.00100	0.200	0	98.2	80	120	0.750	15	
Lithium	0.197	0.0100	0.200	0	98.4	80	120	0.696	15	
Magnesium	5.08	0.300	5.00	0	102	80	120	1.07	15	
Molybdenum	0.194	0.00500	0.200	0	96.8	80	120	0.894	15	
Potassium	5.11	0.300	5.00	0	102	80	120	1.41	15	
Selenium	0.198	0.00500	0.200	0	99.0	80	120	0.065	15	
Sodium	5.01	0.300	5.00	0	100	80	120	0.505	15	
Thallium	0.198	0.00150	0.200	0	98.9	80	120	0.574	15	

Sample ID 1705217-03A SD	Batch ID: 80552	TestNo: SW6020A	Units: mg/L
SampType: SD	Run ID: ICP-MS4_170522A	Analysis Date: 5/22/2017 3:40:00 PM	Prep Date: 5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.00400	0.0125	0	0				0	10	
Arsenic	<0.0100	0.0250	0	0.00958				0	10	
Barium	0.0990	0.0500	0	0.101				1.73	10	
Beryllium	<0.00150	0.00500	0	0				0	10	
Cadmium	<0.00150	0.00500	0	0				0	10	
Chromium	<0.0100	0.0250	0	0.00345				0	10	
Cobalt	<0.0150	0.0250	0	0.00305				0	10	
Lead	0.00384	0.00500	0	0.00377				1.89	10	
Lithium	<0.0250	0.0500	0	0.00590				0	10	
Magnesium	7.15	1.50	0	7.00				2.15	10	
Molybdenum	0.0910	0.0250	0	0.0900				1.12	10	
Potassium	1.11	1.50	0	1.08				2.39	10	
Selenium	<0.0100	0.0250	0	0				0	10	
Thallium	<0.00250	0.00750	0	0				0	10	

Sample ID 1705217-03A PDS	Batch ID: 80552	TestNo: SW6020A	Units: mg/L
SampType: PDS	Run ID: ICP-MS4_170522A	Analysis Date: 5/22/2017 4:00:00 PM	Prep Date: 5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.122	0.00250	0.200	0	60.8	80	120			S

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705216
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170522A

Sample ID **1705217-03A PDS** Batch ID: **80552** TestNo: **SW6020A** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS4_170522A** Analysis Date: **5/22/2017 4:00:00 PM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.208	0.00500	0.200	0.00958	99.3	80	120			
Barium	0.285	0.0100	0.200	0.101	91.9	80	120			
Beryllium	0.189	0.00100	0.200	0	94.5	80	120			
Cadmium	0.191	0.00100	0.200	0	95.5	80	120			
Chromium	0.202	0.00500	0.200	0.00345	99.4	80	120			
Cobalt	0.196	0.00500	0.200	0.00305	96.6	80	120			
Lead	0.196	0.00100	0.200	0.00377	96.3	80	120			
Lithium	0.183	0.0100	0.200	0.00590	88.5	80	120			
Magnesium	11.1	0.300	5.00	7.00	82.1	80	120			
Molybdenum	0.274	0.00500	0.200	0.0899	91.8	80	120			
Potassium	5.81	0.300	5.00	1.08	94.5	80	120			
Selenium	0.189	0.00500	0.200	0	94.3	80	120			
Thallium	0.195	0.00150	0.200	0	97.3	80	120			

Sample ID **1705217-03A MS** Batch ID: **80552** TestNo: **SW6020A** Units: **mg/L**
SampType: **MS** Run ID: **ICP-MS4_170522A** Analysis Date: **5/22/2017 4:02:00 PM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.190	0.00250	0.200	0	95.2	80	120			
Arsenic	0.211	0.00500	0.200	0.00958	101	80	120			
Barium	0.280	0.0100	0.200	0.101	89.8	80	120			
Beryllium	0.191	0.00100	0.200	0	95.3	80	120			
Cadmium	0.191	0.00100	0.200	0	95.7	80	120			
Chromium	0.199	0.00500	0.200	0.00345	97.6	80	120			
Cobalt	0.199	0.00500	0.200	0.00305	97.9	80	120			
Lead	0.198	0.00100	0.200	0.00377	97.0	80	120			
Lithium	0.192	0.0100	0.200	0.00590	93.1	80	120			
Magnesium	11.4	0.300	5.00	7.00	88.9	80	120			
Molybdenum	0.280	0.00500	0.200	0.0899	95.1	80	120			
Potassium	5.91	0.300	5.00	1.08	96.5	80	120			
Selenium	0.194	0.00500	0.200	0	96.8	80	120			
Thallium	0.198	0.00150	0.200	0	98.8	80	120			

Sample ID **1705217-03A MSD** Batch ID: **80552** TestNo: **SW6020A** Units: **mg/L**
SampType: **MSD** Run ID: **ICP-MS4_170522A** Analysis Date: **5/22/2017 4:04:00 PM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.187	0.00250	0.200	0	93.5	80	120	1.83	15	
Arsenic	0.205	0.00500	0.200	0.00958	97.9	80	120	2.64	15	
Barium	0.273	0.0100	0.200	0.101	86.3	80	120	2.50	15	
Beryllium	0.185	0.00100	0.200	0	92.5	80	120	2.97	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705216
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170522A

Sample ID **1705217-03A MSD** Batch ID: **80552** TestNo: **SW6020A** Units: **mg/L**
SampType: **MSD** Run ID: **ICP-MS4_170522A** Analysis Date: **5/22/2017 4:04:00 PM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.185	0.00100	0.200	0	92.5	80	120	3.37	15	
Chromium	0.194	0.00500	0.200	0.00345	95.2	80	120	2.41	15	
Cobalt	0.193	0.00500	0.200	0.00305	94.9	80	120	3.07	15	
Lead	0.192	0.00100	0.200	0.00377	93.9	80	120	3.14	15	
Lithium	0.185	0.0100	0.200	0.00590	89.5	80	120	3.89	15	
Magnesium	11.3	0.300	5.00	7.00	85.6	80	120	1.43	15	
Molybdenum	0.272	0.00500	0.200	0.0899	91.2	80	120	2.79	15	
Potassium	5.84	0.300	5.00	1.08	95.2	80	120	1.11	15	
Selenium	0.191	0.00500	0.200	0	95.3	80	120	1.54	15	
Thallium	0.195	0.00150	0.200	0	97.5	80	120	1.38	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705216
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170523A

The QC data in batch 80552 applies to the following samples: 1705216-01A

Sample ID	MB-80552	Batch ID:	80552	TestNo:	SW6020A	Units:	mg/L
SampType:	MBLK	Run ID:	ICP-MS4_170523A	Analysis Date:	5/23/2017 11:12:00 AM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	<0.0100	0.0300								

Sample ID	LCS-80552	Batch ID:	80552	TestNo:	SW6020A	Units:	mg/L
SampType:	LCS	Run ID:	ICP-MS4_170523A	Analysis Date:	5/23/2017 11:14:00 AM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.204	0.0300	0.200	0	102	80	120			

Sample ID	LCSD-80552	Batch ID:	80552	TestNo:	SW6020A	Units:	mg/L
SampType:	LCSD	Run ID:	ICP-MS4_170523A	Analysis Date:	5/23/2017 11:16:00 AM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.205	0.0300	0.200	0	103	80	120	0.702	15	

Sample ID	1705217-03A SD	Batch ID:	80552	TestNo:	SW6020A	Units:	mg/L
SampType:	SD	Run ID:	ICP-MS4_170523A	Analysis Date:	5/23/2017 11:22:00 AM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	3.40	1.50	0	3.18				6.88	10	
Calcium	52.2	15.0	0	53.3				1.96	10	
Sodium	59.1	15.0	0	60.5				2.30	10	

Sample ID	1705217-03A PDS	Batch ID:	80552	TestNo:	SW6020A	Units:	mg/L
SampType:	PDS	Run ID:	ICP-MS4_170523A	Analysis Date:	5/23/2017 11:40:00 AM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	5.30	0.300	2.00	3.18	106	80	120			
Calcium	104	3.00	50.0	53.3	102	80	120			
Sodium	115	3.00	50.0	60.5	109	80	120			

Sample ID	1705217-03A MS	Batch ID:	80552	TestNo:	SW6020A	Units:	mg/L
SampType:	MS	Run ID:	ICP-MS4_170523A	Analysis Date:	5/23/2017 11:42:00 AM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	3.22	0.300	0.200	3.18	22.9	80	120			S
Calcium	55.9	3.00	5.00	53.3	53.0	80	120			S
Sodium	68.4	3.00	5.00	60.5	158	80	120			S

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705216
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170523A

Sample ID **1705217-03A MSD** Batch ID: **80552** TestNo: **SW6020A** Units: **mg/L**
SampType: **MSD** Run ID: **ICP-MS4_170523A** Analysis Date: **5/23/2017 11:44:00 AM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	3.27	0.300	0.200	3.18	48.0	80	120	1.55	15	S
Calcium	55.8	3.00	5.00	53.3	49.9	80	120	0.276	15	S
Sodium	67.2	3.00	5.00	60.5	136	80	120	1.67	15	S

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705216
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170523A

The QC data in batch 80556 applies to the following samples: 1705216-01B

Sample ID	MB-80556	Batch ID:	80556	TestNo:	SW6020A	Units:	mg/L
SampType:	MBLK	Run ID:	ICP-MS4_170523A	Analysis Date:	5/23/2017 12:31:00 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.00500	0.0100								
Molybdenum	<0.00200	0.00500								

Sample ID	LCS-80556	Batch ID:	80556	TestNo:	SW6020A	Units:	mg/L
SampType:	LCS	Run ID:	ICP-MS4_170523A	Analysis Date:	5/23/2017 12:33:00 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.203	0.0100	0.200	0	101	80	120			
Molybdenum	0.198	0.00500	0.200	0	99.1	80	120			

Sample ID	LCSD-80556	Batch ID:	80556	TestNo:	SW6020A	Units:	mg/L
SampType:	LCSD	Run ID:	ICP-MS4_170523A	Analysis Date:	5/23/2017 12:35:00 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.208	0.0100	0.200	0	104	80	120	2.70	15	
Molybdenum	0.204	0.00500	0.200	0	102	80	120	3.07	15	

Sample ID	1705217-03B SD	Batch ID:	80556	TestNo:	SW6020A	Units:	mg/L
SampType:	SD	Run ID:	ICP-MS4_170523A	Analysis Date:	5/23/2017 12:41:00 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.0250	0.0500	0	0.00500				0	10	
Molybdenum	0.0960	0.0250	0	0.0915				4.78	10	

Sample ID	1705217-03B PDS	Batch ID:	80556	TestNo:	SW6020A	Units:	mg/L
SampType:	PDS	Run ID:	ICP-MS4_170523A	Analysis Date:	5/23/2017 1:01:00 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.192	0.0100	0.200	0.00500	93.5	80	120			
Molybdenum	0.279	0.00500	0.200	0.0915	93.7	80	120			

Sample ID	1705217-03B MS	Batch ID:	80556	TestNo:	SW6020A	Units:	mg/L
SampType:	MS	Run ID:	ICP-MS4_170523A	Analysis Date:	5/23/2017 1:03:00 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.199	0.0100	0.200	0.00500	96.8	80	120			
Molybdenum	0.299	0.00500	0.200	0.0915	104	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705216
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170523A

Sample ID	1705217-03B MSD	Batch ID:	80556	TestNo:	SW6020A	Units:	mg/L
SampType:	MSD	Run ID:	ICP-MS4_170523A	Analysis Date:	5/23/2017 1:05:00 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.193	0.0100	0.200	0.00500	94.2	80	120	2.62	15	
Molybdenum	0.290	0.00500	0.200	0.0915	99.3	80	120	3.10	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705216
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_170524B

The QC data in batch 80594 applies to the following samples: 1705216-01C

Sample ID **MB-80594** Batch ID: **80594** TestNo: **M2320 B** Units: **mg/L @ pH 4.24**
SampType: **MBLK** Run ID: **TITRATOR_170524B** Analysis Date: **5/24/2017 10:09:00 AM** Prep Date: **5/24/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0								
Alkalinity, Total (As CaCO3)	<20.0	20.0								

Sample ID **LCS-80594** Batch ID: **80594** TestNo: **M2320 B** Units: **mg/L @ pH 4**
SampType: **LCS** Run ID: **TITRATOR_170524B** Analysis Date: **5/24/2017 10:13:00 AM** Prep Date: **5/24/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	51.8	20.0	50.00	0	104	74	129			

Sample ID **1705217-03C-DUP** Batch ID: **80594** TestNo: **M2320 B** Units: **mg/L @ pH 4.51**
SampType: **DUP** Run ID: **TITRATOR_170524B** Analysis Date: **5/24/2017 1:17:00 PM** Prep Date: **5/24/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	133	20.0	0	133.5				0.375	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	133	20.0	0	133.5				0.375	20	

Sample ID **1705238-01C-DUP** Batch ID: **80594** TestNo: **M2320 B** Units: **mg/L @ pH 4.48**
SampType: **DUP** Run ID: **TITRATOR_170524B** Analysis Date: **5/24/2017 2:14:00 PM** Prep Date: **5/24/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	<10.0	20.0	0	10.00				0	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	<20.0	20.0	0	0				0	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

2609 North River Road, Port Allen, Louisiana 70767
(800) 401-4277 -- FAX (225) 381-2996

ARS International, LLC

Laboratory Analysis Report

ARS1-17-01443

Prepared for:

B-Environmental

Kevin Baros
1606 East Brazos Street
Suite D
Victoria, TX 77901

dbenviro@suddenlinkmail.com; cbenviro@suddenlinkmail.com
swbenviro@suddenlinkmail.com

Phone: 361-572-8224
Fax: 361-572-4115

Project Manager Review

Management Review

Notes: ARS International, LLC assumes no liability for the use or the interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

Contact Person: Questions regarding this analytical report should be addressed to:

Project Manager
ProjectManagers@amrad.com

Phone: 225.381.2991
Fax: 225.381.2996

LELAP Cert# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01443
Client Sample ID: S171381625 (BATCH 55518)
Sample Collection Date: 05/18/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01443-001
Date Received: 05/23/17
Report Date: 06/19/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	NDC	DLC	CDRL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.216	0.130	0.140	0.051	NP		pCi/L	ARS-010/EPA 903.0/904.0	06/16/17 9:29	SCAUSEY	99%
Ra-228	0.423	0.679	1.153	0.535	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/09/17 12:32	SCAUSEY	91%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

INTERNATIONAL

QC Results Report

Sample Delivery Group: ARS1-17-01443

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-01106	LCS	RA-226	27.814	4.480	0.098	27.723	N/A	pCi/L	ARS-010/EPA 903	6/16/17 11:29	SC	100	75%-125%
ARS1-B17-01106	LCS	RA-228	32.901	5.513	1.063	39.784	N/A	pCi/L	ARS-010/EPA 904	6/9/17 14:31	SC	83	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-01106	MBL	RA-226	0.082	0.065	0.089	NA	U	pCi/L	ARS-010/EPA 903	6/16/17 11:29	SC
ARS1-B17-01106	MBL	RA-228	-0.087	0.371	0.681	NA	U	pCi/L	ARS-010/EPA 904	6/9/17 14:31	SC

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-01106	LCSD	RA-226	27.814	4.480	35.081	5.636	N/A	pCi/L	ARS-010/EPA 903	6/16/17 11:29	SC	0.72	< 1
ARS1-B17-01106	LCSD	RA-228	32.901	5.513	34.717	5.792	N/A	pCi/L	ARS-010/EPA 904	6/9/17 14:31	SC	0.16	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-01106	LCSD	RA-226	27.814	4.480	35.081	5.636	N/A	pCi/L	ARS-010/EPA 903	6/16/17 11:29	SC	1.01	< 3
ARS1-B17-01106	LCSD	RA-228	32.901	5.513	34.717	5.792	N/A	pCi/L	ARS-010/EPA 904	6/9/17 14:31	SC	0.23	< 3

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

ARS INTERNATIONAL

2609 North River Road • Port Allen, Louisiana 70767

1 (800) 401-4277 • Fax (225) 381-2996

Notes (Case Narrative):

Comments:

1.0) All MDA/MDC values are calculated on a sample specific basis.
2.0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.
3.0) Data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.
4.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix. Modified analyses are indicated by the subsequent addition of "m" to the procedure number (i.e. 900.0M).
5.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than the actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
6.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228 (Gamma Spectroscopy only).
7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234 (Gamma Spectroscopy only).
8.0) All gamma spectroscopy was performed utilizing high purity germanium detectors (**HPGe**).
9.0) ARS makes every attempt to match sample density to calibrated density; however, in some cases, it is not practical or possible to do so and data results may be affected (Gamma Spectroscopy only).
10.0) Gamma spectroscopy results are calculated values based on the **ORTEC®** GammaVision ENV32 Analysis Engine.
11.0) ACLASS DOD and ISO 17025 certification applies only to the following analytes and methods: Gross Alpha and Gross Beta (EPA 900, SM7110B&C, SW846 9310); Radium 226 (EPA 903, EPA 903.1, SM 7500 Ra-B, SW846 9315); Radium 228 (EPA 904, SM 7500 Ra-B SW846 9320); Iodine-131(EPA 901.1); Uranium by ICPMS (EPA 200.8); Strontium 89/90 (EPA 905, Eichrom SRW01, HASL 300 Sr-03-RC); Tritium (EPA 906, EPA 906M); Gamma Emitters (EPA 901.1, SM7120B, HASL 300 Ga-01-R); Americium-241, Curium 242/244, Plutonium 239/240 and 241, Thorium 228/230/232, Uranium 234/233 and 238 (Eichrom ACW03 VBS); Lead 210 (HASL 300 Pb-01-RC, Eichrom OTW01); Polonium 210 (HASL 300 Po-01-RC, HASL 300 Po-02-RC); Technetium-99 (Eichrom TCW02, Eichrom TCS01M).

Method References:

1.0) **EPA 600/4-80-032**; Prescribed Procedures for the Measurements of Radioactivity in Drinking Water, August 1980.
2.0) **Standard Methods for the Examination of Water and Wastewater** (On-Line Edition)
3.0) **EPA SW-846**; Test Methods for Evaluating Solid Waste, (On-Line edition)
4.0) **EPA 600/4/79-020**; Methods for Chemical Analysis of Water and Waste, March 1983.
5.0) **HASL 300**; The Procedures Manual of the Environmental Measurements Laboratory, Volume I, 28th Edition February, 1997.

Definitions:

CRDL	Contract Required Detection Limit
CSU	Combined Standard Uncertainty
DLC	Decision Level Concentration (ANSI N42.23) or critical level
DO	Duplicate Original
DUP	Method Duplicate
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
MDA	Minimum Detectable Activity
MDC	(Minimum Detectable Concentration) minimum concentration of the analyte that ARS can detect utilizing the specific analysis
MBL	Method Blank
MS/MSD	Matrix Spike/Matrix Spike Duplicate
N/A	Not Applicable
NP	Not Provided
NR	Not Referenced
LOD	Limit of Detection
LOQ	Limit of Quantitation

Data Qualifiers:

B	The analyte is found in both the associated method blank and the sample. This flag indicates probable blank contamination.
D	Sample analysis accomplished through dilution.
J	The reported result is an estimated value above the limit of detection but outside of quantitation range (e.g., matrix interference was observed).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).
U	Activity is below the MDC, MDA, MDL, or LOD
N	The analyte is a tentatively identified compound using mass spectrometry or any non-customer requested compounds that are tentatively identified.
*	LCS/LCSD or MS/MSD fails RPD criteria.
S	Spike
SC	Subcontracted out to another qualified laboratory
H	Holding time exceeded

B - Environmental

Chain of Custody Recor

Batch # 55518 | TEMP UN-C: 14.3 | Page ___ of ___

THERM ID# 3 | TEMP Corr: 14.1

Customer / Report Information

Name: Coleto Creek Power
Attention: Bick Coleman
Address:

Billing Information ☒ Check box if Billing is the same as Report Information

Address:
Attention: PO#:
Project:
Comments: CCR Sample

Phone: 361-788-5145 FAX:
EMAIL: Richard.Coleman@dynegy.com

Requested Analysis: B C A E D F | Completed By Laboratory

Sample Information

Collected By:

Client / Field Sample ID	Collected Date	Collected Time	G=Grab C=Composite	Matrix (DW - Drinking H20, S - Solid, WW - Waste H20, SL - Sludge, L - Liquid, W - Water)	Container Type	Container Number	Container Size	Preservative	Metals*	Cl, F, SO4	pH	TDS	Ra226/Ra228	Alk - Tot, Carb, Bicarb	Diss. Li+Mo		LAB Sample Number
MW-11 Catch Up Sample	5/18/17	1348	G	W	P	6	1L 500 250	☐ H2SO4 ☐ H3PO4 ☑ ICE ☐ ____ ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X		S171381625
								☐ H2SO4 ☐ H3PO4 ☐ ICE ☐ ____ ☐ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3									
								☐ H2SO4 ☐ H3PO4 ☐ ICE ☐ ____ ☐ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3									
								☐ H2SO4 ☐ H3PO4 ☐ ICE ☐ ____ ☐ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3									
								☐ H2SO4 ☐ H3PO4 ☐ ICE ☐ ____ ☐ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3									
								☐ H2SO4 ☐ H3PO4 ☐ ICE ☐ ____ ☐ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3									
								☐ H2SO4 ☐ H3PO4 ☐ ICE ☐ ____ ☐ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3									

Custody Seals Present: Yes ☐ No ☐
Intact: Yes ☐ No ☐

Required Turnaround: ☐ Routine (6-10 Business Days) Expedite / Rush: ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business Days ☐ 5 Business Days ☐ Other ______ REMARKS:

Surcharge will apply to RUSH TAT Authorized By:

Container Type: P=Plastic, G=Glass, V=VOA, O=Other | Carrier ID :

Relinquished By: [signature]	Date: 5-18-17	Time: 1620	Received By: [signature]	Date: 5-18-17	Time: 16:20
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

1606 E Brazos Suite D, Victoria, Texas 77901 Ph. (361) 572-8224 Fax (361) 572-4115 Toll Free 1-800-460-8223 Form #1000.0-2 REV 1.2 Email: kbenviro@suddenlinkmail.com www.benvironmental.net

Fluoride: 0.25mg/L ; Metals*: B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, Mg, K, Na + Hg

BatchNo: 55518

SAMPLE REPORT

T104704328-17-14

Business

Coleto Creek Power - R Coleman
PO Box 8
Fannin TX 77960
Att: Rick Coleman

Laboratory

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901
ph. 361-572-8224

Reference Information

Project: CCR Sample

Printed: Friday, June 23, 2017

Re: Coleto Creek Power - R Coleman

Dear: Rick Coleman

Attached are the results for sample(s) received on 5/18/2017

The analytical results relate only to the samples tested.
All supporting quality data meets the requirements of NELAC unless noted in the case narrative section of the report.

This report contains 22 pages (including the cover page)

If you have any questions concerning this report, please do not hesitate to call (361) 572-8224 or Fax us at (361) 572-4115

Respectfully Submitted,

Kevin Baros

Laboratory Director

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55518

Batch No: 55518

Sample Receipt Checklist

Date Received: 5/18/2017

Project: CCR Sample

Received By: Woodruff

Login completed by: Woodruff (Signature) 5/18/2017 (LoginDate:)

Carrier Name: Walk In

Shipping container/cooler in good condition?	☑ YES	☐ NO	☐ Not Present
Custody seals intact on shipping container/cooler?	☐ YES	☐ NO	☑ Not Present
Custody seals intact on sample bottles?	☐ YES	☐ NO	☑ Not Present
Chain of Custody present?	☑ YES	☐ NO	
Chain of Custody signed when relinquished and received	☑ YES	☐ NO	
Chain of Custody agrees with sample labels?	☑ YES	☐ NO	
Samples in proper container/bottles?	☑ YES	☐ NO	
Sample containers intact?	☑ YES	☐ NO	
Sufficient sample volume for indicated tests?	☑ YES	☐ NO	
All samples received within holding times?	☑ YES	☐ NO	
Container/Temp Blank - temperature in compliance?	☑ YES	☐ NO	>0 <6 °C On Ice
Water - VOA vials have zero headspace? Bubble < 6mm?	☐ YES	☐ NO	☑ No VOA Vials submitted
Water - pH acceptable upon receipt?	☑ YES	☐ NO	☐ Not Applicable

*TEMP 14.3/14.1 pH Adjusted? No Checked By L. Vahrenkamp

Any No and/or N/A (not applicable) response must be detailed in the comments section below.

Client contacted: PersonContacted:

Contacted by: Date Contacted:

Regarding:

Comments:

Therm. #3. HNO3 Lot# 2-42-12. pH Paper Lot# 2-25-6. The sample was received the same day it was collected and was in the process of cooling.

Corrective Action:

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55518

Sample Report Information

Sample ID:	S171381625	Client ID:	MW-11 Catch Up Sample	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sample
Location: MW #11
Notes:

Batch No: 55518
Sampled: 5/18/2017 1:48 PM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	47.8	mg/L	EPA 300	K Baros	5/22/2017 14:08	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	148	mg/L	SM 2320 B		5/24/2017 12:40	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		5/24/2017 12:40	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	148	mg/L	SM 2320 B		5/24/2017 12:40	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.94	mg/L	EPA 300	K Baros	5/22/2017 14:08	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.29	SU	SM 4500-H+B	C Watts	5/18/2017 16:50					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	390	mg/L	SM2540C	C Watts	5/24/2017 17:45	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			5/22/2017 15:56					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	52.4	mg/L	EPA 300	K Baros	5/22/2017 14:08	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			6/16/2017 9:29					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55518

QA Summary Report

Parameter	ID	Result	Ref Value	Amt Added	LOQ	Qualifer	Control	Flag	Comments
.Method Blank									
.- Chloride, IC 5/22/2017 12:52	Q171451223	<1mg/L	0		1		1		Blank Acceptable.
Fluoride, IC 5/22/2017 12:52	Q171451223	<0.25mg/L	0		0.25		0.25		Blank Acceptable.
Nitrate-N, IC 5/22/2017 12:52	Q171451223	<0.06mg/L	0		0.06		0.06		Blank Acceptable.
Nitrite-N, IC 5/22/2017 12:52	Q171451223	<0.08mg/L	0		0.08		0.08		Blank Acceptable.
Solids, Total Dissolved 5/24/2017 17:45	Q171511045	<25mg/L	0		10		25		Blank Acceptable.
Sulfate, IC 5/22/2017 12:52	Q171451223	<1mg/L	0		1		1		Blank Acceptable.
Duplicate									
pH (Standard Units) 5/18/2017 16:50	Q17139095A	7.32SU	7.29		2	0.4%	20		Duplicate RPD Acceptable.
Solids, Total Dissolved 5/24/2017 17:45	Q171511047	408mg/L	410		10	0.5%	20		Duplicate RPD Acceptable.
Laboratory Control Standard									
.- Chloride, IC 5/22/2017 13:30	Q171451224	25.4mg/L	25		1	101.6% 1.6%	80 - 120 20		Standard Recovery Acceptable. Standard RPD Acceptable.
Fluoride, IC 5/22/2017 13:30	Q171451224	2.04mg/L	2		0.25	102.0% 2.0%	80 - 120 20		Standard Recovery Acceptable. Standard RPD Acceptable.
Nitrate-N, IC 5/22/2017 13:30	Q171451224	0.45mg/L	0.45		0.06	100.0% 0.0%	80 - 120 25		Standard Recovery Acceptable. Standard RPD Acceptable.
Nitrite-N, IC 5/22/2017 13:30	Q171451224	0.62mg/L	0.61		0.08	101.6% 1.6%	80 - 120 25		Standard Recovery Acceptable. Standard RPD Acceptable.
pH (Standard Units) 5/18/2017 16:50	Q171390952	7.01SU	7		2	100.1% 0.1%	80 - 120 20		Standard Recovery Acceptable. Standard RPD Acceptable.
Sulfate, IC 5/22/2017 13:30	Q171451224	25.8mg/L	25		1	103.2% 3.1%	80 - 120 20		Standard Recovery Acceptable. Standard RPD Acceptable.
Matrix Spike									
.- Chloride, IC 5/22/2017 15:24	Q171451225	404mg/L	409	125	1	96.0% 1.2%	80 - 120 20		Spike Recovery Acceptable. Spike RPD Acceptable.
Fluoride, IC 5/22/2017 15:24	Q171451225	9.59mg/L	10.34	10	0.25	92.5% 7.5%	80 - 120 20		Spike Recovery Acceptable. Spike RPD Acceptable.
Nitrate-N, IC 5/22/2017 15:24	Q171451225	2.15mg/L	2.25	2.25	0.06	95.6% 4.5%	80 - 120 20		Spike Recovery Acceptable. Spike RPD Acceptable.
Nitrite-N, IC 5/22/2017 15:24	Q171451225	2.92mg/L	3.05	3.05	0.08	95.7% 4.4%	80 - 120 20		Spike Recovery Acceptable. Spike RPD Acceptable.
Sulfate, IC 5/22/2017 15:24	Q171451225	153mg/L	155	125	1	98.4% 1.3%	70 - 130 20		Spike Recovery Acceptable. Spike RPD Acceptable.

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 55518

Parameter	ID	Result	Ref Value	Amt Added	LOQ	Qualifer	Control	Flag	Comments
Matrix Spike Dup									
.- Chloride, IC	Q17145122A	404mg/L	409	125	1	96.0%	80 - 120		Spike Recovery Acceptable.
5/22/2017 16:02						1.2%	20		Spike RPD Acceptable.
Fluoride, IC	Q17145122A	9.55mg/L	10.34	10	0.25	92.1%	80 - 120		Spike Recovery Acceptable.
5/22/2017 16:02						7.9%	20		Spike RPD Acceptable.
Nitrate-N, IC	Q17145122A	2.14mg/L	2.25	2.25	0.06	95.1%	80 - 120		Spike Recovery Acceptable.
5/22/2017 16:02						5.0%	20		Spike RPD Acceptable.
Nitrite-N, IC	Q17145122A	2.86mg/L	3.05	3.05	0.08	93.8%	80 - 120		Spike Recovery Acceptable.
5/22/2017 16:02						6.4%	20		Spike RPD Acceptable.
Sulfate, IC	Q17145122A	152mg/L	155	125	1	97.6%	70 - 130		Spike Recovery Acceptable.
5/22/2017 16:02						2.0%	20		Spike RPD Acceptable.

Flag and Qualifier Legend

Negative - Result Detected

Caution - Problem Detected

Warning - Null Value

MDL = Method Detection Limit ***DF = Dilution Factor***

LOQ = Limit of Quantitation ***j = Analyte detected between MDL and LOQ***

S = surrogate standard out of limit ***H = sample out of hold time***

MS, MSD, RPD- Failure may occur due to matrix interference, data released per QA plan

Friday, June 23, 2017 **B Environmental - LDMS QA Report Summary**

Note: THANK YOU!

DHL Analytical, Inc. **Date:** *25-May-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Lab Order: 1705216

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition and Standard Methods.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives except where noted in the following. For Total Metals Analysis, the recoveries of three analytes for the Matrix Spike and Matrix Spike Duplicate (1705217-03 MS/MSD) were outside of the method control limits. These are flagged accordingly in the QC Summary Report. These analytes were within method control limits in the associated LCS. No further corrective action was taken.

For Total Metals Analysis, the recovery of Antimony for the Post Digestion Spike (1705217-03 PDS) was below the method control limits. This is flagged accordingly in the QC Summary Report. This analyte was within method control limits in the associated Serial Dilution. No further corrective action was taken.

For Total/Dissolved Metals Analysis, the results of dissolved Lithium/Molybdenum for Sample MW 11 Catch Up Sample were slightly higher than the results of total Lithium/Molybdenum. The results were within acceptable analytical variation limits. No further corrective action was taken.

DHL Analytical, Inc.

Date: *25-May-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (55518)
Lab Order: 1705216

Client Sample ID: MW 11 Catch Up Sample
Lab ID: 1705216-01
Alternate ID: S171381625
Collection Date: 05/18/17 01:48 PM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.0126	0.00500	0.0100		mg/L	1	05/23/17 12:57 PM
Dissolved Molybdenum	0.00849	0.00200	0.00500		mg/L	1	05/23/17 12:57 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	05/22/17 03:56 PM
Arsenic	0.0188	0.00200	0.00500		mg/L	1	05/22/17 03:56 PM
Barium	0.0779	0.00300	0.0100		mg/L	1	05/22/17 03:56 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	05/22/17 03:56 PM
Boron	1.27	0.100	0.300		mg/L	10	05/23/17 11:38 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	05/22/17 03:56 PM
Calcium	61.6	1.00	3.00		mg/L	10	05/23/17 11:38 AM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	05/22/17 03:56 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	05/22/17 03:56 PM
Lead	0.00204	0.000300	0.00100		mg/L	1	05/22/17 03:56 PM
Lithium	0.0122	0.00500	0.0100		mg/L	1	05/22/17 03:56 PM
Magnesium	4.33	0.100	0.300		mg/L	1	05/22/17 03:56 PM
Molybdenum	0.00781	0.00200	0.00500		mg/L	1	05/22/17 03:56 PM
Potassium	1.54	0.100	0.300		mg/L	1	05/22/17 03:56 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	05/22/17 03:56 PM
Sodium	65.3	1.00	3.00		mg/L	10	05/23/17 11:38 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	05/22/17 03:56 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **RO**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	05/22/17 02:13 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	148	10.0	20.0		mg/L @ pH 4.5	1	05/24/17 12:40 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.5	1	05/24/17 12:40 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.5	1	05/24/17 12:40 PM
Alkalinity, Total (As CaCO3)	148	20.0	20.0		mg/L @ pH 4.5	1	05/24/17 12:40 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *25-May-17*

CLIENT: B-Environmental
Work Order: 1705216
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_170522C

The QC data in batch 80558 applies to the following samples: 1705216-01A

Sample ID	MB-80558	Batch ID:	80558	TestNo:	SW7470A	Units:	mg/L
SampType:	MBLK	Run ID:	CETAC2_HG_170522	Analysis Date:	5/22/2017 1:28:18 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.0000800	0.000200								

Sample ID	LCS-80558	Batch ID:	80558	TestNo:	SW7470A	Units:	mg/L
SampType:	LCS	Run ID:	CETAC2_HG_170522	Analysis Date:	5/22/2017 1:30:34 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00205	0.000200	0.00200	0	103	85	115			

Sample ID	LCSD-80558	Batch ID:	80558	TestNo:	SW7470A	Units:	mg/L
SampType:	LCSD	Run ID:	CETAC2_HG_170522	Analysis Date:	5/22/2017 1:32:50 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00205	0.000200	0.00200	0	103	85	115	0	15	

Sample ID	1705217-03A SD	Batch ID:	80558	TestNo:	SW7470A	Units:	mg/L
SampType:	SD	Run ID:	CETAC2_HG_170522	Analysis Date:	5/22/2017 1:37:23 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.000400	0.00100	0	0				0	10	

Sample ID	1705217-03A PDS	Batch ID:	80558	TestNo:	SW7470A	Units:	mg/L
SampType:	PDS	Run ID:	CETAC2_HG_170522	Analysis Date:	5/22/2017 1:39:38 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00239	0.000200	0.00250	0	95.6	85	115			

Sample ID	1705217-03A MS	Batch ID:	80558	TestNo:	SW7470A	Units:	mg/L
SampType:	MS	Run ID:	CETAC2_HG_170522	Analysis Date:	5/22/2017 1:41:54 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00207	0.000200	0.00200	0	104	80	120			

Sample ID	1705217-03A MSD	Batch ID:	80558	TestNo:	SW7470A	Units:	mg/L
SampType:	MSD	Run ID:	CETAC2_HG_170522	Analysis Date:	5/22/2017 1:44:09 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00209	0.000200	0.00200	0	104	80	120	0.962	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705216
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170522A

The QC data in batch 80552 applies to the following samples: 1705216-01A

Sample ID **MB-80552** Batch ID: **80552** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS4_170522A** Analysis Date: **5/22/2017 3:30:00 PM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.000800	0.00250								
Arsenic	<0.00200	0.00500								
Barium	<0.00300	0.0100								
Beryllium	<0.000300	0.00100								
Cadmium	<0.000300	0.00100								
Calcium	<0.100	0.300								
Chromium	<0.00200	0.00500								
Cobalt	<0.00300	0.00500								
Lead	<0.000300	0.00100								
Lithium	<0.00500	0.0100								
Magnesium	<0.100	0.300								
Molybdenum	<0.00200	0.00500								
Potassium	<0.100	0.300								
Selenium	<0.00200	0.00500								
Sodium	<0.100	0.300								
Thallium	<0.000500	0.00150								

Sample ID **LCS-80552** Batch ID: **80552** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS4_170522A** Analysis Date: **5/22/2017 3:32:00 PM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.192	0.00250	0.200	0	95.9	80	120			
Arsenic	0.198	0.00500	0.200	0	99.2	80	120			
Barium	0.190	0.0100	0.200	0	95.0	80	120			
Beryllium	0.198	0.00100	0.200	0	99.1	80	120			
Cadmium	0.196	0.00100	0.200	0	97.8	80	120			
Calcium	4.97	0.300	5.00	0	99.3	80	120			
Chromium	0.200	0.00500	0.200	0	100	80	120			
Cobalt	0.201	0.00500	0.200	0	100	80	120			
Lead	0.195	0.00100	0.200	0	97.4	80	120			
Lithium	0.198	0.0100	0.200	0	99.1	80	120			
Magnesium	5.02	0.300	5.00	0	100	80	120			
Molybdenum	0.192	0.00500	0.200	0	95.9	80	120			
Potassium	5.04	0.300	5.00	0	101	80	120			
Selenium	0.198	0.00500	0.200	0	99.0	80	120			
Sodium	4.99	0.300	5.00	0	99.8	80	120			
Thallium	0.197	0.00150	0.200	0	98.3	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705216
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170522A

Sample ID LCSD-80552	Batch ID: 80552	TestNo: SW6020A	Units: mg/L
SampType: LCSD	Run ID: ICP-MS4_170522A	Analysis Date: 5/22/2017 3:34:00 PM	Prep Date: 5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.193	0.00250	0.200	0	96.6	80	120	0.707	15	
Arsenic	0.199	0.00500	0.200	0	99.4	80	120	0.265	15	
Barium	0.190	0.0100	0.200	0	95.0	80	120	0.006	15	
Beryllium	0.199	0.00100	0.200	0	99.5	80	120	0.475	15	
Cadmium	0.196	0.00100	0.200	0	98.2	80	120	0.424	15	
Calcium	4.99	0.300	5.00	0	99.8	80	120	0.452	15	
Chromium	0.203	0.00500	0.200	0	101	80	120	1.41	15	
Cobalt	0.202	0.00500	0.200	0	101	80	120	0.468	15	
Lead	0.196	0.00100	0.200	0	98.2	80	120	0.750	15	
Lithium	0.197	0.0100	0.200	0	98.4	80	120	0.696	15	
Magnesium	5.08	0.300	5.00	0	102	80	120	1.07	15	
Molybdenum	0.194	0.00500	0.200	0	96.8	80	120	0.894	15	
Potassium	5.11	0.300	5.00	0	102	80	120	1.41	15	
Selenium	0.198	0.00500	0.200	0	99.0	80	120	0.065	15	
Sodium	5.01	0.300	5.00	0	100	80	120	0.505	15	
Thallium	0.198	0.00150	0.200	0	98.9	80	120	0.574	15	

Sample ID 1705217-03A SD	Batch ID: 80552	TestNo: SW6020A	Units: mg/L
SampType: SD	Run ID: ICP-MS4_170522A	Analysis Date: 5/22/2017 3:40:00 PM	Prep Date: 5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.00400	0.0125	0	0				0	10	
Arsenic	<0.0100	0.0250	0	0.00958				0	10	
Barium	0.0990	0.0500	0	0.101				1.73	10	
Beryllium	<0.00150	0.00500	0	0				0	10	
Cadmium	<0.00150	0.00500	0	0				0	10	
Chromium	<0.0100	0.0250	0	0.00345				0	10	
Cobalt	<0.0150	0.0250	0	0.00305				0	10	
Lead	0.00384	0.00500	0	0.00377				1.89	10	
Lithium	<0.0250	0.0500	0	0.00590				0	10	
Magnesium	7.15	1.50	0	7.00				2.15	10	
Molybdenum	0.0910	0.0250	0	0.0900				1.12	10	
Potassium	1.11	1.50	0	1.08				2.39	10	
Selenium	<0.0100	0.0250	0	0				0	10	
Thallium	<0.00250	0.00750	0	0				0	10	

Sample ID 1705217-03A PDS	Batch ID: 80552	TestNo: SW6020A	Units: mg/L
SampType: PDS	Run ID: ICP-MS4_170522A	Analysis Date: 5/22/2017 4:00:00 PM	Prep Date: 5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.122	0.00250	0.200	0	60.8	80	120			S

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705216
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170522A

Sample ID **1705217-03A PDS** Batch ID: **80552** TestNo: **SW6020A** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS4_170522A** Analysis Date: **5/22/2017 4:00:00 PM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.208	0.00500	0.200	0.00958	99.3	80	120			
Barium	0.285	0.0100	0.200	0.101	91.9	80	120			
Beryllium	0.189	0.00100	0.200	0	94.5	80	120			
Cadmium	0.191	0.00100	0.200	0	95.5	80	120			
Chromium	0.202	0.00500	0.200	0.00345	99.4	80	120			
Cobalt	0.196	0.00500	0.200	0.00305	96.6	80	120			
Lead	0.196	0.00100	0.200	0.00377	96.3	80	120			
Lithium	0.183	0.0100	0.200	0.00590	88.5	80	120			
Magnesium	11.1	0.300	5.00	7.00	82.1	80	120			
Molybdenum	0.274	0.00500	0.200	0.0899	91.8	80	120			
Potassium	5.81	0.300	5.00	1.08	94.5	80	120			
Selenium	0.189	0.00500	0.200	0	94.3	80	120			
Thallium	0.195	0.00150	0.200	0	97.3	80	120			

Sample ID **1705217-03A MS** Batch ID: **80552** TestNo: **SW6020A** Units: **mg/L**
SampType: **MS** Run ID: **ICP-MS4_170522A** Analysis Date: **5/22/2017 4:02:00 PM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.190	0.00250	0.200	0	95.2	80	120			
Arsenic	0.211	0.00500	0.200	0.00958	101	80	120			
Barium	0.280	0.0100	0.200	0.101	89.8	80	120			
Beryllium	0.191	0.00100	0.200	0	95.3	80	120			
Cadmium	0.191	0.00100	0.200	0	95.7	80	120			
Chromium	0.199	0.00500	0.200	0.00345	97.6	80	120			
Cobalt	0.199	0.00500	0.200	0.00305	97.9	80	120			
Lead	0.198	0.00100	0.200	0.00377	97.0	80	120			
Lithium	0.192	0.0100	0.200	0.00590	93.1	80	120			
Magnesium	11.4	0.300	5.00	7.00	88.9	80	120			
Molybdenum	0.280	0.00500	0.200	0.0899	95.1	80	120			
Potassium	5.91	0.300	5.00	1.08	96.5	80	120			
Selenium	0.194	0.00500	0.200	0	96.8	80	120			
Thallium	0.198	0.00150	0.200	0	98.8	80	120			

Sample ID **1705217-03A MSD** Batch ID: **80552** TestNo: **SW6020A** Units: **mg/L**
SampType: **MSD** Run ID: **ICP-MS4_170522A** Analysis Date: **5/22/2017 4:04:00 PM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.187	0.00250	0.200	0	93.5	80	120	1.83	15	
Arsenic	0.205	0.00500	0.200	0.00958	97.9	80	120	2.64	15	
Barium	0.273	0.0100	0.200	0.101	86.3	80	120	2.50	15	
Beryllium	0.185	0.00100	0.200	0	92.5	80	120	2.97	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705216
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170522A

Sample ID **1705217-03A MSD** Batch ID: **80552** TestNo: **SW6020A** Units: **mg/L**
SampType: **MSD** Run ID: **ICP-MS4_170522A** Analysis Date: **5/22/2017 4:04:00 PM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.185	0.00100	0.200	0	92.5	80	120	3.37	15	
Chromium	0.194	0.00500	0.200	0.00345	95.2	80	120	2.41	15	
Cobalt	0.193	0.00500	0.200	0.00305	94.9	80	120	3.07	15	
Lead	0.192	0.00100	0.200	0.00377	93.9	80	120	3.14	15	
Lithium	0.185	0.0100	0.200	0.00590	89.5	80	120	3.89	15	
Magnesium	11.3	0.300	5.00	7.00	85.6	80	120	1.43	15	
Molybdenum	0.272	0.00500	0.200	0.0899	91.2	80	120	2.79	15	
Potassium	5.84	0.300	5.00	1.08	95.2	80	120	1.11	15	
Selenium	0.191	0.00500	0.200	0	95.3	80	120	1.54	15	
Thallium	0.195	0.00150	0.200	0	97.5	80	120	1.38	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705216
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170523A

The QC data in batch 80552 applies to the following samples: 1705216-01A

Sample ID	MB-80552	Batch ID:	80552	TestNo:	SW6020A	Units:	mg/L
SampType:	MBLK	Run ID:	ICP-MS4_170523A	Analysis Date:	5/23/2017 11:12:00 AM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	<0.0100	0.0300								

Sample ID	LCS-80552	Batch ID:	80552	TestNo:	SW6020A	Units:	mg/L
SampType:	LCS	Run ID:	ICP-MS4_170523A	Analysis Date:	5/23/2017 11:14:00 AM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.204	0.0300	0.200	0	102	80	120			

Sample ID	LCSD-80552	Batch ID:	80552	TestNo:	SW6020A	Units:	mg/L
SampType:	LCSD	Run ID:	ICP-MS4_170523A	Analysis Date:	5/23/2017 11:16:00 AM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.205	0.0300	0.200	0	103	80	120	0.702	15	

Sample ID	1705217-03A SD	Batch ID:	80552	TestNo:	SW6020A	Units:	mg/L
SampType:	SD	Run ID:	ICP-MS4_170523A	Analysis Date:	5/23/2017 11:22:00 AM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	3.40	1.50	0	3.18				6.88	10	
Calcium	52.2	15.0	0	53.3				1.96	10	
Sodium	59.1	15.0	0	60.5				2.30	10	

Sample ID	1705217-03A PDS	Batch ID:	80552	TestNo:	SW6020A	Units:	mg/L
SampType:	PDS	Run ID:	ICP-MS4_170523A	Analysis Date:	5/23/2017 11:40:00 AM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	5.30	0.300	2.00	3.18	106	80	120			
Calcium	104	3.00	50.0	53.3	102	80	120			
Sodium	115	3.00	50.0	60.5	109	80	120			

Sample ID	1705217-03A MS	Batch ID:	80552	TestNo:	SW6020A	Units:	mg/L
SampType:	MS	Run ID:	ICP-MS4_170523A	Analysis Date:	5/23/2017 11:42:00 AM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	3.22	0.300	0.200	3.18	22.9	80	120			S
Calcium	55.9	3.00	5.00	53.3	53.0	80	120			S
Sodium	68.4	3.00	5.00	60.5	158	80	120			S

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705216
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170523A

Sample ID **1705217-03A MSD** Batch ID: **80552** TestNo: **SW6020A** Units: **mg/L**
SampType: **MSD** Run ID: **ICP-MS4_170523A** Analysis Date: **5/23/2017 11:44:00 AM** Prep Date: **5/22/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	3.27	0.300	0.200	3.18	48.0	80	120	1.55	15	S
Calcium	55.8	3.00	5.00	53.3	49.9	80	120	0.276	15	S
Sodium	67.2	3.00	5.00	60.5	136	80	120	1.67	15	S

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705216
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170523A

The QC data in batch 80556 applies to the following samples: 1705216-01B

Sample ID	MB-80556	Batch ID:	80556	TestNo:	SW6020A	Units:	mg/L
SampType:	MBLK	Run ID:	ICP-MS4_170523A	Analysis Date:	5/23/2017 12:31:00 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.00500	0.0100								
Molybdenum	<0.00200	0.00500								

Sample ID	LCS-80556	Batch ID:	80556	TestNo:	SW6020A	Units:	mg/L
SampType:	LCS	Run ID:	ICP-MS4_170523A	Analysis Date:	5/23/2017 12:33:00 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.203	0.0100	0.200	0	101	80	120			
Molybdenum	0.198	0.00500	0.200	0	99.1	80	120			

Sample ID	LCSD-80556	Batch ID:	80556	TestNo:	SW6020A	Units:	mg/L
SampType:	LCSD	Run ID:	ICP-MS4_170523A	Analysis Date:	5/23/2017 12:35:00 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.208	0.0100	0.200	0	104	80	120	2.70	15	
Molybdenum	0.204	0.00500	0.200	0	102	80	120	3.07	15	

Sample ID	1705217-03B SD	Batch ID:	80556	TestNo:	SW6020A	Units:	mg/L
SampType:	SD	Run ID:	ICP-MS4_170523A	Analysis Date:	5/23/2017 12:41:00 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.0250	0.0500	0	0.00500				0	10	
Molybdenum	0.0960	0.0250	0	0.0915				4.78	10	

Sample ID	1705217-03B PDS	Batch ID:	80556	TestNo:	SW6020A	Units:	mg/L
SampType:	PDS	Run ID:	ICP-MS4_170523A	Analysis Date:	5/23/2017 1:01:00 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.192	0.0100	0.200	0.00500	93.5	80	120			
Molybdenum	0.279	0.00500	0.200	0.0915	93.7	80	120			

Sample ID	1705217-03B MS	Batch ID:	80556	TestNo:	SW6020A	Units:	mg/L
SampType:	MS	Run ID:	ICP-MS4_170523A	Analysis Date:	5/23/2017 1:03:00 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.199	0.0100	0.200	0.00500	96.8	80	120			
Molybdenum	0.299	0.00500	0.200	0.0915	104	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705216
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170523A

Sample ID	1705217-03B MSD	Batch ID:	80556	TestNo:	SW6020A	Units:	mg/L
SampType:	MSD	Run ID:	ICP-MS4_170523A	Analysis Date:	5/23/2017 1:05:00 PM	Prep Date:	5/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.193	0.0100	0.200	0.00500	94.2	80	120	2.62	15	
Molybdenum	0.290	0.00500	0.200	0.0915	99.3	80	120	3.10	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1705216
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_170524B

The QC data in batch 80594 applies to the following samples: 1705216-01C

Sample ID **MB-80594** Batch ID: **80594** TestNo: **M2320 B** Units: **mg/L @ pH 4.24**
SampType: **MBLK** Run ID: **TITRATOR_170524B** Analysis Date: **5/24/2017 10:09:00 AM** Prep Date: **5/24/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0								
Alkalinity, Total (As CaCO3)	<20.0	20.0								

Sample ID **LCS-80594** Batch ID: **80594** TestNo: **M2320 B** Units: **mg/L @ pH 4**
SampType: **LCS** Run ID: **TITRATOR_170524B** Analysis Date: **5/24/2017 10:13:00 AM** Prep Date: **5/24/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	51.8	20.0	50.00	0	104	74	129			

Sample ID **1705217-03C-DUP** Batch ID: **80594** TestNo: **M2320 B** Units: **mg/L @ pH 4.51**
SampType: **DUP** Run ID: **TITRATOR_170524B** Analysis Date: **5/24/2017 1:17:00 PM** Prep Date: **5/24/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	133	20.0	0	133.5				0.375	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	133	20.0	0	133.5				0.375	20	

Sample ID **1705238-01C-DUP** Batch ID: **80594** TestNo: **M2320 B** Units: **mg/L @ pH 4.48**
SampType: **DUP** Run ID: **TITRATOR_170524B** Analysis Date: **5/24/2017 2:14:00 PM** Prep Date: **5/24/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	<10.0	20.0	0	10.00				0	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	<20.0	20.0	0	0				0	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

2609 North River Road, Port Allen, Louisiana 70767
(800) 401-4277 -- FAX (225) 381-2996

ARS International, LLC

Laboratory Analysis Report

ARS1-17-01443

Prepared for:

B-Environmental

Kevin Baros
1606 East Brazos Street
Suite D
Victoria, TX 77901

dbenviro@suddenlinkmail.com; cbenviro@suddenlinkmail.com
swbenviro@suddenlinkmail.com

Phone: 361-572-8224
Fax: 361-572-4115

Project Manager Review

Management Review

Notes: ARS International, LLC assumes no liability for the use or the interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

Contact Person: Questions regarding this analytical report should be addressed to:

Project Manager
ProjectManagers@amrad.com

Phone: 225.381.2991
Fax: 225.381.2996

LELAP Cert# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01443
Client Sample ID: S171381625 (BATCH 55518)
Sample Collection Date: 05/18/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01443-001
Date Received: 05/23/17
Report Date: 06/19/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	NDC	DLC	CDRL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.216	0.130	0.140	0.051	NP		pCi/L	ARS-010/EPA 903.0/904.0	06/16/17 9:29	SCAUSEY	99%
Ra-228	0.423	0.679	1.153	0.535	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/09/17 12:32	SCAUSEY	91%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

INTERNATIONAL

QC Results Report

Sample Delivery Group: ARS1-17-01443

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-01106	LCS	RA-226	27.814	4.480	0.098	27.723	N/A	pCi/L	ARS-010/EPA 903	6/16/17 11:29	SC	100	75%-125%
ARS1-B17-01106	LCS	RA-228	32.901	5.513	1.063	39.784	N/A	pCi/L	ARS-010/EPA 904	6/9/17 14:31	SC	83	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-01106	MBL	RA-226	0.082	0.065	0.089	NA	U	pCi/L	ARS-010/EPA 903	6/16/17 11:29	SC
ARS1-B17-01106	MBL	RA-228	-0.087	0.371	0.681	NA	U	pCi/L	ARS-010/EPA 904	6/9/17 14:31	SC

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-01106	LCSD	RA-226	27.814	4.480	35.081	5.636	N/A	pCi/L	ARS-010/EPA 903	6/16/17 11:29	SC	0.72	< 1
ARS1-B17-01106	LCSD	RA-228	32.901	5.513	34.717	5.792	N/A	pCi/L	ARS-010/EPA 904	6/9/17 14:31	SC	0.16	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-01106	LCSD	RA-226	27.814	4.480	35.081	5.636	N/A	pCi/L	ARS-010/EPA 903	6/16/17 11:29	SC	1.01	< 3
ARS1-B17-01106	LCSD	RA-228	32.901	5.513	34.717	5.792	N/A	pCi/L	ARS-010/EPA 904	6/9/17 14:31	SC	0.23	< 3

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

ARS INTERNATIONAL

2609 North River Road • Port Allen, Louisiana 70767

1 (800) 401-4277 • Fax (225) 381-2996

Notes (Case Narrative):

Comments:

1.0) All MDA/MDC values are calculated on a sample specific basis.
2.0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.
3.0) Data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.
4.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix. Modified analyses are indicated by the subsequent addition of "m" to the procedure number (i.e. 900.0M).
5.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than the actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
6.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228 (Gamma Spectroscopy only).
7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234 (Gamma Spectroscopy only).
8.0) All gamma spectroscopy was performed utilizing high purity germanium detectors (**HPGe**).
9.0) ARS makes every attempt to match sample density to calibrated density; however, in some cases, it is not practical or possible to do so and data results may be affected (Gamma Spectroscopy only).
10.0) Gamma spectroscopy results are calculated values based on the **ORTEC®** GammaVision ENV32 Analysis Engine.
11.0) ACLASS DOD and ISO 17025 certification applies only to the following analytes and methods: Gross Alpha and Gross Beta (EPA 900, SM7110B&C, SW846 9310); Radium 226 (EPA 903, EPA 903.1, SM 7500 Ra-B, SW846 9315); Radium 228 (EPA 904, SM 7500 Ra-B SW846 9320); Iodine-131(EPA 901.1); Uranium by ICPMS (EPA 200.8); Strontium 89/90 (EPA 905, Eichrom SRW01, HASL 300 Sr-03-RC); Tritium (EPA 906, EPA 906M); Gamma Emitters (EPA 901.1, SM7120B, HASL 300 Ga-01-R); Americium-241, Curium 242/244, Plutonium 239/240 and 241, Thorium 228/230/232, Uranium 234/233 and 238 (Eichrom ACW03 VBS); Lead 210 (HASL 300 Pb-01-RC, Eichrom OTW01); Polonium 210 (HASL 300 Po-01-RC, HASL 300 Po-02-RC); Technetium-99 (Eichrom TCW02, Eichrom TCS01M).

Method References:

1.0) **EPA 600/4-80-032**; Prescribed Procedures for the Measurements of Radioactivity in Drinking Water, August 1980.
2.0) **Standard Methods for the Examination of Water and Wastewater** (On-Line Edition)
3.0) **EPA SW-846**; Test Methods for Evaluating Solid Waste, (On-Line edition)
4.0) **EPA 600/4/79-020**; Methods for Chemical Analysis of Water and Waste, March 1983.
5.0) **HASL 300**; The Procedures Manual of the Environmental Measurements Laboratory, Volume I, 28th Edition February, 1997.

Definitions:

CRDL	Contract Required Detection Limit
CSU	Combined Standard Uncertainty
DLC	Decision Level Concentration (ANSI N42.23) or critical level
DO	Duplicate Original
DUP	Method Duplicate
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
MDA	Minimum Detectable Activity
MDC	(Minimum Detectable Concentration) minimum concentration of the analyte that ARS can detect utilizing the specific analysis
MBL	Method Blank
MS/MSD	Matrix Spike/Matrix Spike Duplicate
N/A	Not Applicable
NP	Not Provided
NR	Not Referenced
LOD	Limit of Detection
LOQ	Limit of Quantitation

Data Qualifiers:

B	The analyte is found in both the associated method blank and the sample. This flag indicates probable blank contamination.
D	Sample analysis accomplished through dilution.
J	The reported result is an estimated value above the limit of detection but outside of quantitation range (e.g., matrix interference was observed).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).
U	Activity is below the MDC, MDA, MDL, or LOD
N	The analyte is a tentatively identified compound using mass spectrometry or any non-customer requested compounds that are tentatively identified.
*	LCS/LCSD or MS/MSD fails RPD criteria.
S	Spike
SC	Subcontracted out to another qualified laboratory
H	Holding time exceeded

B - Environmental

Chain of Custody Recor

Batch # 55518 | TEMP UN-C: 14.3 | Page ___ of ___
THERM ID# 3 | TEMP Corr: 14.1

Customer / Report Information

Name: Coleto Creek Power
Attention: Rick Coleman
Address:

Billing Information ☒ Check box if Billing is the same as Report Information

Address:
Attention: PO#:
Project:
Comments: CCR Sample

Phone: 361-788-5145 FAX:
EMAIL: Richard.Coleman@dynegy.com

Requested Analysis: B C A E D F — Completed By Laboratory

Sample Information

Collected By:

Client / Field Sample ID	Collected Date	Collected Time	G=Grab C=Composite	Matrix	Container Type	Number	Size	Preservative	Metals*	Cl, F, SO4	pH	TDS	Ra226/Ra228	Alk - Tot, Carb, Bicarb	Diss. Li + Mo		LAB Sample Number
MW-11 Catch Up Sample	5/18/17	1348	G	W	P	6	1L / 500 / 250	☐ H2SO4 ☐ H3PO4 ☑ ICE ☐ ___ ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X		S171381625
								☐ H2SO4 ☐ H3PO4 ☐ ICE ☐ ___ ☐ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3									
								☐ H2SO4 ☐ H3PO4 ☐ ICE ☐ ___ ☐ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3									
								☐ H2SO4 ☐ H3PO4 ☐ ICE ☐ ___ ☐ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3									
								☐ H2SO4 ☐ H3PO4 ☐ ICE ☐ ___ ☐ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3									
								☐ H2SO4 ☐ H3PO4 ☐ ICE ☐ ___ ☐ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3									
								☐ H2SO4 ☐ H3PO4 ☐ ICE ☐ ___ ☐ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3									

Matrix: DW - Drinking H20, S - Solid, WW - Waste H20, SL - Sludge, L - Liquid, W - Water

Custody Seals Present: Yes ☐ No ☐
Intact: Yes ☐ No ☐

Required Turnaround: ☐ Routine (6-10 Business Days) Expedite / Rush: ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business Days ☐ 5 Business Days ☐ Other ______ REMARKS:

Surcharge will apply to RUSH TAT Authorized By:

Container Type: P=Plastic, G=Glass, V=VOA, O=Other | Carrier ID :

Relinquished By:	Date:	Time:	Received By:	Date:	Time:
[signature]	5-18-17	1620	[signature]	5-18-17	16:20

1606 E Brazos Suite D, Victoria, Texas 77901 Ph. (361) 572-8224 Fax (361) 572-4115 Toll Free 1-800-460-8223 Form #1000.0-2 REV 1.2 Email: kbenviro@suddenlinkmail.com www.benvironmental.net

Fluoride: 0.25mg/L ; Metals*: B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, Mg, K, Na + Hg

Batch # 56264

BatchNo: 56264

SAMPLE REPORT

T104704328-17-14

Business

Coleto Creek Power - R Coleman
PO Box 8
Fannin TX 77960
Att: Rick Coleman

Laboratory

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901
ph. 361-572-8224

Reference Information

Project: CCR Sampling
Printed: Wednesday, July 12, 2017

Re: Coleto Creek Power - R Coleman

Dear: Rick Coleman

Attached are the results for sample(s) received on 6/7/2017

The analytical results relate only to the samples tested.
All supporting quality data meets the requirements of NELAC unless noted in the case narrative section of the report.

This report contains 44 pages (including the cover page)

If you have any questions concerning this report, please do not hesitate to call (361) 572-8224 or Fax us at (361) 572-4115

Respectfully Submitted,

Kevin Baros

Laboratory Director

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56264

Batch No: 56264

Sample Receipt Checklist

Date Received: 6/7/2017

Project	CCR Sampling	Received By:	Woodruff
Login completed by:	Woodruff	6/7/2017	
	Signature	LoginDate:	

Carrier Name: Walk In

Shipping container/cooler in good condition?	☑ YES	☐ NO	☐ Not Present	
Custody seals intact on shipping container/cooler?	☐ YES	☐ NO	☑ Not Present	
Custody seals intact on sample bottles?	☐ YES	☐ NO	☑ Not Present	
Chain of Custody present?	☑ YES	☐ NO		
Chain of Custody signed when relinquished and received	☑ YES	☐ NO		
Chain of Custody agrees with sample labels?	☑ YES	☐ NO		
Samples in proper container/bottles?	☑ YES	☐ NO		
Sample containers intact?	☑ YES	☐ NO		
Sufficient sample volume for indicated tests?	☑ YES	☐ NO		
All samples received within holding times?	☑ YES	☐ NO		
Container/Temp Blank - temperature in compliance?	☑ YES	☐ NO	>0 <6 °C On Ice	
Water - VOA vials have zero headspace? Bubble < 6mm?	☐ YES	☐ NO	☑ No VOA Vials submitted	
Water - pH acceptable upon receipt?	☑ YES	☐ NO	☐ Not Applicable	

*TEMP 4.9/4.7 | pH Adjusted? No | Checked By L. Vahrenkamp

Any No and/or N/A (not applicable) response must be detailed in the comments section below.

Client contacted		PersonContacted	
Contacted by:		Date Contacted:	

Regarding

Comments

Therm #3. HNO3 Lot # 2-42-12. pH Paper Lot # 2-25-6.

Corrective Action

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56264

Sample Report Information

Sample ID:	S171581725	Client ID:	Dup 2	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: Dup
Notes:

Batch No: 56264
Sampled: 6/7/2017 12:00 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	67	mg/L	EPA 300	K Baros	6/13/2017 0:53	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	138	mg/L	SM 2320 B		6/14/2017 13:00	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/14/2017 13:00	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	138	mg/L	SM 2320 B		6/14/2017 13:00	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	1.28	mg/L	EPA 300	K Baros	6/13/2017 0:53	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.38	SU	SM 4500-H+B	C Watts	6/7/2017 16:30					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	382	mg/L	SM2540C	C Watts	6/13/2017 15:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			6/13/2017 13:35					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	57	mg/L	EPA 300	K Baros	6/13/2017 0:53	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/7/2017 7:55					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56264

Sample Report Information

Sample ID:	S17158172A	Client ID:	MW-6	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #6
Notes:

Batch No: 56264
Sampled: 6/7/2017 10:43 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	70	mg/L	EPA 300	K Baros	6/12/2017 19:10	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	182	mg/L	SM 2320 B		6/14/2017 13:07	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/14/2017 13:07	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	182	mg/L	SM 2320 B		6/14/2017 13:07	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.37	mg/L	EPA 300	K Baros	6/12/2017 19:10	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.21	SU	SM 4500-H+B	C Watts	6/7/2017 16:30					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	492	mg/L	SM2540C	C Watts	6/13/2017 15:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			6/13/2017 13:37					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	103	mg/L	EPA 300	K Baros	6/12/2017 19:10	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/7/2017 7:55					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56264

Sample Report Information

Sample ID:	S17158172B	Client ID:	MW-7	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #7
Notes:

Batch No: 56264
Sampled: 6/7/2017 1:00 PM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	90	mg/L	EPA 300	K Baros	6/12/2017 19:49	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	253	mg/L	SM 2320 B		6/14/2017 13:16	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/14/2017 13:16	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	253	mg/L	SM 2320 B		6/14/2017 13:16	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.6	mg/L	EPA 300	K Baros	6/12/2017 19:49	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7	SU	SM 4500-H+B	C Watts	6/7/2017 16:30					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	574	mg/L	SM2540C	C Watts	6/13/2017 15:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			6/13/2017 13:32					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	74	mg/L	EPA 300	K Baros	6/12/2017 19:49	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/7/2017 7:55					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56264

Sample Report Information

Sample ID:	S17158172C	Client ID:	BV-5	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV-5
Notes:

Batch No: 56264
Sampled: 6/7/2017 7:53 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	109	mg/L	EPA 300	K Baros	6/12/2017 21:43	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	362	mg/L	SM 2320 B		6/14/2017 13:38	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/14/2017 13:38	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	362	mg/L	SM 2320 B		6/14/2017 13:38	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.56	mg/L	EPA 300	K Baros	6/12/2017 21:43	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.02	SU	SM 4500-H+B	C Watts	6/7/2017 16:30					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	810	mg/L	SM2540C	C Watts	6/13/2017 15:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			6/13/2017 13:39					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	147	mg/L	EPA 300	K Baros	6/12/2017 21:43	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/7/2017 7:55					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56264

Sample Report Information

Sample ID:	S17158172D	Client ID:	PS-3	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: PS-3
Notes:

Batch No: 56264
Sampled: 6/7/2017 8:46 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	44	mg/L	EPA 300	K Baros	6/12/2017 22:21	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	150	mg/L	SM 2320 B		6/14/2017 13:44	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/14/2017 13:44	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	150	mg/L	SM 2320 B		6/14/2017 13:44	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.96	mg/L	EPA 300	K Baros	6/12/2017 22:21	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.34	SU	SM 4500-H+B	C Watts	6/7/2017 16:30					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	336	mg/L	SM2540C	C Watts	6/13/2017 15:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			6/13/2017 13:40					☑	PCS Cert No. T104704361-08
Sulfate, IC	44	mg/L	EPA 300	K Baros	6/12/2017 22:21	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/7/2017 7:55					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56264

Sample Report Information

Sample ID:	S17158172E	Client ID:	MW-11	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #11
Notes:

Batch No: 56264
Sampled: 6/7/2017 9:15 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	48	mg/L	EPA 300	K Baros	6/12/2017 22:59	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	148	mg/L	SM 2320 B		6/14/2017 13:50	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/14/2017 13:50	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	148	mg/L	SM 2320 B		6/14/2017 13:50	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.93	mg/L	EPA 300	K Baros	6/12/2017 22:59	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.38	SU	SM 4500-H+B	C Watts	6/7/2017 16:30					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	372	mg/L	SM2540C	C Watts	6/13/2017 15:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			6/13/2017 13:42					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	50	mg/L	EPA 300	K Baros	6/12/2017 22:59	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/7/2017 7:55					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56264

Sample Report Information

Sample ID:	S17158172F	Client ID:	MW-9	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #9
Notes:

Batch No: 56264
Sampled: 6/7/2017 1:37 PM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	67	mg/L	EPA 300	K Baros	6/12/2017 23:37	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	140	mg/L	SM 2320 B		6/14/2017 13:56	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/14/2017 13:56	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	140	mg/L	SM 2320 B		6/14/2017 13:56	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	1.26	mg/L	EPA 300	K Baros	6/12/2017 23:37	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.45	SU	SM 4500-H+B	C Watts	6/7/2017 16:30					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	380	mg/L	SM2540C	C Watts	6/13/2017 15:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			6/13/2017 13:44					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	57	mg/L	EPA 300	K Baros	6/12/2017 23:37	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/7/2017 7:55					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56264

Sample Report Information

Sample ID:	S17158172G	Client ID:	MW-9A	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW 9A
Notes:

Batch No: 56264
Sampled: 6/7/2017 2:19 PM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	63	mg/L	EPA 300	K Baros	6/13/2017 0:15	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	140	mg/L	SM 2320 B		6/14/2017 14:08	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/14/2017 14:08	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	140	mg/L	SM 2320 B		6/14/2017 14:08	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	1.28	mg/L	EPA 300	K Baros	6/13/2017 0:15	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.44	SU	SM 4500-H+B	C Watts	6/7/2017 16:30					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	390	mg/L	SM2540C	C Watts	6/13/2017 15:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			6/13/2017 13:46					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	65	mg/L	EPA 300	K Baros	6/13/2017 0:15	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/7/2017 7:55					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56264

QA Summary Report

Parameter	ID	Result	Ref Value	Amt Added	LOQ	Qualifer	Control	Flag	Comments
.Method Blank									
.- Chloride, IC	Q171731033	<1mg/L	0		1		1		Blank Acceptable.
6/12/2017 20:27									
Fluoride, IC	Q171731033	<0.25mg/L	0		0.25		0.25		Blank Acceptable.
6/12/2017 20:27									
Solids, Total Dissolved	Q171650908	<25mg/L	0		10		25		Blank Acceptable.
6/13/2017 15:30									
Sulfate, IC	Q171731033	<1mg/L	0		1		1		Blank Acceptable.
6/12/2017 20:27									
Duplicate									
pH (Standard Units)	Q171600921	7.05SU	7		2	0.7%	20		Duplicate RPD Acceptable.
6/7/2017 16:30									
Solids, Total Dissolved	Q171650910	572mg/L	574		10	0.3%	20		Duplicate RPD Acceptable.
6/13/2017 15:30									
Laboratory Control Standard									
.- Chloride, IC	Q171731034	25.59mg/L	25		1	102.4%	80 - 120		Standard Recovery Acceptable.
6/12/2017 20:27						2.3%	20		Standard RPD Acceptable.
Fluoride, IC	Q171731034	2.02mg/L	2		0.25	101.0%	80 - 120		Standard Recovery Acceptable.
6/12/2017 20:27						1.0%	20		Standard RPD Acceptable.
pH (Standard Units)	Q171600920	7.03SU	7		2	100.4%	80 - 120		Standard Recovery Acceptable.
6/7/2017 16:30						0.4%	20		Standard RPD Acceptable.
Sulfate, IC	Q171731034	25.8mg/L	25		1	103.2%	80 - 120		Standard Recovery Acceptable.
6/12/2017 20:27						3.1%	20		Standard RPD Acceptable.
Matrix Spike									
.- Chloride, IC	Q17173103C	107mg/L	106	25	1	104.0%	80 - 120		Spike Recovery Acceptable.
6/12/2017 20:27						0.9%	20		Spike RPD Acceptable.
Fluoride, IC	Q17173103C	2.42mg/L	2.6	2	0.25	91.0%	80 - 120		Spike Recovery Acceptable.
6/12/2017 20:27						7.2%	20		Spike RPD Acceptable.
Sulfate, IC	Q17173103C	92mg/L	92	25	1	100.0%	70 - 130		Spike Recovery Acceptable.
6/12/2017 20:27						0.0%	20		Spike RPD Acceptable.
Matrix Spike Dup									
.- Chloride, IC	Q17173103D	107mg/L	106	25	1	104.0%	80 - 120		Spike Recovery Acceptable.
6/12/2017 21:05						0.9%	20		Spike RPD Acceptable.
Fluoride, IC	Q17173103D	2.43mg/L	2.6	2	0.25	91.5%	80 - 120		Spike Recovery Acceptable.
6/12/2017 21:05						6.8%	20		Spike RPD Acceptable.
Sulfate, IC	Q17173103D	92mg/L	92	25	1	100.0%	70 - 130		Spike Recovery Acceptable.
6/12/2017 21:05						0.0%	20		Spike RPD Acceptable.

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56264

Flag and Qualifier Legend

Negative - Result Detected
Caution - Problem Detected
Warning - Null Value

MDL = Method Detection Limit ***DF = Dilution Factor***
LOQ = Limit of Quantitation ***j = Analyte detected between MDL and LOQ***
S = surrogate standard out of limit ***H = sample out of hold time***

MS, MSD, RPD- Failure may occur due to matrix interference, data released per QA plan

Wednesday, July 12, 2017 **B Environmental - LDMS QA Report Summary**

Note: THANK YOU!

DHL Analytical, Inc. **Date:** *19-Jun-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Lab Order: 1706105

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition and Standard Methods.

For Metals analysis by method SW6020A the dissolved Lithium and/or Molybdenum results were slightly higher than the total Lithium and/or Molybdenum results for all samples. These are within the acceptable variation limits. No further corrective actions were taken.

All method blanks, sample duplicates, laboratory spikes, and/or matrix spikes met quality assurance objectives except where noted in the following. For Total Metals analysis by method SW6020A (batch 80851) the matrix spike and matrix spike duplicate recoveries were out of control limits for a total of three analytes. These are flagged accordingly in the enclosed QC summary report. The "S" flag denotes spike recovery was outside control limits. The LCS was within control limits for these analytes. No further corrective actions were taken.

For Total Metals analysis by method SW6020A (batch 80851) the RPD for the serial dilution was above control limits for Boron. This is flagged accordingly. The PDS was within control limits for this analyte. No further corrective actions were taken.

DHL Analytical, Inc.

Date: *19-Jun-17*

CLIENT:	B-Environmental	**Client Sample ID:**	Dup 2
Project:	Coleto Creek Power	**Lab ID:**	1706105-01
Project No:	CCR (56264)	**Alternate ID:**	S171581725
Lab Order:	1706105	**Collection Date:**	06/07/17
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	<0.00500	0.00500	0.0100		mg/L	1	06/12/17 02:29 PM
Dissolved Molybdenum	0.0919	0.00200	0.00500		mg/L	1	06/12/17 02:29 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **CVD**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	06/13/17 01:35 PM
Arsenic	0.00911	0.00200	0.00500		mg/L	1	06/13/17 01:35 PM
Barium	0.0965	0.00300	0.0100		mg/L	1	06/13/17 01:35 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 01:35 PM
Boron	2.99	0.100	0.300		mg/L	10	06/13/17 12:11 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 01:35 PM
Calcium	51.2	1.00	3.00		mg/L	10	06/13/17 12:11 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	06/13/17 01:35 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	06/13/17 01:35 PM
Lead	0.000482	0.000300	0.00100	J	mg/L	1	06/13/17 01:35 PM
Lithium	<0.00500	0.00500	0.0100		mg/L	1	06/13/17 01:35 PM
Magnesium	6.75	0.100	0.300		mg/L	1	06/13/17 01:35 PM
Molybdenum	0.0911	0.00200	0.00500		mg/L	1	06/13/17 01:35 PM
Potassium	0.887	0.100	0.300		mg/L	1	06/13/17 01:35 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	06/13/17 01:35 PM
Sodium	61.9	1.00	3.00		mg/L	10	06/13/17 12:11 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	06/13/17 01:35 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/12/17 03:04 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	138	10.0	20.0		mg/L @ pH 4.5	1	06/14/17 01:00 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.5	1	06/14/17 01:00 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.5	1	06/14/17 01:00 PM
Alkalinity, Total (As CaCO3)	138	20.0	20.0		mg/L @ pH 4.5	1	06/14/17 01:00 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *19-Jun-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (56264)
Lab Order: 1706105

Client Sample ID: MW-6
Lab ID: 1706105-02
Alternate ID: S17158172A
Collection Date: 06/07/17 10:43 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	0.00884	0.00500	0.0100	J	mg/L	1	06/12/17 02:31 PM
Dissolved Molybdenum	0.00980	0.00200	0.00500		mg/L	1	06/12/17 02:31 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **CVD**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	06/13/17 01:37 PM
Arsenic	0.00772	0.00200	0.00500		mg/L	1	06/13/17 01:37 PM
Barium	0.0798	0.00300	0.0100		mg/L	1	06/13/17 01:37 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 01:37 PM
Boron	1.80	0.100	0.300		mg/L	10	06/13/17 12:13 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 01:37 PM
Calcium	73.8	1.00	3.00		mg/L	10	06/13/17 12:13 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	06/13/17 01:37 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	06/13/17 01:37 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 01:37 PM
Lithium	0.00950	0.00500	0.0100	J	mg/L	1	06/13/17 01:37 PM
Magnesium	8.95	0.100	0.300		mg/L	1	06/13/17 01:37 PM
Molybdenum	0.00949	0.00200	0.00500		mg/L	1	06/13/17 01:37 PM
Potassium	0.829	0.100	0.300		mg/L	1	06/13/17 01:37 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	06/13/17 01:37 PM
Sodium	70.5	1.00	3.00		mg/L	10	06/13/17 12:13 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	06/13/17 01:37 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/12/17 03:06 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	182	10.0	20.0		mg/L @ pH 4.51	1	06/14/17 01:07 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	06/14/17 01:07 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	06/14/17 01:07 PM
Alkalinity, Total (As CaCO3)	182	20.0	20.0		mg/L @ pH 4.51	1	06/14/17 01:07 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *19-Jun-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (56264)
Lab Order: 1706105

Client Sample ID: MW-7
Lab ID: 1706105-03
Alternate ID: S17158172B
Collection Date: 06/07/17 01:00 PM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	0.00999	0.00500	0.0100	J	mg/L	1	06/12/17 02:24 PM
Dissolved Molybdenum	0.00916	0.00200	0.00500		mg/L	1	06/12/17 02:24 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **CVD**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	06/13/17 01:32 PM
Arsenic	0.00944	0.00200	0.00500		mg/L	1	06/13/17 01:32 PM
Barium	0.0891	0.00300	0.0100		mg/L	1	06/13/17 01:32 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 01:32 PM
Boron	0.884	0.100	0.300		mg/L	10	06/13/17 12:07 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 01:32 PM
Calcium	69.3	1.00	3.00		mg/L	10	06/13/17 12:07 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	06/13/17 01:32 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	06/13/17 01:32 PM
Lead	0.000470	0.000300	0.00100	J	mg/L	1	06/13/17 01:32 PM
Lithium	0.00998	0.00500	0.0100	J	mg/L	1	06/13/17 01:32 PM
Magnesium	10.2	0.100	0.300		mg/L	1	06/13/17 01:32 PM
Molybdenum	0.00958	0.00200	0.00500		mg/L	1	06/13/17 01:32 PM
Potassium	1.25	0.100	0.300		mg/L	1	06/13/17 01:32 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	06/13/17 01:32 PM
Sodium	110	1.00	3.00		mg/L	10	06/13/17 12:07 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	06/13/17 01:32 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/12/17 03:08 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	253	10.0	20.0		mg/L @ pH 4.51	1	06/14/17 01:16 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	06/14/17 01:16 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	06/14/17 01:16 PM
Alkalinity, Total (As CaCO3)	253	20.0	20.0		mg/L @ pH 4.51	1	06/14/17 01:16 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *19-Jun-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (56264)
Lab Order: 1706105

Client Sample ID: BV-5
Lab ID: 1706105-04
Alternate ID: S17158172C
Collection Date: 06/07/17 07:53 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	0.0192	0.00500	0.0100		mg/L	1	06/12/17 02:33 PM
Dissolved Molybdenum	0.0102	0.00200	0.00500		mg/L	1	06/12/17 02:33 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **CVD**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	06/13/17 01:39 PM
Arsenic	0.00829	0.00200	0.00500		mg/L	1	06/13/17 01:39 PM
Barium	0.0376	0.00300	0.0100		mg/L	1	06/13/17 01:39 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 01:39 PM
Boron	1.11	0.100	0.300		mg/L	10	06/13/17 12:14 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 01:39 PM
Calcium	88.8	1.00	3.00		mg/L	10	06/13/17 12:14 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	06/13/17 01:39 PM
Cobalt	0.0483	0.00300	0.00500		mg/L	1	06/13/17 01:39 PM
Lead	0.000660	0.000300	0.00100	J	mg/L	1	06/13/17 01:39 PM
Lithium	0.0207	0.00500	0.0100		mg/L	1	06/13/17 01:39 PM
Magnesium	17.1	0.100	0.300		mg/L	1	06/13/17 01:39 PM
Molybdenum	0.0100	0.00200	0.00500		mg/L	1	06/13/17 01:39 PM
Potassium	0.179	0.100	0.300	J	mg/L	1	06/13/17 01:39 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	06/13/17 01:39 PM
Sodium	171	1.00	3.00		mg/L	10	06/13/17 12:14 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	06/13/17 01:39 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/12/17 03:19 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	362	10.0	20.0		mg/L @ pH 4.53	1	06/14/17 01:38 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	06/14/17 01:38 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	06/14/17 01:38 PM
Alkalinity, Total (As CaCO3)	362	20.0	20.0		mg/L @ pH 4.53	1	06/14/17 01:38 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *19-Jun-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (56264)
Lab Order: 1706105

Client Sample ID: MW-11
Lab ID: 1706105-06
Alternate ID: S17158172E
Collection Date: 06/07/17 09:15 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	0.0129	0.00500	0.0100		mg/L	1	06/12/17 02:36 PM
Dissolved Molybdenum	0.00800	0.00200	0.00500		mg/L	1	06/12/17 02:36 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **CVD**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	06/13/17 01:42 PM
Arsenic	0.0175	0.00200	0.00500		mg/L	1	06/13/17 01:42 PM
Barium	0.0835	0.00300	0.0100		mg/L	1	06/13/17 01:42 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 01:42 PM
Boron	1.23	0.100	0.300		mg/L	10	06/13/17 12:18 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 01:42 PM
Calcium	59.8	1.00	3.00		mg/L	10	06/13/17 12:18 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	06/13/17 01:42 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	06/13/17 01:42 PM
Lead	0.00171	0.000300	0.00100		mg/L	1	06/13/17 01:42 PM
Lithium	0.0137	0.00500	0.0100		mg/L	1	06/13/17 01:42 PM
Magnesium	4.13	0.100	0.300		mg/L	1	06/13/17 01:42 PM
Molybdenum	0.00744	0.00200	0.00500		mg/L	1	06/13/17 01:42 PM
Potassium	1.44	0.100	0.300		mg/L	1	06/13/17 01:42 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	06/13/17 01:42 PM
Sodium	62.7	1.00	3.00		mg/L	10	06/13/17 12:18 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	06/13/17 01:42 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/12/17 03:24 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	148	10.0	20.0		mg/L @ pH 4.52	1	06/14/17 01:50 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	06/14/17 01:50 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	06/14/17 01:50 PM
Alkalinity, Total (As CaCO3)	148	20.0	20.0		mg/L @ pH 4.52	1	06/14/17 01:50 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *19-Jun-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (56264)
Lab Order: 1706105

Client Sample ID: MW-9
Lab ID: 1706105-07
Alternate ID: S17158172F
Collection Date: 06/07/17 01:37 PM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	0.00535	0.00500	0.0100	J	mg/L	1	06/12/17 02:38 PM
Dissolved Molybdenum	0.0912	0.00200	0.00500		mg/L	1	06/12/17 02:38 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **CVD**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	06/13/17 01:44 PM
Arsenic	0.00930	0.00200	0.00500		mg/L	1	06/13/17 01:44 PM
Barium	0.100	0.00300	0.0100		mg/L	1	06/13/17 01:44 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 01:44 PM
Boron	3.12	0.100	0.300		mg/L	10	06/13/17 12:20 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 01:44 PM
Calcium	52.0	1.00	3.00		mg/L	10	06/13/17 12:20 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	06/13/17 01:44 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	06/13/17 01:44 PM
Lead	0.000595	0.000300	0.00100	J	mg/L	1	06/13/17 01:44 PM
Lithium	0.00519	0.00500	0.0100	J	mg/L	1	06/13/17 01:44 PM
Magnesium	6.84	0.100	0.300		mg/L	1	06/13/17 01:44 PM
Molybdenum	0.0926	0.00200	0.00500		mg/L	1	06/13/17 01:44 PM
Potassium	0.922	0.100	0.300		mg/L	1	06/13/17 01:44 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	06/13/17 01:44 PM
Sodium	63.1	1.00	3.00		mg/L	10	06/13/17 12:20 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	06/13/17 01:44 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/12/17 03:26 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	140	10.0	20.0		mg/L @ pH 4.5	1	06/14/17 01:56 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.5	1	06/14/17 01:56 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.5	1	06/14/17 01:56 PM
Alkalinity, Total (As CaCO3)	140	20.0	20.0		mg/L @ pH 4.5	1	06/14/17 01:56 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level
C	Sample Result or QC discussed in the Case Narrative
E	TPH pattern not Gas or Diesel Range Pattern
MDL	Method Detection Limit
RL	Reporting Limit
B	Analyte detected in the associated Method Blank
DF	Dilution Factor
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *19-Jun-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (56264)
Lab Order: 1706105

Client Sample ID: MW-9A
Lab ID: 1706105-08
Alternate ID: S17158172G
Collection Date: 06/07/17 02:19 PM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	0.00641	0.00500	0.0100	J	mg/L	1	06/12/17 02:40 PM
Dissolved Molybdenum	0.0799	0.00200	0.00500		mg/L	1	06/12/17 02:40 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **CVD**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	06/13/17 01:46 PM
Arsenic	0.00944	0.00200	0.00500		mg/L	1	06/13/17 01:46 PM
Barium	0.0930	0.00300	0.0100		mg/L	1	06/13/17 01:46 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 01:46 PM
Boron	3.32	0.100	0.300		mg/L	10	06/13/17 12:21 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 01:46 PM
Calcium	67.5	1.00	3.00		mg/L	10	06/13/17 12:21 PM
Chromium	0.00217	0.00200	0.00500	J	mg/L	1	06/13/17 01:46 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	06/13/17 01:46 PM
Lead	0.00103	0.000300	0.00100		mg/L	1	06/13/17 01:46 PM
Lithium	0.00573	0.00500	0.0100	J	mg/L	1	06/13/17 01:46 PM
Magnesium	8.32	0.100	0.300		mg/L	1	06/13/17 01:46 PM
Molybdenum	0.0779	0.00200	0.00500		mg/L	1	06/13/17 01:46 PM
Potassium	0.791	0.100	0.300		mg/L	1	06/13/17 01:46 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	06/13/17 01:46 PM
Sodium	63.3	1.00	3.00		mg/L	10	06/13/17 12:21 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	06/13/17 01:46 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/12/17 03:28 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	140	10.0	20.0		mg/L @ pH 4.51	1	06/14/17 02:08 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	06/14/17 02:08 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	06/14/17 02:08 PM
Alkalinity, Total (As CaCO3)	140	20.0	20.0		mg/L @ pH 4.51	1	06/14/17 02:08 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level
C	Sample Result or QC discussed in the Case Narrative
E	TPH pattern not Gas or Diesel Range Pattern
MDL	Method Detection Limit
RL	Reporting Limit
B	Analyte detected in the associated Method Blank
DF	Dilution Factor
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *19-Jun-17*

CLIENT: B-Environmental
Work Order: 1706105
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_170612A

The QC data in batch 80868 applies to the following samples: 1706105-01A, 1706105-02A, 1706105-03A, 1706105-04A, 1706105-05A, 1706105-06A, 1706105-07A, 1706105-08A

Sample ID	MB-80868	Batch ID:	80868	TestNo:	SW7470A	Units:	mg/L
SampType:	MBLK	Run ID:	CETAC2_HG_170612A	Analysis Date:	6/12/2017 2:52:41 PM	Prep Date:	6/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.0000800	0.000200								

Sample ID	LCS-80868	Batch ID:	80868	TestNo:	SW7470A	Units:	mg/L
SampType:	LCS	Run ID:	CETAC2_HG_170612A	Analysis Date:	6/12/2017 2:54:57 PM	Prep Date:	6/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00212	0.000200	0.00200	0	106	85	115			

Sample ID	LCSD-80868	Batch ID:	80868	TestNo:	SW7470A	Units:	mg/L
SampType:	LCSD	Run ID:	CETAC2_HG_170612A	Analysis Date:	6/12/2017 2:57:13 PM	Prep Date:	6/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00213	0.000200	0.00200	0	106	85	115	0.471	15	

Sample ID	1706105-03A SD	Batch ID:	80868	TestNo:	SW7470A	Units:	mg/L
SampType:	SD	Run ID:	CETAC2_HG_170612A	Analysis Date:	6/12/2017 3:10:48 PM	Prep Date:	6/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.000400	0.00100	0	0				0	10	

Sample ID	1706105-03A MS	Batch ID:	80868	TestNo:	SW7470A	Units:	mg/L
SampType:	MS	Run ID:	CETAC2_HG_170612A	Analysis Date:	6/12/2017 3:15:20 PM	Prep Date:	6/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00206	0.000200	0.00200	0	103	80	120			

Sample ID	1706105-03A MSD	Batch ID:	80868	TestNo:	SW7470A	Units:	mg/L
SampType:	MSD	Run ID:	CETAC2_HG_170612A	Analysis Date:	6/12/2017 3:17:36 PM	Prep Date:	6/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00205	0.000200	0.00200	0	103	80	120	0.487	15	

Sample ID	1706105-03A PDS	Batch ID:	80868	TestNo:	SW7470A	Units:	mg/L
SampType:	PDS	Run ID:	CETAC2_HG_170612A	Analysis Date:	6/12/2017 3:45:40 PM	Prep Date:	6/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00240	0.000200	0.00250	0	96.0	85	115			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706105
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170612B

The QC data in batch 80853 applies to the following samples: 1706105-01B, 1706105-02B, 1706105-03B, 1706105-04B, 1706105-05B, 1706105-06B, 1706105-07B, 1706105-08B

Sample ID **MB-80853** Batch ID: **80853** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS5_170612B** Analysis Date: **6/12/2017 2:18:00 PM** Prep Date: **6/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Lithium	<0.00500	0.0100								
Dissolved Molybdenum	<0.00200	0.00500								

Sample ID **LCS-80853** Batch ID: **80853** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS5_170612B** Analysis Date: **6/12/2017 2:20:00 PM** Prep Date: **6/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Lithium	0.187	0.0100	0.200	0	93.7	80	120			
Dissolved Molybdenum	0.189	0.00500	0.200	0	94.6	80	120			

Sample ID **LCSD-80853** Batch ID: **80853** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS5_170612B** Analysis Date: **6/12/2017 2:22:00 PM** Prep Date: **6/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Lithium	0.187	0.0100	0.200	0	93.6	80	120	0.126	15	
Dissolved Molybdenum	0.186	0.00500	0.200	0	93.1	80	120	1.68	15	

Sample ID **1706105-03B SD** Batch ID: **80853** TestNo: **SW6020A** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS5_170612B** Analysis Date: **6/12/2017 2:25:00 PM** Prep Date: **6/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.0250	0.0500	0	0.00999				0	10	
Molybdenum	<0.0100	0.0250	0	0.00916				0	10	

Sample ID **1706105-03B PDS** Batch ID: **80853** TestNo: **SW6020A** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS5_170612B** Analysis Date: **6/12/2017 2:43:00 PM** Prep Date: **6/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.203	0.0100	0.200	0.00999	96.3	80	120			
Molybdenum	0.197	0.00500	0.200	0.00916	93.8	80	120			

Sample ID **1706105-03B MS** Batch ID: **80853** TestNo: **SW6020A** Units: **mg/L**
SampType: **MS** Run ID: **ICP-MS5_170612B** Analysis Date: **6/12/2017 2:45:00 PM** Prep Date: **6/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Lithium	0.197	0.0100	0.200	0.00999	93.4	80	120			
Dissolved Molybdenum	0.198	0.00500	0.200	0.00916	94.4	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL
DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706105
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170612B

Sample ID **1706105-03B MSD** Batch ID: **80853** TestNo: **SW6020A** Units: **mg/L**
SampType: **MSD** Run ID: **ICP-MS5_170612B** Analysis Date: **6/12/2017 2:47:00 PM** Prep Date: **6/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Lithium	0.201	0.0100	0.200	0.00999	95.7	80	120	2.32	15	
Dissolved Molybdenum	0.197	0.00500	0.200	0.00916	94.1	80	120	0.307	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706105
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170613A

The QC data in batch 80851 applies to the following samples: 1706105-01A, 1706105-02A, 1706105-03A, 1706105-04A, 1706105-05A, 1706105-06A, 1706105-07A, 1706105-08A

Sample ID **MB-80851** Batch ID: **80851** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS5_170613A** Analysis Date: **6/13/2017 12:00:00 PM** Prep Date: **6/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.000800	0.00250								
Arsenic	<0.00200	0.00500								
Barium	<0.00300	0.0100								
Beryllium	<0.000300	0.00100								
Boron	<0.0100	0.0300								
Cadmium	<0.000300	0.00100								
Calcium	<0.100	0.300								
Chromium	<0.00200	0.00500								
Cobalt	<0.00300	0.00500								
Lead	<0.000300	0.00100								
Lithium	<0.00500	0.0100								
Magnesium	<0.100	0.300								
Molybdenum	<0.00200	0.00500								
Potassium	<0.100	0.300								
Selenium	<0.00200	0.00500								
Sodium	<0.100	0.300								
Thallium	<0.000500	0.00150								

Sample ID **LCS-80851** Batch ID: **80851** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS5_170613A** Analysis Date: **6/13/2017 12:02:00 PM** Prep Date: **6/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.197	0.00250	0.200	0	98.7	80	120			
Arsenic	0.198	0.00500	0.200	0	98.9	80	120			
Barium	0.195	0.0100	0.200	0	97.3	80	120			
Beryllium	0.199	0.00100	0.200	0	99.6	80	120			
Boron	0.191	0.0300	0.200	0	95.4	80	120			
Cadmium	0.197	0.00100	0.200	0	98.5	80	120			
Calcium	5.09	0.300	5.00	0	102	80	120			
Chromium	0.196	0.00500	0.200	0	98.2	80	120			
Cobalt	0.200	0.00500	0.200	0	99.9	80	120			
Lead	0.196	0.00100	0.200	0	98.2	80	120			
Lithium	0.197	0.0100	0.200	0	98.3	80	120			
Magnesium	5.05	0.300	5.00	0	101	80	120			
Molybdenum	0.190	0.00500	0.200	0	94.8	80	120			
Potassium	4.95	0.300	5.00	0	99.1	80	120			
Selenium	0.197	0.00500	0.200	0	98.6	80	120			
Sodium	5.18	0.300	5.00	0	104	80	120			
Thallium	0.204	0.00150	0.200	0	102	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706105
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170613A

Sample ID **LCSD-80851**	Batch ID: **80851**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **LCSD**	Run ID: **ICP-MS5_170613A**	Analysis Date: **6/13/2017 12:04:00 PM**	Prep Date: **6/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.198	0.00250	0.200	0	98.9	80	120	0.215	15	
Arsenic	0.199	0.00500	0.200	0	99.7	80	120	0.809	15	
Barium	0.194	0.0100	0.200	0	97.2	80	120	0.095	15	
Beryllium	0.199	0.00100	0.200	0	99.4	80	120	0.214	15	
Boron	0.204	0.0300	0.200	0	102	80	120	6.78	15	
Cadmium	0.195	0.00100	0.200	0	97.5	80	120	1.02	15	
Calcium	4.96	0.300	5.00	0	99.3	80	120	2.53	15	
Chromium	0.194	0.00500	0.200	0	96.9	80	120	1.36	15	
Cobalt	0.201	0.00500	0.200	0	100	80	120	0.402	15	
Lead	0.196	0.00100	0.200	0	98.0	80	120	0.228	15	
Lithium	0.196	0.0100	0.200	0	98.1	80	120	0.140	15	
Magnesium	5.06	0.300	5.00	0	101	80	120	0.309	15	
Molybdenum	0.189	0.00500	0.200	0	94.3	80	120	0.493	15	
Potassium	4.95	0.300	5.00	0	99.0	80	120	0.086	15	
Selenium	0.199	0.00500	0.200	0	99.5	80	120	0.906	15	
Sodium	5.17	0.300	5.00	0	103	80	120	0.186	15	
Thallium	0.202	0.00150	0.200	0	101	80	120	0.901	15	

Sample ID **1706105-03A SD**	Batch ID: **80851**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **SD**	Run ID: **ICP-MS5_170613A**	Analysis Date: **6/13/2017 12:09:00 PM**	Prep Date: **6/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	1.20	1.50	0	0.884				30.7	10	R
Calcium	70.5	15.0	0	69.3				1.73	10	
Sodium	111	15.0	0	110				1.14	10	

Sample ID **1706105-03A PDS**	Batch ID: **80851**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **PDS**	Run ID: **ICP-MS5_170613A**	Analysis Date: **6/13/2017 12:27:00 PM**	Prep Date: **6/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	3.06	0.300	2.00	0.884	109	80	120			
Calcium	117	3.00	50.0	69.3	95.8	80	120			
Sodium	162	3.00	50.0	110	105	80	120			

Sample ID **1706105-03A MS**	Batch ID: **80851**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **MS**	Run ID: **ICP-MS5_170613A**	Analysis Date: **6/13/2017 12:28:00 PM**	Prep Date: **6/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	1.26	0.300	0.200	0.884	190	80	120			S
Calcium	71.3	3.00	5.00	69.3	41.0	80	120			S
Sodium	113	3.00	5.00	110	65.7	80	120			S

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706105
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170613A

Sample ID	1706105-03A MSD	Batch ID:	80851	TestNo:	SW6020A	Units:	mg/L
SampType:	MSD	Run ID:	ICP-MS5_170613A	Analysis Date:	6/13/2017 12:30:00 PM	Prep Date:	6/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	1.27	0.300	0.200	0.884	191	80	120	0.150	15	S
Calcium	73.8	3.00	5.00	69.3	90.1	80	120	3.38	15	
Sodium	115	3.00	5.00	110	103	80	120	1.62	15	

Sample ID	1706105-03A SD	Batch ID:	80851	TestNo:	SW6020A	Units:	mg/L
SampType:	SD	Run ID:	ICP-MS5_170613A	Analysis Date:	6/13/2017 1:33:00 PM	Prep Date:	6/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.00400	0.0125	0	0				0	10	
Arsenic	0.0103	0.0250	0	0.00944				8.71	10	
Barium	0.0877	0.0500	0	0.0891				1.52	10	
Beryllium	<0.00150	0.00500	0	0				0	10	
Cadmium	<0.00150	0.00500	0	0				0	10	
Chromium	<0.0100	0.0250	0	0				0	10	
Cobalt	<0.0150	0.0250	0	0				0	10	
Lead	<0.00150	0.00500	0	0.000470				0	10	
Lithium	<0.0250	0.0500	0	0.00998				0	10	
Magnesium	10.0	1.50	0	10.2				1.91	10	
Molybdenum	<0.0100	0.0250	0	0.00958				0	10	
Potassium	1.24	1.50	0	1.25				1.08	10	
Selenium	<0.0100	0.0250	0	0				0	10	
Thallium	<0.00250	0.00750	0	0				0	10	

Sample ID	1706105-03A PDS	Batch ID:	80851	TestNo:	SW6020A	Units:	mg/L
SampType:	PDS	Run ID:	ICP-MS5_170613A	Analysis Date:	6/13/2017 1:49:00 PM	Prep Date:	6/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.199	0.00250	0.200	0	99.5	80	120			
Arsenic	0.205	0.00500	0.200	0.00944	97.8	80	120			
Barium	0.281	0.0100	0.200	0.0891	95.7	80	120			
Beryllium	0.198	0.00100	0.200	0	98.9	80	120			
Cadmium	0.196	0.00100	0.200	0	97.9	80	120			
Chromium	0.201	0.00500	0.200	0	101	80	120			
Cobalt	0.195	0.00500	0.200	0	97.5	80	120			
Lead	0.194	0.00100	0.200	0.000470	96.6	80	120			
Lithium	0.201	0.0100	0.200	0.00998	95.6	80	120			
Magnesium	14.3	0.300	5.00	10.2	82.3	80	120			
Molybdenum	0.197	0.00500	0.200	0.00958	93.6	80	120			
Potassium	5.88	0.300	5.00	1.25	92.6	80	120			
Selenium	0.191	0.00500	0.200	0	95.7	80	120			
Thallium	0.201	0.00150	0.200	0	100	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706105
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170613A

Sample ID **1706105-03A MS**	Batch ID: **80851**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **MS**	Run ID: **ICP-MS5_170613A**	Analysis Date: **6/13/2017 1:51:00 PM**	Prep Date: **6/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.200	0.00250	0.200	0	99.9	80	120			
Arsenic	0.203	0.00500	0.200	0.00944	96.9	80	120			
Barium	0.282	0.0100	0.200	0.0891	96.2	80	120			
Beryllium	0.193	0.00100	0.200	0	96.7	80	120			
Cadmium	0.193	0.00100	0.200	0	96.4	80	120			
Chromium	0.193	0.00500	0.200	0	96.6	80	120			
Cobalt	0.193	0.00500	0.200	0	96.4	80	120			
Lead	0.194	0.00100	0.200	0.000470	96.8	80	120			
Lithium	0.200	0.0100	0.200	0.00998	95.3	80	120			
Magnesium	14.8	0.300	5.00	10.2	90.9	80	120			
Molybdenum	0.199	0.00500	0.200	0.00958	94.6	80	120			
Potassium	5.98	0.300	5.00	1.25	94.5	80	120			
Selenium	0.188	0.00500	0.200	0	94.2	80	120			
Thallium	0.205	0.00150	0.200	0	102	80	120			

Sample ID **1706105-03A MSD**	Batch ID: **80851**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **MSD**	Run ID: **ICP-MS5_170613A**	Analysis Date: **6/13/2017 1:53:00 PM**	Prep Date: **6/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.199	0.00250	0.200	0	99.4	80	120	0.567	15	
Arsenic	0.202	0.00500	0.200	0.00944	96.2	80	120	0.675	15	
Barium	0.283	0.0100	0.200	0.0891	97.0	80	120	0.580	15	
Beryllium	0.193	0.00100	0.200	0	96.3	80	120	0.397	15	
Cadmium	0.192	0.00100	0.200	0	96.2	80	120	0.200	15	
Chromium	0.193	0.00500	0.200	0	96.4	80	120	0.216	15	
Cobalt	0.192	0.00500	0.200	0	96.0	80	120	0.436	15	
Lead	0.192	0.00100	0.200	0.000470	95.8	80	120	0.941	15	
Lithium	0.198	0.0100	0.200	0.00998	93.9	80	120	1.34	15	
Magnesium	14.9	0.300	5.00	10.2	93.1	80	120	0.743	15	
Molybdenum	0.199	0.00500	0.200	0.00958	94.7	80	120	0.097	15	
Potassium	5.96	0.300	5.00	1.25	94.2	80	120	0.215	15	
Selenium	0.189	0.00500	0.200	0	94.5	80	120	0.368	15	
Thallium	0.202	0.00150	0.200	0	101	80	120	1.53	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706105
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_170614A

The QC data in batch 80902 applies to the following samples: 1706105-01C, 1706105-02C, 1706105-03C, 1706105-04C, 1706105-05C, 1706105-06C, 1706105-07C, 1706105-08C

Sample ID **MB-80902** Batch ID: **80902** TestNo: **M2320 B** Units: **mg/L @ pH 4.22**
SampType: **MBLK** Run ID: **TITRATOR_170614A** Analysis Date: **6/14/2017 10:31:00 AM** Prep Date: **6/14/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0								
Alkalinity, Total (As CaCO3)	<20.0	20.0								

Sample ID **LCS-80902** Batch ID: **80902** TestNo: **M2320 B** Units: **mg/L @ pH 4.2**
SampType: **LCS** Run ID: **TITRATOR_170614A** Analysis Date: **6/14/2017 10:35:00 AM** Prep Date: **6/14/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	51.0	20.0	50.00	0	102	74	129			

Sample ID **1706089-03C-DUP** Batch ID: **80902** TestNo: **M2320 B** Units: **mg/L @ pH 4.52**
SampType: **DUP** Run ID: **TITRATOR_170614A** Analysis Date: **6/14/2017 11:32:00 AM** Prep Date: **6/14/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	251	20.0	0	249.3				0.680	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	251	20.0	0	249.3				0.680	20	

Sample ID **1706105-03C-DUP** Batch ID: **80902** TestNo: **M2320 B** Units: **mg/L @ pH 4.52**
SampType: **DUP** Run ID: **TITRATOR_170614A** Analysis Date: **6/14/2017 1:25:00 PM** Prep Date: **6/14/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	251	20.0	0	253.0				0.953	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	251	20.0	0	253.0				0.953	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

2609 North River Road, Port Allen, Louisiana 70767
(800) 401-4277 -- FAX (225) 381-2996

ARS International, LLC

Laboratory Analysis Report

ARS1-17-01679

Prepared for:

B-Environmental

Kevin Baros
1606 East Brazos Street
Suite D
Victoria, TX 77901

dbenviro@suddenlinkmail.com; cbenviro@suddenlinkmail.com
swbenviro@suddenlinkmail.com

Phone: 361-572-8224
Fax: 361-572-4115

Project Manager Review

Management Review

Notes: ARS International, LLC assumes no liability for the use or the interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

Contact Person: Questions regarding this analytical report should be addressed to:

Project Manager
ProjectManagers@amrad.com

Phone: 225.381.2991
Fax: 225.381.2996

LELAP Cert# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01679
Client Sample ID: S171581725 (BATCH 56264)
Sample Collection Date: 06/07/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01679-001
Date Received: 06/12/17
Report Date: 07/11/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.264	0.150	0.164	0.062	NP		pCi/L	ARS-010/EPA 903.0/904.0	07/07/17 7:55	SCAUSEY	95%
Ra-228	0.981	0.875	1.402	0.650	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/30/17 12:25	SCAUSEY	75%

Project Manager Review

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01679
Client Sample ID: S17158172A (BATCH 56264)
Sample Collection Date: 06/07/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01679-002
Date Received: 06/12/17
Report Date: 07/11/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.213	0.127	0.145	0.055	NP		pCi/L	ARS-010/EPA 903.0/904.0	07/07/17 7:55	SCAUSEY	100%
Ra-228	0.451	0.732	1.246	0.576	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/30/17 12:25	SCAUSEY	79%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01679
Client Sample ID: S171581728 (BATCH 56264)
Sample Collection Date: 06/07/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01679-003
Date Received: 06/12/17
Report Date: 07/11/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.115	0.105	0.150	0.056	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/07/17 7:55	SCAUSEY	94%
Ra-228	0.886	0.781	1.247	0.576	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/30/17 12:25	SCAUSEY	85%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01679
Client Sample ID: S17158172C (BATCH 56264)
Sample Collection Date: 06/07/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01679-004
Date Received: 06/12/17
Report Date: 07/11/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.295	0.165	0.202	0.083	NP		pCi/L	ARS-010/EPA 903.0/904.0	07/07/17 7:55	SCAUSEY	93%
Ra-228	1.162	0.850	1.325	0.618	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/30/17 12:25	SCAUSEY	90%

Project Manager Review

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01679
Client Sample ID: S17158172D (BATCH 56264)
Sample Collection Date: 06/07/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01679-005
Date Received: 06/12/17
Report Date: 07/11/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.237	0.148	0.188	0.075	NP		pCi/L	ARS-010/EPA 903.0/904.0	07/07/17 7:55	SCAUSEY	98%
Ra-228	1.340	0.955	1.478	0.688	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/30/17 12:25	SCAUSEY	73%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01679
Client Sample ID: S17158172E (BATCH 56264)
Sample Collection Date: 06/07/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01679-006
Date Received: 06/12/17
Report Date: 07/11/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.165	0.130	0.180	0.071	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/07/17 7:55	SCAUSEY	102%
Ra-228	0.337	0.823	1.430	0.665	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/30/17 12:25	SCAUSEY	76%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01678
Client Sample ID: S17158172F (BATCH 56264)
Sample Collection Date: 06/07/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01678-001
Date Received: 06/12/17
Report Date: 07/11/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.199	0.124	0.145	0.055	NP		pCi/L	ARS-010/EPA 903.0/904.0	06/30/17 8:50	CTRAMEL	106%
Ra-228	0.277	0.922	1.602	0.757	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/23/17 12:57	CTRAMEL	91%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01678
Client Sample ID: S17158172G (BATCH 56264)
Sample Collection Date: 06/07/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01678-002
Date Received: 06/12/17
Report Date: 07/11/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.094	0.101	0.156	0.059	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/03/17 8:20	CTRAMEL	103%
Ra-228	0.471	0.795	1.356	0.628	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/26/17 12:49	CTRAMEL	78%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

INTERNATIONAL

QC Results Report

Sample Delivery Group: ARS1-17-01679

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-01292	LCS	RA-226	23.401	3.782	0.100	27.583	N/A	pCi/L	ARS-010/EPA 903	7/7/17 9:54	SC	85	75%-125%
ARS1-B17-01292	LCS	RA-228	38.098	6.362	1.144	39.784	N/A	pCi/L	ARS-010/EPA 904	6/30/17 14:25	SC	96	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-01292	MBL	RA-226	0.002	0.042	0.089	NA	U	pCi/L	ARS-010/EPA 903	7/7/17 9:54	SC
ARS1-B17-01292	MBL	RA-228	-0.243	0.394	0.745	NA	U	pCi/L	ARS-010/EPA 904	6/30/17 14:25	SC

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-01292	LCSD	RA-226	23.401	3.782	30.882	4.972	N/A	pCi/L	ARS-010/EPA 903	7/7/17 9:54	SC	0.85	< 1
ARS1-B17-01292	LCSD	RA-228	38.098	6.362	36.452	6.073	N/A	pCi/L	ARS-010/EPA 904	6/30/17 14:25	SC	0.13	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-01292	LCSD	RA-226	23.401	3.782	30.882	4.972	N/A	pCi/L	ARS-010/EPA 903	7/7/17 9:54	SC	1.20	< 3
ARS1-B17-01292	LCSD	RA-228	38.098	6.362	36.452	6.073	N/A	pCi/L	ARS-010/EPA 904	6/30/17 14:25	SC	0.19	< 3

Matrix Spike

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery(%)	MS Acceptance Range
ARS1-B17-01292	MS	Ra-226	48.347	7.803	0.128	55.903	N/A	pCi/L	ARS-010/EPA 903	7/7/17 9:54	SC	86	60%-140%
ARS1-B17-01292	MS	Ra-228	40.187	6.773	1.496	51.707	N/A	pCi/L	ARS-010/EPA 903	6/30/17 14:25	SC	78	60%-140%
ARS1-B17-01292	MSD	Ra-226	58.005	9.330	0.142	55.580	N/A	pCi/L	ARS-010/EPA 904	7/7/17 9:54	SC	104	60%-140%
ARS1-B17-01292	MSD	Ra-228	49.101	8.184	1.547	51.297	N/A	pCi/L	ARS-010/EPA 904	6/30/17 14:25	SC	96	60%-140%

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

Batch # 56264

INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

QC Results Report

Sample Delivery Group: ARS1-17-01678

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-01229	LCS	RA-226	26.761	4.314	0.095	27.513	N/A	pCi/L	ARS-010/EPA 903	6/30/17 8:49	CT	97	75%-125%
ARS1-B17-01229	LCS	RA-228	37.902	6.314	1.125	39.784	N/A	pCi/L	ARS-010/EPA 904	6/30/17 8:49	CT	95	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-01229	MBL	RA-226	0.015	0.049	0.094	NA	U	pCi/L	ARS-010/EPA 903	6/30/17 8:49	CT
ARS1-B17-01229	MBL	RA-228	-0.288	0.323	0.621	NA	U	pCi/L	ARS-010/EPA 904	6/30/17 8:49	CT

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-01229	LCSD	RA-226	26.761	4.314	30.342	4.894	N/A	pCi/L	ARS-010/EPA 903	6/30/17 8:49	CT	0.39	< 1
ARS1-B17-01229	LCSD	RA-228	37.902	6.314	39.765	6.630	N/A	pCi/L	ARS-010/EPA 904	6/30/17 8:49	CT	0.14	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-01229	LCSD	RA-226	26.761	4.314	30.342	4.894	N/A	pCi/L	ARS-010/EPA 903	6/30/17 8:49	CT	0.55	< 3
ARS1-B17-01229	LCSD	RA-228	37.902	6.314	39.765	6.630	N/A	pCi/L	ARS-010/EPA 904	6/30/17 8:49	CT	0.20	< 3

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

INTERNATIONAL

QC Results Report

Sample Delivery Group: ARS1-17-01678

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-01240	LCS	RA-226	27.226	4.387	0.100	27.564	N/A	pCi/L	ARS-010/EPA 903	7/3/17 10:19	CT	99	75%-125%
ARS1-B17-01240	LCS	RA-228	40.447	6.704	1.054	39.784	N/A	pCi/L	ARS-010/EPA 904	6/26/17 14:48	CT	102	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-01240	MBL	RA-226	0.064	0.068	0.105	NA	U	pCi/L	ARS-010/EPA 903	7/3/17 10:19	CT
ARS1-B17-01240	MBL	RA-228	0.022	0.495	0.888	NA	U	pCi/L	ARS-010/EPA 904	6/26/17 14:48	CT

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-01240	LCSD	RA-226	27.226	4.387	27.378	4.420	N/A	pCi/L	ARS-010/EPA 903	7/3/17 10:19	CT	0.02	< 1
ARS1-B17-01240	LCSD	RA-228	40.447	6.704	41.050	6.822	N/A	pCi/L	ARS-010/EPA 904	6/26/17 14:48	CT	0.04	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-01240	LCSD	RA-226	27.226	4.387	27.378	4.420	N/A	pCi/L	ARS-010/EPA 903	7/3/17 10:19	CT	0.02	< 3
ARS1-B17-01240	LCSD	RA-228	40.447	6.704	41.050	6.822	N/A	pCi/L	ARS-010/EPA 904	6/26/17 14:48	CT	0.06	< 3

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

ARS INTERNATIONAL
2609 North River Road • Port Allen, Louisiana 70767
1 (800) 401-4277 • Fax (225) 381-2996

Notes (Case Narrative):

Comments:

1.0) All MDA/MDC values are calculated on a sample specific basis.
2.0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.
3.0) Data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.
4.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix. Modified analyses are indicated by the subsequent addition of "m" to the procedure number (i.e. 900.0M).
5.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than the actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
6.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228 (Gamma Spectroscopy only).
7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234 (Gamma Spectroscopy only).
8.0) All gamma spectroscopy was performed utilizing high purity germanium detectors (**HPGe**).
9.0) ARS makes every attempt to match sample density to calibrated density; however, in some cases, it is not practical or possible to do so and data results may be affected (Gamma Spectroscopy only).
10.0) Gamma spectroscopy results are calculated values based on the **ORTEC®** GammaVision ENV32 Analysis Engine.
11.0) ACLASS DOD and ISO 17025 certification applies only to the following analytes and methods: Gross Alpha and Gross Beta (EPA 900, SM7110B&C, SW846 9310); Radium 226 (EPA 903, EPA 903.1, SM 7500 Ra-B, SW846 9315); Radium 228 (EPA 904, SM 7500 Ra-B SW846 9320); Iodine-131(EPA 901.1); Uranium by ICPMS (EPA 200.8); Strontium 89/90 (EPA 905, Eichrom SRW01, HASL 300 Sr-03-RC); Tritium (EPA 906, EPA 906M); Gamma Emitters (EPA 901.1, SM7120B, HASL 300 Ga-01-R); Americium-241, Curium 242/244, Plutonium 239/240 and 241, Thorium 228/230/232, Uranium 234/233 and 238 (Eichrom ACW03 VBS); Lead 210 (HASL 300 Pb-01-RC, Eichrom OTW01); Polonium 210 (HASL 300 Po-01-RC, HASL 300 Po-02-RC); Technetium-99 (Eichrom TCW02, Eichrom TCS01M).

Method References:

1.0) **EPA 600/4-80-032**; Prescribed Procedures for the Measurements of Radioactivity in Drinking Water, August 1980.
2.0) **Standard Methods for the Examination of Water and Wastewater** (On-Line Edition)
3.0) **EPA SW-846**; Test Methods for Evaluating Solid Waste, (On-Line edition)
4.0) **EPA 600/4/79-020**; Methods for Chemical Analysis of Water and Waste, March 1983.
5.0) **HASL 300**; The Procedures Manual of the Environmental Measurements Laboratory, Volume I, 28th Edition February, 1997.

Definitions:

CRDL	Contract Required Detection Limit
CSU	Combined Standard Uncertainty
DLC	Decision Level Concentration (ANSI N42.23) or critical level
DO	Duplicate Original
DUP	Method Duplicate
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
MDA	Minimum Detectable Activity
MDC	(Minimum Detectable Concentration) minimum concentration of the analyte that ARS can detect utilizing the specific analysis
MBL	Method Blank
MS/MSD	Matrix Spike/Matrix Spike Duplicate
N/A	Not Applicable
NP	Not Provided
NR	Not Referenced
LOD	Limit of Detection
LOQ	Limit of Quantitation

Data Qualifiers:

B	The analyte is found in both the associated method blank and the sample. This flag indicates probable blank contamination.
D	Sample analysis accomplished through dilution.
J	The reported result is an estimated value above the limit of detection but outside of quantitation range (e.g., matrix interference was observed).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).
U	Activity is below the MDC, MDA, MDL, or LOD
N	The analyte is a tentatively identified compound using mass spectrometry or any non-customer requested compounds that are tentatively identified.
*	LCS/LCSD or MS/MSD fails RPD criteria.
S	Spike
SC	Subcontracted out to another qualified laboratory
H	Holding time exceeded

LELAP Cert# 01949 ***NELAP Cert# E87558***

ARS-059-010
Revision: 9.1
Revision Date: 03-14-2017

B Environmental Laboratory, LLC

1606 E Brazos Suite D Victoria, Texas 77901 ph. (361) 572-8224

Chain Of Custody Record

Batch # 56264 | TEMP UN-C: 4.9 | Page 1 of 2

THERM ID# 3 | TEMP Corr: 4.7

Customer / Report Information | **Billing Information** | X Check box if Billing is the same as Report Information

Name: Coleto Creek Power	Address:	Phone: 361-788-5145 FAX:
Attention: Rick Coleman	Attention: PO #	EMAIL: richard.coleman@dynegy.com
Address: P.O. Box 8; Fannin, TX 77960	Project: CCR Sampling Comments:	Requested Analysis / Completed By laboratory

Sample Information			Matrix	Container			Preservative			Metals* (D)	Cl, F*, SO4 (A)	pH (A)	TDS (C)	Ra226 & Ra228 (F)	Alk:Tot, Carb,BiCarb (B)	Diss Li & Mo (E)	Custody Seals Present / Intact / LAB Sample Number
Client / Field Sample ID	Collected Date	Collected Time	G = Grab C = Composite	DW - Drinking H20, S - Solid, WW - Waste H20, SL - Sludge, L - Liquid, w - Water	TYPE	NUMBER / Size											
Dup 2	6-7-17		G	WW	P	6 1L 500mL 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE	☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3		X	X	X	X	X	X	X	S171581725
MW-6		1043	G	WW	P	6 1L 500mL 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE	☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3		X	X	X	X	X	X	X	S17158172A
MW-7		1300	G	WW	P	6 1L 500mL 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE	☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3		X	X	X	X	X	X	X	S17158172B
BV-5		753	G	WW	P	6 1L 500mL 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE	☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3		X	X	X	X	X	X	X	S17158172C
PB-3		846	G	WW	P	6 1L 500mL 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE	☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3		X	X	X	X	X	X	X	S17158172D
MW-11		915	G	WW	P	6 1L 500mL 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE	☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3		X	X	X	X	X	X	X	S17158172E
			G	WW	P	6 1L 500mL 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE	☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3		X	X	X	X	X	X	X	

Custody Seals Present: Yes ☐ No ☐ Intact: Yes ☐ No ☐

Required Turnaround: ☒ Routine (6-10 Business days) **Expedite / Rush:** ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business days ☐ 5 Business days ☐ Other _____ REMARKS:

Surcharge will apply to RUSH TAT Authorized BY: | **Container Type: P=Plastic, G=Glass, V=Voa, O=Other** | **Carrier ID :**

Relinquished By:	Date: 6-7-17	Time: 1620	Received By:	Date: 6-7-17	Time: 16:20
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By	Date:	Time:	Received By:	Date:	Time:

FLuoride: MAL 0.25 mg/L Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Mg,K,Na, & Hg

B Environmental Laboratory, LLC
1606 E Brazos Suite D Victoria, Texas 77901 ph. (361) 572-8224

Chain Of Custody Record

Batch # 562604 | TEMP UN-C: 4.9 | Page 2 of 2
X Check box if Billing is the same as Report Information | THERM ID# 3 | TEMP Corr: 4.7

Customer / Report Information	Billing Information		
Name: Coleto Creek Power	Address:	Phone: 361-788-5145	FAX:
Attention: Rick Coleman	Attention: PO #	EMAIL: richard.coleman@dynegy.com	
Address: P.O. Box 8; Fannin, TX 77960	Project: CCR Sampling Comments:	Requested Analysis	Completed By laboratory

Sample Information
Collected By:

Matrix: DW - Drinking H20, S - Solid, WW - Waste H20, SL - Sludge, L - Liquid, w - Water
G = Grab, C = Composite

Custody Seals Present: Yes ☐ No ☐
Intact: Yes ☐ No ☐

Client / Field Sample ID	Collected Date	Collected Time	G/C	Matrix	Type	Number	Size	Preservative	Metals*	Cl, F*, SO4	pH	TDS	Ra226 & Ra228	Alk:Tot, Carb,BiCarb	Diss Li & Mo		LAB Sample Number
ms \ mw7	6-7-17	1300	G	WW	P	6	1L, 500mL, 250mL	☐ H_2SO_4 ☐ H_3PO_4 ☒ ICE ☐ ___ ☒ HNO_3 ☐ NaOH ☐ HCL ☐ Na_2SO_3	X	X	X	X	X	X	X		
msD \ mw7	6-7-17	1300	G	WW	P	6	1L, 500mL, 250mL	☐ H_2SO_4 ☐ H_3PO_4 ☒ ICE ☐ ___ ☒ HNO_3 ☐ NaOH ☐ HCL ☐ Na_2SO_3	X	X	X	X	X	X	X		
mw-9	6-7-17	1337	G	WW	P	6	1L, 500mL, 250mL	☐ H_2SO_4 ☐ H_3PO_4 ☒ ICE ☐ ___ ☒ HNO_3 ☐ NaOH ☐ HCL ☐ Na_2SO_3	X	X	X	X	X	X	X		S17158172F
mw-9A	6-7-17	1419	G	WW	P	6	1L, 500mL, 250mL	☐ H_2SO_4 ☐ H_3PO_4 ☒ ICE ☐ ___ ☒ HNO_3 ☐ NaOH ☐ HCL ☐ Na_2SO_3	X	X	X	X	X	X	X		S17158172G
			G	WW	P	6	1L, 500mL, 250mL	☐ H_2SO_4 ☐ H_3PO_4 ☒ ICE ☐ ___ ☒ HNO_3 ☐ NaOH ☐ HCL ☐ Na_2SO_3	X	X	X	X	X	X	X		
			G	WW	P	6	1L, 500mL, 250mL	☐ H_2SO_4 ☐ H_3PO_4 ☒ ICE ☐ ___ ☒ HNO_3 ☐ NaOH ☐ HCL ☐ Na_2SO_3	X	X	X	X	X	X	X		
			G	WW	P	6	1L, 500mL, 250mL	☐ H_2SO_4 ☐ H_3PO_4 ☒ ICE ☐ ___ ☒ HNO_3 ☐ NaOH ☐ HCL ☐ Na_2SO_3	X	X	X	X	X	X	X		

Required Turnaround: ☒ Routine (6-10 Business days) Expedite / Rush: ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business days ☐ 5 Business days ☐ Other REMARKS:

Surcharge will apply to RUSH TAT Authorized BY: | Container Type: P=Plastic, G=Glass, V=Voa, O=Other | Carrier ID :

Relinquished By: [signature]	Date: 6-7-17	Time: 1620	Received By: [signature]	Date: 6-7-17	Time: 16:20
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By	Date:	Time:	Received By:	Date:	Time:

FLuoride: MAL 0.25 mg/L Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Mg,K,Na, & Hg

BatchNo: 56182

SAMPLE REPORT

T104704328-17-14

Business

Coleto Creek Power - R Coleman
PO Box 8
Fannin TX 77960
Att: Rick Coleman

Laboratory

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901
ph. 361-572-8224

Reference Information

Project: CCR Sampling

Printed: Wednesday, July 12, 2017

Re: Coleto Creek Power - R Coleman

Dear: Rick Coleman

Attached are the results for sample(s) received on 6/6/2017

The analytical results relate only to the samples tested.
All supporting quality data meets the requirements of NELAC unless noted in the case narrative section of the report.

This report contains 50 pages (including the cover page)

If you have any questions concerning this report, please do not hesitate to call (361) 572-8224 or Fax us at (361) 572-4115

Respectfully Submitted,

Kevin Baros

Laboratory Director

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56182 **Page 2 of 50**

Batch No: 56182

Sample Receipt Checklist

Date Received: 6/6/2017

Project	CCR Sampling	Received By:	Woodruff
Login completed by:	Woodruff	6/6/2017	
	Signature	LoginDate:	

Carrier Name: Walk In

Shipping container/cooler in good condition?	☑ YES	☐ NO	☐ Not Present	
Custody seals intact on shipping container/cooler?	☐ YES	☐ NO	☑ Not Present	
Custody seals intact on sample bottles?	☐ YES	☐ NO	☑ Not Present	
Chain of Custody present?	☑ YES	☐ NO		
Chain of Custody signed when relinquished and received	☑ YES	☐ NO		
Chain of Custody agrees with sample labels?	☑ YES	☐ NO		
Samples in proper container/bottles?	☑ YES	☐ NO		
Sample containers intact?	☑ YES	☐ NO		
Sufficient sample volume for indicated tests?	☑ YES	☐ NO		
All samples received within holding times?	☑ YES	☐ NO		
Container/Temp Blank - temperature in compliance?	☑ YES	☐ NO	>0 <6 °C On Ice	
Water - VOA vials have zero headspace? Bubble < 6mm?	☐ YES	☐ NO	☑ No VOA Vials submitted	
Water - pH acceptable upon receipt?	☑ YES	☐ NO	☐ Not Applicable	

*TEMP 7.6/7.4 pH Adjusted? No Checked By L. Vahrenkamp

Any No and/or N/A (not applicable) response must be detailed in the comments section below.

Client contacted		PersonContacted	
Contacted by:		Date Contacted:	

Regarding

Comments

Therm #3. HNO3 Lot # 2-42-12. pH Paper Lot # 2-25-6. The samples were received the same day they were collected and were in the process of cooling.

Corrective Action

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56182

Sample Report Information

Sample ID:	S171571808	Client ID:	Dup 1	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: Dup
Notes:

Batch No: 56182
Sampled: 6/6/2017 12:00 AM

Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	72	mg/L	EPA 300	K Baros	6/8/2017 1:42	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	269	mg/L	SM 2320 B		6/14/2017 11:13	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/14/2017 11:13	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	269	mg/L	SM 2320 B		6/14/2017 11:13	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.43	mg/L	EPA 300	K Baros	6/8/2017 1:42	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	6.82	SU	SM 4500-H+B	C Watts	6/7/2017 11:00					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	546	mg/L	SM2540C	C Watts	6/8/2017 15:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			6/13/2017 12:58					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	83.7	mg/L	EPA 300	K Baros	6/8/2017 1:42	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/3/2017 8:20					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56182

Sample Report Information

Sample ID:	S17157180A	Client ID:	Blk	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: Blank
Notes:

Batch No: 56182
Sampled: 6/6/2017 3:15 PM

Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	< 1	mg/L	EPA 300	K Baros	6/7/2017 17:27	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	< 20	mg/L	SM 2320 B		6/14/2017 11:14	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/14/2017 11:14	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	< 20	mg/L	SM 2320 B		6/14/2017 11:14	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	< 0.25	mg/L	EPA 300	K Baros	6/7/2017 17:27	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	5.75	SU	SM 4500-H+B	C Watts	6/7/2017 11:00					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	< 25	mg/L	SM2540C	C Watts	6/8/2017 15:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			6/13/2017 12:32					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	< 1	mg/L	EPA 300	K Baros	6/7/2017 17:27	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/3/2017 8:20					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56182

Sample Report Information

Sample ID:	S17157180B	Client ID:	MW-4	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #4
Notes:

Batch No: 56182
Sampled: 6/6/2017 11:28 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	101	mg/L	EPA 300	K Baros	6/7/2017 18:05	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	249	mg/L	SM 2320 B		6/14/2017 11:24	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/14/2017 11:24	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	249	mg/L	SM 2320 B		6/14/2017 11:24	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.63	mg/L	EPA 300	K Baros	6/7/2017 18:05	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	6.87	SU	SM 4500-H+B	C Watts	6/7/2017 11:00					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	728	mg/L	SM2540C	C Watts	6/9/2017 15:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			6/13/2017 12:48					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	157	mg/L	EPA 300	K Baros	6/7/2017 18:05	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/3/2017 8:20					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56182

Sample Report Information

Sample ID:	S17157180C	Client ID:	MW-8	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #8
Notes:

Batch No: 56182
Sampled: 6/6/2017 8:53 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	72	mg/L	EPA 300	K Baros	6/7/2017 19:59	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	271	mg/L	SM 2320 B		6/14/2017 11:42	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/14/2017 11:42	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	271	mg/L	SM 2320 B		6/14/2017 11:42	10	10			☑	PCS Cert No. T104704361-08
Fluoride, IC	0.45	mg/L	EPA 300	K Baros	6/7/2017 19:59	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	6.97	SU	SM 4500-H+B	C Watts	6/7/2017 11:00					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	570	mg/L	SM2540C	C Watts	6/9/2017 15:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			6/13/2017 13:02					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	83.5	mg/L	EPA 300	K Baros	6/7/2017 19:59	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/3/2017 8:20					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56182

Sample Report Information

Sample ID:	S17157180D	Client ID:	BV-1	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV-1
Notes:

Batch No: 56182
Sampled: 6/6/2017 2:34 PM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	142	mg/L	EPA 300	K Baros	6/7/2017 21:54	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	403	mg/L	SM 2320 B		6/14/2017 11:56	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/14/2017 11:56	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	403	mg/L	SM 2320 B		6/14/2017 11:56	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.73	mg/L	EPA 300	K Baros	6/7/2017 21:54	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.03	SU	SM 4500-H+B	C Watts	6/7/2017 11:00					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	996	mg/L	SM2540C	C Watts	6/9/2017 15:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			6/13/2017 13:04					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	183	mg/L	EPA 300	K Baros	6/7/2017 21:54	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/3/2017 8:20					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56182

Sample Report Information

Sample ID:	S17157180E	Client ID:	BV-10	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV-10
Notes:

Batch No: 56182
Sampled: 6/6/2017 2:04 PM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	84	mg/L	EPA 300	K Baros	6/7/2017 22:32	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	300	mg/L	SM 2320 B		6/14/2017	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/14/2017	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	300	mg/L	SM 2320 B		6/14/2017	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.82	mg/L	EPA 300	K Baros	6/7/2017 22:32	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.36	SU	SM 4500-H+B	C Watts	6/7/2017 11:00					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	638	mg/L	SM2540C	C Watts	6/9/2017 15:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			6/13/2017 13:06					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	78	mg/L	EPA 300	K Baros	6/7/2017 22:32	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			6/30/2017 8:49					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56182

Sample Report Information

Sample ID:	S17157180F	Client ID:	BV-15	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV 15
Notes:

Batch No: 56182
Sampled: 6/6/2017 10:40 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	55	mg/L	EPA 300	K Baros	6/7/2017 23:10	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	199	mg/L	SM 2320 B		6/14/2017 12:14	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/14/2017 12:14	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	199	mg/L	SM 2320 B		6/14/2017 12:14	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.8	mg/L	EPA 300	K Baros	6/7/2017 23:10	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.22	SU	SM 4500-H+B	C Watts	6/7/2017 11:00					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	484	mg/L	SM2540C	C Watts	6/9/2017 15:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			6/13/2017 13:08					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	87	mg/L	EPA 300	K Baros	6/7/2017 23:10	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			6/30/2017 8:49					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56182

Sample Report Information

Sample ID:	S17157180G	Client ID:	BV-19	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV-19
Notes:

Batch No: 56182
Sampled: 6/6/2017 1:32 PM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	120	mg/L	EPA 300	K Baros	6/7/2017 23:48	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	336	mg/L	SM 2320 B		6/14/2017 12:26	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/14/2017 12:26	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	336	mg/L	SM 2320 B		6/14/2017 12:26	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.51	mg/L	EPA 300	K Baros	6/7/2017 23:48	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	6.89	SU	SM 4500-H+B	C Watts	6/7/2017 11:00					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	678	mg/L	SM2540C	C Watts	6/9/2017 15:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			6/13/2017 13:25					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	57	mg/L	EPA 300	K Baros	6/7/2017 23:48	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			6/30/2017 8:49					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56182

Sample Report Information

Sample ID:	S17157180H	Client ID:	BV-21	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV 21
Notes:

Batch No: 56182
Sampled: 6/6/2017 10:07 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	40	mg/L	EPA 300	K Baros	6/8/2017 0:26	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	244	mg/L	SM 2320 B		6/14/2017 12:35	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/14/2017 12:35	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	244	mg/L	SM 2320 B		6/14/2017 12:35	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.59	mg/L	EPA 300	K Baros	6/8/2017 0:26	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.1	SU	SM 4500-H+B	C Watts	6/7/2017 11:00					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	452	mg/L	SM2540C	C Watts	6/9/2017 15:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			6/13/2017 13:27					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	49	mg/L	EPA 300	K Baros	6/8/2017 0:26	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			6/30/2017 8:49					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56182

Sample Report Information

Sample ID:	S17157180I	Client ID:	BV-22	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV 22
Notes:

Batch No: 56182
Sampled: 6/6/2017 9:37 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	38	mg/L	EPA 300	K Baros	6/8/2017 1:04	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	242	mg/L	SM 2320 B		6/14/2017 12:50	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/14/2017 12:50	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	242	mg/L	SM 2320 B		6/14/2017 12:50	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.52	mg/L	EPA 300	K Baros	6/8/2017 1:04	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.17	SU	SM 4500-H+B	C Watts	6/7/2017 11:00					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	426	mg/L	SM2540C	C Watts	6/9/2017 15:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			6/13/2017 13:29					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	30	mg/L	EPA 300	K Baros	6/8/2017 1:04	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			6/30/2017 8:50					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56182

QA Summary Report

Parameter	ID	Result	Ref Value	Amt Added	LOQ	Qualifer	Control	Flag	Comments
.Method Blank									
.- Chloride, IC 6/7/2017 15:33	Q171631953	<1mg/L	0		1		1		Blank Acceptable.
Fluoride, IC 6/7/2017 15:33	Q171631953	<0.25mg/L	0		0.25		0.25		Blank Acceptable.
Solids, Total Dissolved 6/8/2017 15:00	Q171601257	<25mg/L	0		10		25		Blank Acceptable.
Solids, Total Dissolved 6/9/2017 15:00	Q171631612	<25mg/L	0		10		25		Blank Acceptable.
Sulfate, IC 6/7/2017 15:33	Q171631953	<1mg/L	0		1		1		Blank Acceptable.
Duplicate									
pH (Standard Units) 6/7/2017 11:00	Q171581241	6.92SU	6.87		2	0.7%	20		Duplicate RPD Acceptable.
Solids, Total Dissolved 6/9/2017 15:00	Q171631613	726mg/L	728		10	0.3%	20		Duplicate RPD Acceptable.
Solids, Total Dissolved 6/8/2017 15:00	Q171601300	3550mg/L	3590		10	1.1%	20		Duplicate RPD Acceptable.
Laboratory Control Standard									
.- Chloride, IC 6/7/2017 16:11	Q171631955	25.7mg/L	25		1	102.8% 2.8%	80 - 120 20		Standard Recovery Acceptable. Standard RPD Acceptable.
Fluoride, IC 6/7/2017 16:11	Q171631955	2.08mg/L	2		0.25	104.0% 3.9%	80 - 120 20		Standard Recovery Acceptable. Standard RPD Acceptable.
pH (Standard Units) 6/7/2017 11:00	Q171581240	7.01SU	7		2	100.1% 0.1%	80 - 120 20		Standard Recovery Acceptable. Standard RPD Acceptable.
Sulfate, IC 6/7/2017 16:11	Q171631955	26.2mg/L	25		1	104.8% 4.7%	80 - 120 20		Standard Recovery Acceptable. Standard RPD Acceptable.
Matrix Spike									
.- Chloride, IC 6/7/2017 18:42	Q17163195A	116mg/L	115.9	25	1	100.4% 0.1%	80 - 120 20		Spike Recovery Acceptable. Spike RPD Acceptable.
Fluoride, IC 6/7/2017 18:42	Q17163195A	2.43mg/L	2.57	2	0.25	93.0% 5.6%	80 - 120 20		Spike Recovery Acceptable. Spike RPD Acceptable.
Sulfate, IC 6/7/2017 18:42	Q17163195A	166mg/L	166.3	25	1	98.8% 0.2%	70 - 130 20		Spike Recovery Acceptable. Spike RPD Acceptable.
Matrix Spike Dup									
.- Chloride, IC 6/7/2017 19:21	Q17163195B	116mg/L	115.9	25	1	100.4% 0.1%	80 - 120 20		Spike Recovery Acceptable. Spike RPD Acceptable.
Fluoride, IC 6/7/2017 19:21	Q17163195B	2.41mg/L	2.57	2	0.25	92.0% 6.4%	80 - 120 20		Spike Recovery Acceptable. Spike RPD Acceptable.
Sulfate, IC 6/7/2017 19:21	Q17163195B	166mg/L	166.3	25	1	98.8% 0.2%	70 - 130 20		Spike Recovery Acceptable. Spike RPD Acceptable.

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56182

Flag and Qualifier Legend

Negative - Result Detected

Caution - Problem Detected

Warning - Null Value

***MDL** = Method Detection Limit*

LOQ = Limit of Quantitation

***S** = surrogate standard out of limit*

***DF** = Dilution Factor*

***j** = Analyte detected between MDL and LOQ*

***H** = sample out of hold time*

MS, MSD, RPD- Failure may occur due to matrix interference, data released per QA plan

Wednesday, July 12, 2017

B Environmental - LDMS QA Report Summary

Note: THANK YOU!

DHL Analytical, Inc.

Date: *15-Jun-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Lab Order: 1706089

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition and Standard Methods.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives except where noted in the following. For Total Metals Analysis, the recoveries of three analytes for the Matrix Spike and Matrix Spike Duplicate (1706089-03 MS/MSD) were below the method control limits. These are flagged accordingly in the QC Summary Report. These analytes were within method control limits in the associated LCS. No further corrective action was taken.

For Total Metals Analysis, the recovery of Magnesium for the Post Digestion Spike (1706089-03 PDS) was below the method control limits. This is flagged accordingly in the QC Summary Report. This analyte was within method control limits in the associated Serial Dilution. No further corrective action was taken.

The Dissolved/Total Metals Analysis, the results of Dissolved Lithium/Molybdenum for eight samples were slightly higher than the results of the Total Lithium/Molybdenum. The results were within acceptable analytical variation limits. No further corrective action was taken.

DHL Analytical, Inc.

Date: *15-Jun-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (56182)
Lab Order: 1706089

Client Sample ID: Dup 1
Lab ID: 1706089-01
Alternate ID: S171571808
Collection Date: 06/06/17
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.00885	0.00500	0.0100	J	mg/L	1	06/12/17 12:45 PM
Dissolved Molybdenum	0.0172	0.00200	0.00500		mg/L	1	06/12/17 12:45 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	06/13/17 12:58 PM
Arsenic	0.00906	0.00200	0.00500		mg/L	1	06/13/17 12:58 PM
Barium	0.0613	0.00300	0.0100		mg/L	1	06/13/17 12:58 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 12:58 PM
Boron	1.17	0.100	0.300		mg/L	10	06/13/17 11:52 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 12:58 PM
Calcium	79.3	1.00	3.00		mg/L	10	06/13/17 11:52 AM
Chromium	0.00612	0.00200	0.00500		mg/L	1	06/13/17 12:58 PM
Cobalt	0.0297	0.00300	0.00500		mg/L	1	06/13/17 12:58 PM
Lead	0.000464	0.000300	0.00100	J	mg/L	1	06/13/17 12:58 PM
Lithium	0.0107	0.00500	0.0100		mg/L	1	06/13/17 12:58 PM
Magnesium	12.0	0.100	0.300		mg/L	1	06/13/17 12:58 PM
Molybdenum	0.0157	0.00200	0.00500		mg/L	1	06/13/17 12:58 PM
Potassium	0.961	0.100	0.300		mg/L	1	06/13/17 12:58 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	06/13/17 12:58 PM
Sodium	89.2	1.00	3.00		mg/L	10	06/13/17 11:52 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	06/13/17 12:58 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/12/17 11:08 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	269	10.0	20.0		mg/L @ pH 4.51	1	06/14/17 11:13 AM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	06/14/17 11:13 AM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	06/14/17 11:13 AM
Alkalinity, Total (As CaCO3)	269	20.0	20.0		mg/L @ pH 4.51	1	06/14/17 11:13 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *15-Jun-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (56182)
Lab Order: 1706089

Client Sample ID: Blank
Lab ID: 1706089-02
Alternate ID: S17157180A
Collection Date: 06/06/17 03:15 PM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	<0.00500	0.00500	0.0100		mg/L	1	06/12/17 12:47 PM
Dissolved Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	06/12/17 12:47 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	06/13/17 12:32 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	06/13/17 12:32 PM
Barium	<0.00300	0.00300	0.0100		mg/L	1	06/13/17 12:32 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 12:32 PM
Boron	<0.0100	0.0100	0.0300		mg/L	1	06/13/17 12:32 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 12:32 PM
Calcium	<0.100	0.100	0.300		mg/L	1	06/13/17 12:32 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	06/13/17 12:32 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	06/13/17 12:32 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 12:32 PM
Lithium	<0.00500	0.00500	0.0100		mg/L	1	06/13/17 12:32 PM
Magnesium	<0.100	0.100	0.300		mg/L	1	06/13/17 12:32 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	06/13/17 12:32 PM
Potassium	<0.100	0.100	0.300		mg/L	1	06/13/17 12:32 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	06/13/17 12:32 PM
Sodium	<0.100	0.100	0.300		mg/L	1	06/13/17 12:32 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	06/13/17 12:32 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/12/17 11:15 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.3	1	06/14/17 11:14 AM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.3	1	06/14/17 11:14 AM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.3	1	06/14/17 11:14 AM
Alkalinity, Total (As CaCO3)	<20.0	20.0	20.0		mg/L @ pH 4.3	1	06/14/17 11:14 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *15-Jun-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (56182)
Lab Order: 1706089

Client Sample ID: MW-4
Lab ID: 1706089-03
Alternate ID: S17157180B
Collection Date: 06/06/17 11:28 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.0177	0.00500	0.0100		mg/L	1	06/12/17 12:39 PM
Dissolved Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	06/12/17 12:39 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	06/13/17 12:48 PM
Arsenic	0.00770	0.00200	0.00500		mg/L	1	06/13/17 12:48 PM
Barium	0.0556	0.00300	0.0100		mg/L	1	06/13/17 12:48 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 12:48 PM
Boron	0.243	0.0100	0.0300		mg/L	1	06/14/17 11:01 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 12:48 PM
Calcium	90.7	1.00	3.00		mg/L	10	06/13/17 11:42 AM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	06/13/17 12:48 PM
Cobalt	0.00688	0.00300	0.00500		mg/L	1	06/13/17 12:48 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 12:48 PM
Lithium	0.0179	0.00500	0.0100		mg/L	1	06/13/17 12:48 PM
Magnesium	17.0	0.100	0.300		mg/L	1	06/13/17 12:48 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	06/13/17 12:48 PM
Potassium	1.39	0.100	0.300		mg/L	1	06/13/17 12:48 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	06/13/17 12:48 PM
Sodium	108	1.00	3.00		mg/L	10	06/13/17 11:42 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	06/13/17 12:48 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/12/17 11:17 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	249	10.0	20.0		mg/L @ pH 4.51	1	06/14/17 11:24 AM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	06/14/17 11:24 AM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	06/14/17 11:24 AM
Alkalinity, Total (As CaCO3)	249	20.0	20.0		mg/L @ pH 4.51	1	06/14/17 11:24 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *15-Jun-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (56182)
Lab Order: 1706089

Client Sample ID: MW-8
Lab ID: 1706089-04
Alternate ID: S17157180C
Collection Date: 06/06/17 08:53 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.0111	0.00500	0.0100		mg/L	1	06/12/17 12:49 PM
Dissolved Molybdenum	0.0177	0.00200	0.00500		mg/L	1	06/12/17 12:49 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	06/13/17 01:02 PM
Arsenic	0.00913	0.00200	0.00500		mg/L	1	06/13/17 01:02 PM
Barium	0.0616	0.00300	0.0100		mg/L	1	06/13/17 01:02 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 01:02 PM
Boron	1.26	0.100	0.300		mg/L	10	06/13/17 11:56 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 01:02 PM
Calcium	78.1	1.00	3.00		mg/L	10	06/13/17 11:56 AM
Chromium	0.00744	0.00200	0.00500		mg/L	1	06/13/17 01:02 PM
Cobalt	0.0308	0.00300	0.00500		mg/L	1	06/13/17 01:02 PM
Lead	0.000626	0.000300	0.00100	J	mg/L	1	06/13/17 01:02 PM
Lithium	0.0107	0.00500	0.0100		mg/L	1	06/13/17 01:02 PM
Magnesium	11.7	0.100	0.300		mg/L	1	06/13/17 01:02 PM
Molybdenum	0.0157	0.00200	0.00500		mg/L	1	06/13/17 01:02 PM
Potassium	0.951	0.100	0.300		mg/L	1	06/13/17 01:02 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	06/13/17 01:02 PM
Sodium	88.5	1.00	3.00		mg/L	10	06/13/17 11:56 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	06/13/17 01:02 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/12/17 11:29 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	271	10.0	20.0		mg/L @ pH 4.52	1	06/14/17 11:42 AM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	06/14/17 11:42 AM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	06/14/17 11:42 AM
Alkalinity, Total (As CaCO3)	271	20.0	20.0		mg/L @ pH 4.52	1	06/14/17 11:42 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *15-Jun-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (56182)
Lab Order: 1706089

Client Sample ID: BV-1
Lab ID: 1706089-05
Alternate ID: S17157180D
Collection Date: 06/06/17 02:34 PM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.0156	0.00500	0.0100		mg/L	1	06/12/17 12:51 PM
Dissolved Molybdenum	0.00491	0.00200	0.00500	J	mg/L	1	06/12/17 12:51 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	06/13/17 01:04 PM
Arsenic	0.0105	0.00200	0.00500		mg/L	1	06/13/17 01:04 PM
Barium	0.0472	0.00300	0.0100		mg/L	1	06/13/17 01:04 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 01:04 PM
Boron	1.30	0.100	0.300		mg/L	10	06/13/17 11:58 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 01:04 PM
Calcium	69.1	1.00	3.00		mg/L	10	06/13/17 11:58 AM
Chromium	0.00899	0.00200	0.00500		mg/L	1	06/13/17 01:04 PM
Cobalt	0.386	0.00300	0.00500		mg/L	1	06/13/17 01:04 PM
Lead	0.00495	0.000300	0.00100		mg/L	1	06/13/17 01:04 PM
Lithium	0.0153	0.00500	0.0100		mg/L	1	06/13/17 01:04 PM
Magnesium	10.2	0.100	0.300		mg/L	1	06/13/17 01:04 PM
Molybdenum	0.00423	0.00200	0.00500	J	mg/L	1	06/13/17 01:04 PM
Potassium	0.580	0.100	0.300		mg/L	1	06/13/17 01:04 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	06/13/17 01:04 PM
Sodium	261	2.00	6.00		mg/L	20	06/13/17 12:34 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	06/13/17 01:04 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/12/17 11:31 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	403	10.0	20.0		mg/L @ pH 4.53	1	06/14/17 11:56 AM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	06/14/17 11:56 AM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	06/14/17 11:56 AM
Alkalinity, Total (As CaCO3)	403	20.0	20.0		mg/L @ pH 4.53	1	06/14/17 11:56 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *15-Jun-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (56182)
Lab Order: 1706089

Client Sample ID: BV-10
Lab ID: 1706089-06
Alternate ID: S17157180E
Collection Date: 06/06/17 02:04 PM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.0119	0.00500	0.0100		mg/L	1	06/12/17 12:53 PM
Dissolved Molybdenum	0.00895	0.00200	0.00500		mg/L	1	06/12/17 12:53 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	06/13/17 01:06 PM
Arsenic	0.0129	0.00200	0.00500		mg/L	1	06/13/17 01:06 PM
Barium	0.0468	0.00300	0.0100		mg/L	1	06/13/17 01:06 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 01:06 PM
Boron	1.11	0.100	0.300		mg/L	10	06/13/17 12:00 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 01:06 PM
Calcium	39.5	1.00	3.00		mg/L	10	06/13/17 12:00 PM
Chromium	0.00406	0.00200	0.00500	J	mg/L	1	06/13/17 01:06 PM
Cobalt	0.210	0.00300	0.00500		mg/L	1	06/13/17 01:06 PM
Lead	0.00519	0.000300	0.00100		mg/L	1	06/13/17 01:06 PM
Lithium	0.0107	0.00500	0.0100		mg/L	1	06/13/17 01:06 PM
Magnesium	6.60	0.100	0.300		mg/L	1	06/13/17 01:06 PM
Molybdenum	0.00788	0.00200	0.00500		mg/L	1	06/13/17 01:06 PM
Potassium	0.713	0.100	0.300		mg/L	1	06/13/17 01:06 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	06/13/17 01:06 PM
Sodium	169	1.00	3.00		mg/L	10	06/13/17 12:00 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	06/13/17 01:06 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/12/17 11:33 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	300	10.0	20.0		mg/L @ pH 4.51	1	06/14/17 12:07 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	06/14/17 12:07 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	06/14/17 12:07 PM
Alkalinity, Total (As CaCO3)	300	20.0	20.0		mg/L @ pH 4.51	1	06/14/17 12:07 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level
B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative
DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern
J	Analyte detected between MDL and RL
MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *15-Jun-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (56182)
Lab Order: 1706089

Client Sample ID: BV-15
Lab ID: 1706089-07
Alternate ID: S17157180F
Collection Date: 06/06/17 10:40 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.00660	0.00500	0.0100	J	mg/L	1	06/12/17 12:55 PM
Dissolved Molybdenum	0.0207	0.00200	0.00500		mg/L	1	06/12/17 12:55 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	06/13/17 01:08 PM
Arsenic	0.00884	0.00200	0.00500		mg/L	1	06/13/17 01:08 PM
Barium	0.0497	0.00300	0.0100		mg/L	1	06/13/17 01:08 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 01:08 PM
Boron	1.24	0.100	0.300		mg/L	10	06/13/17 12:02 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 01:08 PM
Calcium	61.5	1.00	3.00		mg/L	10	06/13/17 12:02 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	06/13/17 01:08 PM
Cobalt	0.0133	0.00300	0.00500		mg/L	1	06/13/17 01:08 PM
Lead	0.00469	0.000300	0.00100		mg/L	1	06/13/17 01:08 PM
Lithium	0.00665	0.00500	0.0100	J	mg/L	1	06/13/17 01:08 PM
Magnesium	8.09	0.100	0.300		mg/L	1	06/13/17 01:08 PM
Molybdenum	0.0180	0.00200	0.00500		mg/L	1	06/13/17 01:08 PM
Potassium	1.07	0.100	0.300		mg/L	1	06/13/17 01:08 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	06/13/17 01:08 PM
Sodium	74.4	1.00	3.00		mg/L	10	06/13/17 12:02 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	06/13/17 01:08 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/12/17 11:36 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	199	10.0	20.0		mg/L @ pH 4.52	1	06/14/17 12:14 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	06/14/17 12:14 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	06/14/17 12:14 PM
Alkalinity, Total (As CaCO3)	199	20.0	20.0		mg/L @ pH 4.52	1	06/14/17 12:14 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level
C	Sample Result or QC discussed in the Case Narrative
E	TPH pattern not Gas or Diesel Range Pattern
MDL	Method Detection Limit
RL	Reporting Limit
B	Analyte detected in the associated Method Blank
DF	Dilution Factor
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *15-Jun-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (56182)
Lab Order: 1706089

Client Sample ID: BV-19
Lab ID: 1706089-08
Alternate ID: S17157180G
Collection Date: 06/06/17 01:32 PM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.0146	0.00500	0.0100		mg/L	1	06/12/17 12:57 PM
Dissolved Molybdenum	0.00528	0.00200	0.00500		mg/L	1	06/12/17 12:57 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	06/13/17 01:25 PM
Arsenic	0.00784	0.00200	0.00500		mg/L	1	06/13/17 01:25 PM
Barium	0.0853	0.00300	0.0100		mg/L	1	06/13/17 01:25 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 01:25 PM
Boron	0.734	0.100	0.300		mg/L	10	06/13/17 12:22 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 01:25 PM
Calcium	97.9	1.00	3.00		mg/L	10	06/13/17 12:22 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	06/13/17 01:25 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	06/13/17 01:25 PM
Lead	0.000308	0.000300	0.00100	J	mg/L	1	06/13/17 01:25 PM
Lithium	0.0129	0.00500	0.0100		mg/L	1	06/13/17 01:25 PM
Magnesium	21.8	0.100	0.300		mg/L	1	06/13/17 01:25 PM
Molybdenum	0.00470	0.00200	0.00500	J	mg/L	1	06/13/17 01:25 PM
Potassium	0.636	0.100	0.300		mg/L	1	06/13/17 01:25 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	06/13/17 01:25 PM
Sodium	84.2	1.00	3.00		mg/L	10	06/13/17 12:22 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	06/13/17 01:25 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/12/17 11:38 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	336	10.0	20.0		mg/L @ pH 4.52	1	06/14/17 12:26 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	06/14/17 12:26 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	06/14/17 12:26 PM
Alkalinity, Total (As CaCO3)	336	20.0	20.0		mg/L @ pH 4.52	1	06/14/17 12:26 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level
C	Sample Result or QC discussed in the Case Narrative
E	TPH pattern not Gas or Diesel Range Pattern
MDL	Method Detection Limit
RL	Reporting Limit
B	Analyte detected in the associated Method Blank
DF	Dilution Factor
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *15-Jun-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (56182)
Lab Order: 1706089

Client Sample ID: BV-21
Lab ID: 1706089-09
Alternate ID: S17157180H
Collection Date: 06/06/17 10:07 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.00528	0.00500	0.0100	J	mg/L	1	06/12/17 12:59 PM
Dissolved Molybdenum	0.00276	0.00200	0.00500	J	mg/L	1	06/12/17 12:59 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	06/13/17 01:27 PM
Arsenic	0.118	0.00200	0.00500		mg/L	1	06/13/17 01:27 PM
Barium	0.0954	0.00300	0.0100		mg/L	1	06/13/17 01:27 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 01:27 PM
Boron	0.657	0.100	0.300		mg/L	10	06/13/17 12:24 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 01:27 PM
Calcium	69.0	1.00	3.00		mg/L	10	06/13/17 12:24 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	06/13/17 01:27 PM
Cobalt	0.00806	0.00300	0.00500		mg/L	1	06/13/17 01:27 PM
Lead	0.000644	0.000300	0.00100	J	mg/L	1	06/13/17 01:27 PM
Lithium	<0.00500	0.00500	0.0100		mg/L	1	06/13/17 01:27 PM
Magnesium	7.67	0.100	0.300		mg/L	1	06/13/17 01:27 PM
Molybdenum	0.00244	0.00200	0.00500	J	mg/L	1	06/13/17 01:27 PM
Potassium	0.792	0.100	0.300		mg/L	1	06/13/17 01:27 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	06/13/17 01:27 PM
Sodium	60.8	1.00	3.00		mg/L	10	06/13/17 12:24 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	06/13/17 01:27 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/12/17 11:40 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	244	10.0	20.0		mg/L @ pH 4.51	1	06/14/17 12:35 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	06/14/17 12:35 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	06/14/17 12:35 PM
Alkalinity, Total (As CaCO3)	244	20.0	20.0		mg/L @ pH 4.51	1	06/14/17 12:35 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *15-Jun-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (56182)
Lab Order: 1706089

Client Sample ID: BV-22
Lab ID: 1706089-10
Alternate ID: S17157180I
Collection Date: 06/06/17 09:37 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.00699	0.00500	0.0100	J	mg/L	1	06/12/17 01:15 PM
Dissolved Molybdenum	0.00882	0.00200	0.00500		mg/L	1	06/12/17 01:15 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	06/13/17 01:29 PM
Arsenic	0.00661	0.00200	0.00500		mg/L	1	06/13/17 01:29 PM
Barium	0.0453	0.00300	0.0100		mg/L	1	06/13/17 01:29 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 01:29 PM
Boron	0.606	0.100	0.300		mg/L	10	06/13/17 12:26 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 01:29 PM
Calcium	65.9	1.00	3.00		mg/L	10	06/13/17 12:26 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	06/13/17 01:29 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	06/13/17 01:29 PM
Lead	0.000887	0.000300	0.00100	J	mg/L	1	06/13/17 01:29 PM
Lithium	0.00603	0.00500	0.0100	J	mg/L	1	06/13/17 01:29 PM
Magnesium	9.12	0.100	0.300		mg/L	1	06/13/17 01:29 PM
Molybdenum	0.00793	0.00200	0.00500		mg/L	1	06/13/17 01:29 PM
Potassium	0.882	0.100	0.300		mg/L	1	06/13/17 01:29 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	06/13/17 01:29 PM
Sodium	59.1	1.00	3.00		mg/L	10	06/13/17 12:26 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	06/13/17 01:29 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/12/17 11:42 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	242	10.0	20.0		mg/L @ pH 4.52	1	06/14/17 12:50 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	06/14/17 12:50 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	06/14/17 12:50 PM
Alkalinity, Total (As CaCO3)	242	20.0	20.0		mg/L @ pH 4.52	1	06/14/17 12:50 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc. **Date:** *15-Jun-17*

CLIENT: B-Environmental
Work Order: 1706089
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_170612A

The QC data in batch 80834 applies to the following samples: 1706089-01A, 1706089-02A, 1706089-03A, 1706089-04A, 1706089-05A, 1706089-06A, 1706089-07A, 1706089-08A, 1706089-09A, 1706089-10A

Sample ID	MB-80834	Batch ID:	80834	TestNo:	SW7470A	Units:	mg/L
SampType:	MBLK	Run ID:	CETAC2_HG_170612A	Analysis Date:	6/12/2017 10:41:33 AM	Prep Date:	6/9/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.0000800	0.000200								

Sample ID	LCS-80834	Batch ID:	80834	TestNo:	SW7470A	Units:	mg/L
SampType:	LCS	Run ID:	CETAC2_HG_170612A	Analysis Date:	6/12/2017 10:43:49 AM	Prep Date:	6/9/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00211	0.000200	0.00200	0	106	85	115			

Sample ID	LCSD-80834	Batch ID:	80834	TestNo:	SW7470A	Units:	mg/L
SampType:	LCSD	Run ID:	CETAC2_HG_170612A	Analysis Date:	6/12/2017 10:46:05 AM	Prep Date:	6/9/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00211	0.000200	0.00200	0	106	85	115	0	15	

Sample ID	1706089-03A SD	Batch ID:	80834	TestNo:	SW7470A	Units:	mg/L
SampType:	SD	Run ID:	CETAC2_HG_170612A	Analysis Date:	6/12/2017 11:20:08 AM	Prep Date:	6/9/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.000400	0.00100	0	0				0	10	

Sample ID	1706089-03A PDS	Batch ID:	80834	TestNo:	SW7470A	Units:	mg/L
SampType:	PDS	Run ID:	CETAC2_HG_170612A	Analysis Date:	6/12/2017 11:22:25 AM	Prep Date:	6/9/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00234	0.000200	0.00250	0	93.6	85	115			

Sample ID	1706089-03A MS	Batch ID:	80834	TestNo:	SW7470A	Units:	mg/L
SampType:	MS	Run ID:	CETAC2_HG_170612A	Analysis Date:	6/12/2017 11:24:41 AM	Prep Date:	6/9/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00198	0.000200	0.00200	0	99.0	80	120			

Sample ID	1706089-03A MSD	Batch ID:	80834	TestNo:	SW7470A	Units:	mg/L
SampType:	MSD	Run ID:	CETAC2_HG_170612A	Analysis Date:	6/12/2017 11:26:57 AM	Prep Date:	6/9/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00204	0.000200	0.00200	0	102	80	120	2.99	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706089
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170612A

The QC data in batch 80831 applies to the following samples: 1706089-01B, 1706089-02B, 1706089-03B, 1706089-04B, 1706089-05B, 1706089-06B, 1706089-07B, 1706089-08B, 1706089-09B, 1706089-10B

Sample ID **MB-80831** Batch ID: **80831** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS4_170612A** Analysis Date: **6/12/2017 12:31:00 PM** Prep Date: **6/9/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.00500	0.0100								
Molybdenum	<0.00200	0.00500								

Sample ID **LCS-80831** Batch ID: **80831** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS4_170612A** Analysis Date: **6/12/2017 12:33:00 PM** Prep Date: **6/9/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.191	0.0100	0.200	0	95.6	80	120			
Molybdenum	0.204	0.00500	0.200	0	102	80	120			

Sample ID **LCSD-80831** Batch ID: **80831** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS4_170612A** Analysis Date: **6/12/2017 12:35:00 PM** Prep Date: **6/9/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.193	0.0100	0.200	0	96.4	80	120	0.898	15	
Molybdenum	0.200	0.00500	0.200	0	100	80	120	2.06	15	

Sample ID **1706089-03B SD** Batch ID: **80831** TestNo: **SW6020A** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS4_170612A** Analysis Date: **6/12/2017 12:41:00 PM** Prep Date: **6/9/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.0250	0.0500	0	0.0177				0	10	
Molybdenum	<0.0100	0.0250	0	0				0	10	

Sample ID **1706089-03B PDS** Batch ID: **80831** TestNo: **SW6020A** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS4_170612A** Analysis Date: **6/12/2017 1:01:00 PM** Prep Date: **6/9/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.206	0.0100	0.200	0.0177	94.0	80	120			
Molybdenum	0.205	0.00500	0.200	0	103	80	120			

Sample ID **1706089-03B MS** Batch ID: **80831** TestNo: **SW6020A** Units: **mg/L**
SampType: **MS** Run ID: **ICP-MS4_170612A** Analysis Date: **6/12/2017 1:03:00 PM** Prep Date: **6/9/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Lithium	0.212	0.0100	0.200	0.0177	96.9	80	120			
Dissolved Molybdenum	0.208	0.00500	0.200	0	104	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706089
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170612A

Sample ID	1706089-03B MSD	Batch ID:	80831	TestNo:	SW6020A	Units:	mg/L
SampType:	MSD	Run ID:	ICP-MS4_170612A	Analysis Date:	6/12/2017 1:05:00 PM	Prep Date:	6/9/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Lithium	0.202	0.0100	0.200	0.0177	92.4	80	120	4.38	15	
Dissolved Molybdenum	0.207	0.00500	0.200	0	104	80	120	0.379	15	

Qualifiers:

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL
DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706089
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170613A

The QC data in batch 80842 applies to the following samples: 1706089-01A, 1706089-02A, 1706089-03A, 1706089-04A, 1706089-05A, 1706089-06A, 1706089-07A, 1706089-08A, 1706089-09A, 1706089-10A

Sample ID **MB-80842** Batch ID: **80842** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS4_170613A** Analysis Date: **6/13/2017 11:34:00 AM** Prep Date: **6/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.000800	0.00250								
Arsenic	<0.00200	0.00500								
Barium	<0.00300	0.0100								
Beryllium	<0.000300	0.00100								
Boron	<0.0100	0.0300								
Cadmium	<0.000300	0.00100								
Calcium	<0.100	0.300								
Chromium	<0.00200	0.00500								
Cobalt	<0.00300	0.00500								
Lead	<0.000300	0.00100								
Lithium	<0.00500	0.0100								
Magnesium	<0.100	0.300								
Molybdenum	<0.00200	0.00500								
Potassium	<0.100	0.300								
Selenium	<0.00200	0.00500								
Sodium	<0.100	0.300								
Thallium	<0.000500	0.00150								

Sample ID **LCS-80842** Batch ID: **80842** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS4_170613A** Analysis Date: **6/13/2017 11:36:00 AM** Prep Date: **6/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.194	0.00250	0.200	0	96.9	80	120			
Arsenic	0.199	0.00500	0.200	0	99.4	80	120			
Barium	0.193	0.0100	0.200	0	96.6	80	120			
Beryllium	0.206	0.00100	0.200	0	103	80	120			
Boron	0.197	0.0300	0.200	0	98.3	80	120			
Cadmium	0.200	0.00100	0.200	0	100	80	120			
Calcium	4.85	0.300	5.00	0	96.9	80	120			
Chromium	0.204	0.00500	0.200	0	102	80	120			
Cobalt	0.203	0.00500	0.200	0	101	80	120			
Lead	0.195	0.00100	0.200	0	97.3	80	120			
Lithium	0.202	0.0100	0.200	0	101	80	120			
Magnesium	5.10	0.300	5.00	0	102	80	120			
Molybdenum	0.192	0.00500	0.200	0	96.0	80	120			
Potassium	5.04	0.300	5.00	0	101	80	120			
Selenium	0.199	0.00500	0.200	0	99.4	80	120			
Sodium	5.09	0.300	5.00	0	102	80	120			
Thallium	0.199	0.00150	0.200	0	99.4	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL
DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706089
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170613A

Sample ID	LCSD-80842	Batch ID:	80842	TestNo:	SW6020A	Units:	mg/L
SampType:	LCSD	Run ID:	ICP-MS4_170613A	Analysis Date:	6/13/2017 11:38:00 AM	Prep Date:	6/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.197	0.00250	0.200	0	98.7	80	120	1.80	15	
Arsenic	0.199	0.00500	0.200	0	99.7	80	120	0.278	15	
Barium	0.197	0.0100	0.200	0	98.3	80	120	1.70	15	
Beryllium	0.206	0.00100	0.200	0	103	80	120	0.222	15	
Boron	0.199	0.0300	0.200	0	99.4	80	120	1.16	15	
Cadmium	0.202	0.00100	0.200	0	101	80	120	0.595	15	
Calcium	4.84	0.300	5.00	0	96.8	80	120	0.190	15	
Chromium	0.202	0.00500	0.200	0	101	80	120	0.638	15	
Cobalt	0.203	0.00500	0.200	0	101	80	120	0.196	15	
Lead	0.196	0.00100	0.200	0	98.1	80	120	0.773	15	
Lithium	0.199	0.0100	0.200	0	99.7	80	120	1.54	15	
Magnesium	5.07	0.300	5.00	0	101	80	120	0.619	15	
Molybdenum	0.194	0.00500	0.200	0	96.8	80	120	0.866	15	
Potassium	5.00	0.300	5.00	0	100	80	120	0.752	15	
Selenium	0.195	0.00500	0.200	0	97.7	80	120	1.73	15	
Sodium	5.02	0.300	5.00	0	100	80	120	1.51	15	
Thallium	0.201	0.00150	0.200	0	101	80	120	1.11	15	

Sample ID	1706089-03A SD	Batch ID:	80842	TestNo:	SW6020A	Units:	mg/L
SampType:	SD	Run ID:	ICP-MS4_170613A	Analysis Date:	6/13/2017 11:44:00 AM	Prep Date:	6/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	90.7	15.0	0	90.7				0.059	10	
Sodium	109	15.0	0	108				1.05	10	

Sample ID	1706089-03A PDS	Batch ID:	80842	TestNo:	SW6020A	Units:	mg/L
SampType:	PDS	Run ID:	ICP-MS4_170613A	Analysis Date:	6/13/2017 12:04:00 PM	Prep Date:	6/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	135	3.00	50.0	90.7	88.4	80	120			
Sodium	155	3.00	50.0	108	93.4	80	120			

Sample ID	1706089-03A MS	Batch ID:	80842	TestNo:	SW6020A	Units:	mg/L
SampType:	MS	Run ID:	ICP-MS4_170613A	Analysis Date:	6/13/2017 12:06:00 PM	Prep Date:	6/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	92.1	3.00	5.00	90.7	28.2	80	120			S
Sodium	109	3.00	5.00	108	19.4	80	120			S

Qualifiers:

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL
DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706089
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170613A

Sample ID 1706089-03A MSD	Batch ID: 80842	TestNo: SW6020A	Units: mg/L
SampType: MSD	Run ID: ICP-MS4_170613A	Analysis Date: 6/13/2017 12:08:00 PM	Prep Date: 6/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	92.1	3.00	5.00	90.7	28.3	80	120	0.001	15	S
Sodium	111	3.00	5.00	108	58.6	80	120	1.78	15	S

Sample ID 1706089-03A SD	Batch ID: 80842	TestNo: SW6020A	Units: mg/L
SampType: SD	Run ID: ICP-MS4_170613A	Analysis Date: 6/13/2017 12:50:00 PM	Prep Date: 6/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.00400	0.0125	0	0				0	10	
Arsenic	<0.0100	0.0250	0	0.00770				0	10	
Barium	0.0572	0.0500	0	0.0556				2.87	10	
Beryllium	<0.00150	0.00500	0	0				0	10	
Cadmium	<0.00150	0.00500	0	0				0	10	
Chromium	<0.0100	0.0250	0	0				0	10	
Cobalt	<0.0150	0.0250	0	0.00688				0	10	
Lead	<0.00150	0.00500	0	0				0	10	
Lithium	<0.0250	0.0500	0	0.0178				0	10	
Magnesium	17.8	1.50	0	17.0				4.26	10	
Molybdenum	<0.0100	0.0250	0	0				0	10	
Potassium	1.45	1.50	0	1.39				4.33	10	
Selenium	<0.0100	0.0250	0	0				0	10	
Thallium	<0.00250	0.00750	0	0				0	10	

Sample ID 1706089-03A PDS	Batch ID: 80842	TestNo: SW6020A	Units: mg/L
SampType: PDS	Run ID: ICP-MS4_170613A	Analysis Date: 6/13/2017 1:10:00 PM	Prep Date: 6/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.189	0.00250	0.200	0	94.7	80	120			
Arsenic	0.205	0.00500	0.200	0.00770	98.4	80	120			
Barium	0.243	0.0100	0.200	0.0556	93.8	80	120			
Beryllium	0.184	0.00100	0.200	0	92.1	80	120			
Cadmium	0.190	0.00100	0.200	0	95.0	80	120			
Chromium	0.197	0.00500	0.200	0	98.4	80	120			
Cobalt	0.200	0.00500	0.200	0.00688	96.5	80	120			
Lead	0.190	0.00100	0.200	0	95.0	80	120			
Lithium	0.196	0.0100	0.200	0.0179	88.8	80	120			
Magnesium	20.2	0.300	5.00	17.0	64.1	80	120			S
Molybdenum	0.185	0.00500	0.200	0	92.7	80	120			
Potassium	5.91	0.300	5.00	1.39	90.3	80	120			
Selenium	0.191	0.00500	0.200	0	95.7	80	120			
Thallium	0.196	0.00150	0.200	0	98.1	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706089
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170613A

Sample ID	1706089-03A MS	Batch ID:	80842	TestNo:	SW6020A	Units:	mg/L
SampType:	MS	Run ID:	ICP-MS4_170613A	Analysis Date:	6/13/2017 1:12:00 PM	Prep Date:	6/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.189	0.00250	0.200	0	94.4	80	120			
Arsenic	0.206	0.00500	0.200	0.00770	98.9	80	120			
Barium	0.243	0.0100	0.200	0.0556	93.7	80	120			
Beryllium	0.185	0.00100	0.200	0	92.7	80	120			
Cadmium	0.187	0.00100	0.200	0	93.3	80	120			
Chromium	0.191	0.00500	0.200	0	95.3	80	120			
Cobalt	0.197	0.00500	0.200	0.00688	95.2	80	120			
Lead	0.189	0.00100	0.200	0	94.7	80	120			
Lithium	0.196	0.0100	0.200	0.0179	89.1	80	120			
Magnesium	20.9	0.300	5.00	17.0	78.4	80	120			S
Molybdenum	0.187	0.00500	0.200	0	93.6	80	120			
Potassium	6.12	0.300	5.00	1.39	94.6	80	120			
Selenium	0.194	0.00500	0.200	0	97.2	80	120			
Thallium	0.196	0.00150	0.200	0	97.9	80	120			

Sample ID	1706089-03A MSD	Batch ID:	80842	TestNo:	SW6020A	Units:	mg/L
SampType:	MSD	Run ID:	ICP-MS4_170613A	Analysis Date:	6/13/2017 1:14:00 PM	Prep Date:	6/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.185	0.00250	0.200	0	92.5	80	120	1.96	15	
Arsenic	0.201	0.00500	0.200	0.00770	96.6	80	120	2.24	15	
Barium	0.239	0.0100	0.200	0.0556	91.6	80	120	1.79	15	
Beryllium	0.183	0.00100	0.200	0	91.7	80	120	1.10	15	
Cadmium	0.183	0.00100	0.200	0	91.7	80	120	1.71	15	
Chromium	0.188	0.00500	0.200	0	94.1	80	120	1.28	15	
Cobalt	0.194	0.00500	0.200	0.00688	93.7	80	120	1.49	15	
Lead	0.186	0.00100	0.200	0	93.1	80	120	1.73	15	
Lithium	0.191	0.0100	0.200	0.0179	86.3	80	120	2.84	15	
Magnesium	20.7	0.300	5.00	17.0	74.1	80	120	1.05	15	S
Molybdenum	0.185	0.00500	0.200	0	92.4	80	120	1.27	15	
Potassium	6.04	0.300	5.00	1.39	93.0	80	120	1.33	15	
Selenium	0.189	0.00500	0.200	0	94.4	80	120	2.88	15	
Thallium	0.193	0.00150	0.200	0	96.7	80	120	1.17	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706089
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170614A

The QC data in batch 80842 applies to the following samples: 1706089-01A, 1706089-02A, 1706089-03A, 1706089-04A, 1706089-05A, 1706089-06A, 1706089-07A, 1706089-08A, 1706089-09A, 1706089-10A

Sample ID	1706089-03A SD	Batch ID:	80842	TestNo:	SW6020A	Units:	mg/L
SampType:	SD	Run ID:	ICP-MS4_170614A	Analysis Date:	6/14/2017 11:03:00 AM	Prep Date:	6/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.270	0.150	0	0.243				10.4	10	

Sample ID	1706089-03A PDS	Batch ID:	80842	TestNo:	SW6020A	Units:	mg/L
SampType:	PDS	Run ID:	ICP-MS4_170614A	Analysis Date:	6/14/2017 11:07:00 AM	Prep Date:	6/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.416	0.0300	0.200	0.243	86.5	80	120			

Sample ID	1706089-03A MS	Batch ID:	80842	TestNo:	SW6020A	Units:	mg/L
SampType:	MS	Run ID:	ICP-MS4_170614A	Analysis Date:	6/14/2017 11:09:00 AM	Prep Date:	6/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.414	0.0300	0.200	0.243	85.1	80	120			

Sample ID	1706089-03A MSD	Batch ID:	80842	TestNo:	SW6020A	Units:	mg/L
SampType:	MSD	Run ID:	ICP-MS4_170614A	Analysis Date:	6/14/2017 11:11:00 AM	Prep Date:	6/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.442	0.0300	0.200	0.243	99.2	80	120	6.64	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706089
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_170614A

The QC data in batch 80902 applies to the following samples: 1706089-01C, 1706089-02C, 1706089-03C, 1706089-04C, 1706089-05C, 1706089-06C, 1706089-07C, 1706089-08C, 1706089-09C, 1706089-10C

Sample ID **MB-80902** Batch ID: **80902** TestNo: **M2320 B** Units: **mg/L @ pH 4.22**
SampType: **MBLK** Run ID: **TITRATOR_170614A** Analysis Date: **6/14/2017 10:31:00 AM** Prep Date: **6/14/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0								
Alkalinity, Total (As CaCO3)	<20.0	20.0								

Sample ID **LCS-80902** Batch ID: **80902** TestNo: **M2320 B** Units: **mg/L @ pH 4.2**
SampType: **LCS** Run ID: **TITRATOR_170614A** Analysis Date: **6/14/2017 10:35:00 AM** Prep Date: **6/14/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	51.0	20.0	50.00	0	102	74	129			

Sample ID **1706089-03C-DUP** Batch ID: **80902** TestNo: **M2320 B** Units: **mg/L @ pH 4.52**
SampType: **DUP** Run ID: **TITRATOR_170614A** Analysis Date: **6/14/2017 11:32:00 AM** Prep Date: **6/14/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	251	20.0	0	249.3				0.680	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	251	20.0	0	249.3				0.680	20	

Sample ID **1706105-03C-DUP** Batch ID: **80902** TestNo: **M2320 B** Units: **mg/L @ pH 4.52**
SampType: **DUP** Run ID: **TITRATOR_170614A** Analysis Date: **6/14/2017 1:25:00 PM** Prep Date: **6/14/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	251	20.0	0	253.0				0.953	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	251	20.0	0	253.0				0.953	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

2609 North River Road, Port Allen, Louisiana 70767
(800) 401-4277 -- FAX (225) 381-2996

ARS INTERNATIONAL

ARS International, LLC

Laboratory Analysis Report

ARS1-17-01680

Prepared for:

B-Environmental

Kevin Baros
1606 East Brazos Street
Suite D
Victoria, TX 77901

dbenviro@suddenlinkmail.com; cbenviro@suddenlinkmail.com
swbenviro@suddenlinkmail.com

Phone: 361-572-8224
Fax: 361-572-4115

Project Manager Review

Management Review

Notes: ARS International, LLC assumes no liability for the use or the interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

Contact Person: Questions regarding this analytical report should be addressed to:

Project Manager

ProjectManagers@amrad.com

Phone: 225.381.2991
Fax: 225.381.2996

ANAB ACCREDITED DOD ELAP

LELAP Cert# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01680
Client Sample ID: S171571808 (BATCH 56182)
Sample Collection Date: 06/06/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01680-001
Date Received: 06/12/17
Report Date: 07/11/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.138	0.110	0.149	0.056	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/03/17 8:20	CTRAMEL	98%
Ra-228	0.463	0.659	1.111	0.514	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/26/17 12:49	CTRAMEL	90%

Project Manager Review

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01680
Client Sample ID: S17157180A (BATCH 56182)
Sample Collection Date: 06/06/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01680-002
Date Received: 06/12/17
Report Date: 07/11/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.406	0.177	0.152	0.056	NP		pCi/L	ARS-010/EPA 903.0/904.0	07/03/17 8:20	CTRAMEL	93%
Ra-228	0.754	0.883	1.460	0.675	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/26/17 12:49	CTRAMEL	68%

Project Manager Review

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01680
Client Sample ID: S17157180B (BATCH 56182)
Sample Collection Date: 06/06/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01680-003
Date Received: 06/12/17
Report Date: 07/11/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.112	0.143	0.236	0.097	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/03/17 8:20	CTRAMEL	80%
Ra-228	0.062	1.003	1.796	0.838	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/26/17 12:49	CTRAMEL	60%

Project Manager Review

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01680
Client Sample ID: S17157180C (BATCH 56182)
Sample Collection Date: 06/06/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01680-004
Date Received: 06/12/17
Report Date: 07/11/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.132	0.128	0.195	0.078	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/03/17 8:20	CTRAMEL	95%
Ra-228	-0.154	0.709	1.303	0.606	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/26/17 12:49	CTRAMEL	86%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01680
Client Sample ID: S17157180D (BATCH 56182)
Sample Collection Date: 06/06/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01680-005
Date Received: 06/12/17
Report Date: 07/11/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.117	0.124	0.193	0.076	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/03/17 8:20	CTRAMEL	94%
Ra-228	0.574	0.775	1.299	0.604	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/26/17 12:49	CTRAMEL	85%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01677
Client Sample ID: S17157180E (BATCH 56182)
Sample Collection Date: 06/06/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01677-001
Date Received: 06/12/17
Report Date: 07/11/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.281	0.151	0.178	0.072	NP		pCi/L	ARS-010/EPA 903.0/904.0	06/30/17 8:49	CTRAMEL	103%
Ra-228	0.631	0.750	1.244	0.582	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/23/17 12:57	CTRAMEL	104%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01677
Client Sample ID: S17157180F (BATCH 56182)
Sample Collection Date: 06/06/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01677-002
Date Received: 06/12/17
Report Date: 07/11/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.624	0.230	0.203	0.082	NP		pCi/L	ARS-010/EPA 903.0/904.0	06/30/17 8:49	CTRAMEL	102%
Ra-228	0.561	0.717	1.197	0.556	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/23/17 12:57	CTRAMEL	95%

Project Manager Review

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01677
Client Sample ID: S17157180G (BATCH 56182)
Sample Collection Date: 06/06/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01677-003
Date Received: 06/12/17
Report Date: 07/11/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.523	0.204	0.183	0.073	NP		pCi/L	ARS-010/EPA 903.0/904.0	06/30/17 8:49	CTRAMEL	106%
Ra-228	0.410	0.706	1.204	0.561	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/23/17 12:57	CTRAMEL	109%

Project Manager Review

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01677
Client Sample ID: S17157180H (BATCH 56182)
Sample Collection Date: 06/06/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01677-004
Date Received: 06/12/17
Report Date: 07/11/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.281	0.150	0.161	0.061	NP		pCi/L	ARS-010/EPA 903.0/904.0	06/30/17 8:49	CTRAMEL	109%
Ra-228	0.390	0.654	1.114	0.516	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/23/17 12:57	CTRAMEL	101%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01677
Client Sample ID: S171571801 (BATCH 56182)
Sample Collection Date: 06/06/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01677-005
Date Received: 06/12/17
Report Date: 07/11/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.122	0.103	0.143	0.054	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/30/17 8:50	CTRAMEL	108%
Ra-228	0.747	0.872	1.445	0.681	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/23/17 12:57	CTRAMEL	98%

Project Manager Review

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

INTERNATIONAL

QC Results Report

Sample Delivery Group: ARS1-17-01680

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-01240	LCS	RA-226	27.226	4.387	0.100	27.564	N/A	pCi/L	ARS-010/EPA 903	7/3/17 10:19	CT	99	75%-125%
ARS1-B17-01240	LCS	RA-228	40.447	6.704	1.054	39.784	N/A	pCi/L	ARS-010/EPA 904	6/26/17 14:48	CT	102	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-01240	MBL	RA-226	0.064	0.068	0.105	NA	U	pCi/L	ARS-010/EPA 903	7/3/17 10:19	CT
ARS1-B17-01240	MBL	RA-228	0.022	0.495	0.888	NA	U	pCi/L	ARS-010/EPA 904	6/26/17 14:48	CT

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-01240	LCSD	RA-226	27.226	4.387	27.378	4.420	N/A	pCi/L	ARS-010/EPA 903	7/3/17 10:19	CT	0.02	< 1
ARS1-B17-01240	LCSD	RA-228	40.447	6.704	41.050	6.822	N/A	pCi/L	ARS-010/EPA 904	6/26/17 14:48	CT	0.04	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-01240	LCSD	RA-226	27.226	4.387	27.378	4.420	N/A	pCi/L	ARS-010/EPA 903	7/3/17 10:19	CT	0.02	< 3
ARS1-B17-01240	LCSD	RA-228	40.447	6.704	41.050	6.822	N/A	pCi/L	ARS-010/EPA 904	6/26/17 14:48	CT	0.06	< 3

Matrix Spike

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery(%)	MS Acceptance Range
ARS1-B17-01240	MS	Ra-226	51.749	8.355	0.140	55.957	N/A	pCi/L	ARS-010/EPA 903	7/3/17 10:19	CT	92	60%-140%
ARS1-B17-01240	MS	Ra-228	55.183	9.237	1.845	51.929	N/A	pCi/L	ARS-010/EPA 904	6/26/17 14:48	CT	106	60%-140%
ARS1-B17-01240	MSD	Ra-226	44.958	7.267	0.143	56.172	N/A	pCi/L	ARS-010/EPA 903	7/3/17 10:19	CT	80	60%-140%
ARS1-B17-01240	MSD	Ra-228	44.311	7.407	1.468	51.570	N/A	pCi/L	ARS-010/EPA 904	6/26/17 14:48	CT	86	60%-140%

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

Batch # 56182

INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

QC Results Report

Sample Delivery Group: ARS1-17-01677

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-01229	LCS	RA-226	26.761	4.314	0.095	27.513	N/A	pCi/L	ARS-010/EPA 903	6/30/17 8:49	CT	97	75%-125%
ARS1-B17-01229	LCS	RA-228	37.902	6.314	1.125	39.784	N/A	pCi/L	ARS-010/EPA 904	6/30/17 8:49	CT	95	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-01229	MBL	RA-226	0.015	0.049	0.094	NA	U	pCi/L	ARS-010/EPA 903	6/30/17 8:49	CT
ARS1-B17-01229	MBL	RA-228	-0.288	0.323	0.621	NA	U	pCi/L	ARS-010/EPA 904	6/30/17 8:49	CT

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-01229	LCSD	RA-226	26.761	4.314	30.342	4.894	N/A	pCi/L	ARS-010/EPA 903	6/30/17 8:49	CT	0.39	< 1
ARS1-B17-01229	LCSD	RA-228	37.902	6.314	39.765	6.630	N/A	pCi/L	ARS-010/EPA 904	6/30/17 8:49	CT	0.14	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-01229	LCSD	RA-226	26.761	4.314	30.342	4.894	N/A	pCi/L	ARS-010/EPA 903	6/30/17 8:49	CT	0.55	< 3
ARS1-B17-01229	LCSD	RA-228	37.902	6.314	39.765	6.630	N/A	pCi/L	ARS-010/EPA 904	6/30/17 8:49	CT	0.20	< 3

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

ARS INTERNATIONAL

2609 North River Road • Port Allen, Louisiana 70767

1 (800) 401-4277 • Fax (225) 381-2996

Notes (Case Narrative):

Comments:

1.0) All MDA/MDC values are calculated on a sample specific basis.
2.0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.
3.0) Data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.
4.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix. Modified analyses are indicated by the subsequent addition of "m" to the procedure number (i.e. 900.0M).
5.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than the actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
6.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228 (Gamma Spectroscopy only).
7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234 (Gamma Spectroscopy only).
8.0) All gamma spectroscopy was performed utilizing high purity germanium detectors (**HPGe**).
9.0) ARS makes every attempt to match sample density to calibrated density; however, in some cases, it is not practical or possible to do so and data results may be affected (Gamma Spectroscopy only).
10.0) Gamma spectroscopy results are calculated values based on the **ORTEC®** GammaVision ENV32 Analysis Engine.
11.0) ACLASS DOD and ISO 17025 certification applies only to the following analytes and methods: Gross Alpha and Gross Beta (EPA 900, SM7110B&C, SW846 9310); Radium 226 (EPA 903, EPA 903.1, SM 7500 Ra-B, SW846 9315); Radium 228 (EPA 904, SM 7500 Ra-B SW846 9320); Iodine-131(EPA 901.1); Uranium by ICPMS (EPA 200.8); Strontium 89/90 (EPA 905, Eichrom SRW01, HASL 300 Sr-03-RC); Tritium (EPA 906, EPA 906M); Gamma Emitters (EPA 901.1, SM7120B, HASL 300 Ga-01-R); Americium-241, Curium 242/244, Plutonium 239/240 and 241, Thorium 228/230/232, Uranium 234/233 and 238 (Eichrom ACW03 VBS); Lead 210 (HASL 300 Pb-01-RC, Eichrom OTW01); Polonium 210 (HASL 300 Po-01-RC, HASL 300 Po-02-RC); Technetium-99 (Eichrom TCW02, Eichrom TCS01M).

Method References:

1.0) **EPA 600/4-80-032**; Prescribed Procedures for the Measurements of Radioactivity in Drinking Water, August 1980.
2.0) **Standard Methods for the Examination of Water and Wastewater** (On-Line Edition)
3.0) **EPA SW-846**; Test Methods for Evaluating Solid Waste, (On-Line edition)
4.0) **EPA 600/4/79-020**; Methods for Chemical Analysis of Water and Waste, March 1983.
5.0) **HASL 300**; The Procedures Manual of the Environmental Measurements Laboratory, Volume I, 28th Edition February, 1997.

Definitions:

CRDL	Contract Required Detection Limit
CSU	Combined Standard Uncertainty
DLC	Decision Level Concentration (ANSI N42.23) or critical level
DO	Duplicate Original
DUP	Method Duplicate
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
MDA	Minimum Detectable Activity
MDC	(Minimum Detectable Concentration) minimum concentration of the analyte that ARS can detect utilizing the specific analysis
MBL	Method Blank
MS/MSD	Matrix Spike/Matrix Spike Duplicate
N/A	Not Applicable
NP	Not Provided
NR	Not Referenced
LOD	Limit of Detection
LOQ	Limit of Quantitation

Data Qualifiers:

B	The analyte is found in both the associated method blank and the sample. This flag indicates probable blank contamination.
D	Sample analysis accomplished through dilution.
J	The reported result is an estimated value above the limit of detection but outside of quantitation range (e.g., matrix interference was observed).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).
U	Activity is below the MDC, MDA, MDL, or LOD
N	The analyte is a tentatively identified compound using mass spectrometry or any non-customer requested compounds that are tentatively identified.
*	LCS/LCSD or MS/MSD fails RPD criteria.
S	Spike
SC	Subcontracted out to another qualified laboratory
H	Holding time exceeded

B Environmental Laboratory, LLC

1606 E Brazos Suite D Victoria, Texas 77901 ph. (361) 572-8224

Chain Of Custody Rec

Batch # 56182 | TEMP UN-C: 7.6 | Page ___ of ___ | THERM ID# 3 | TEMP Corr: 7.4

Customer / Report Information | **Billing Information** X Check box if Billing is the same as Report Information

Name: Coleto Creek Power	Address:
Attention: Rick Coleman	Attention: PO #
Address: P.O. Box 8; Fannin, TX 77960	Project: CCR Sampling
	Comments:

Phone: 361-788-5145 | FAX:

EMAIL: richard.coleman@dynegy.com

Requested Analysis (D, A, F, B, C, E) | Completed By laboratory

Sample Information | **Matrix** | **Container** | **Preservative** | **Custody Seals Present** Yes ☐ No ☐ | **Intact** Yes ☐ No ☐

Client / Field Sample ID	Collected Date	Collected Time	G = Grab C = Composite	Matrix (DW - Drinking H20, S - Solid, WW - Waste H20, SL - Sludge, L - Liquid, w - Water)	TYPE	NUMBER	Size	Preservative	Metals* (D)	Cl, F*, SO4 (A)	pH	TDS (C)	Ra226 & Ra228 (F)	Alk:Tot, Carb, BiCarb (B)	Diss Li & Mo (E)	LAB Sample Number
Dup 1	6-6-15		G	WW	P	6	1L 500mL 250mL	H2SO4 ☐ H3PO4 ☐ ICE ☐ HNO3 ☒ NaOH ☐ HCL ☐ Na2SO3 ☐	X	X	X	X	X	X	X	S171571808
BLK		1515	G	WW	P	6	1L 500mL 250ml	H2SO4 ☐ H3PO4 ☐ ICE ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3 ☐	X	X	X	X	X	X	X	S17157180A
mw-4		1128	G	WW	P	6	1L 500mL 250mL	H2SO4 ☐ H3PO4 ☐ ICE ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3 ☐	X	X	X	X	X	X	X	S17157180B
mw-4/ms		1128	G	WW	P	6	1L 500mL 250mL	H2SO4 ☐ H3PO4 ☐ ICE ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3 ☐	X	X	X	X	X	X	X	
mw-4/msd		1128	G	WW	P	6	1L 500mL 250mL	H2SO4 ☐ H3PO4 ☐ ICE ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3 ☐	X	X	X	X	X	X	X	
mw-8		853	G	WW	P	6	1L 500mL 250ml	H2SO4 ☐ H3PO4 ☐ ICE ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3 ☐	X	X	X	X	X	X	X	S17157180C
BV-1		1434	G	WW	P	6	1L 500mL 250mL	H2SO4 ☐ H3PO4 ☐ ICE ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3 ☐	X	X	X	X	X	X	X	S17157180D

Required Turnaround: ☒ Routine (6-10 Business days) **Expedite / Rush:** ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business days ☐ 5 Business days ☐ Other REMARKS:

Surcharge will apply to RUSH TAT Authorized BY: | **Container Type:** P=Plastic, G=Glass, V=Voa, O=Other | **Carrier ID :**

Relinquished By:	Date: 6-6-17	Time: 1520	Received By:	Date: 6/6/17	Time: 1520
Relinquished By:	Date: 6/6/17	Time: 1630	Received By:	Date: 6-6-17	Time: 16:30
Relinquished By	Date:	Time:	Received By:	Date:	Time:

FLuoride: MAL 0.25 mg/L Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Mg,K,Na, & Hg

B Environmental Laboratory, LLC

1606 E Brazos Suite D Victoria, Texas 77901 ph. (361) 572-8224

Chain Of Custody Rec

Batch # 56162

TEMP UN-C: 7.6 | Page ___ of ___

THERM ID# 3 | TEMP Corr: 7.4

Customer / Report Information	Billing Information	X Check box if Billing is the same as Report Information
Name: Coleto Creek Power	Address:	Phone: 361-788-5145 FAX:
Attention: Rick Coleman	Attention: PO #	EMAIL: richard.coleman@dynegy.com
Address: P.O. Box 8; Fannin, TX 77960	Project: CCR Sampling Comments:	Requested Analysis / Completed By laboratory

Sample Information			Matrix	Container																Custody Seals Present / Intact / LAB Sample Number
Client / Field Sample ID	Collected Date	Collected Time	G = Grab C = Composite	DW - Drinking H20 S - Solid WW - Waste H20 SL - Sludge L - Liquid w - Water	TYPE	NUMBER	Size	Preservative				Metals*	Cl, F*, SO4	pH	TDS	Ra226 & Ra228	Alk:Tot, Carb,BiCarb	Diss Li & Mo		
BV-10	6-6-17	1404	G	WW	P	6	1L / 500mL / 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE	☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3			X	X	X	X	X	X	X		S17157180E
BV-15		1040	G	WW	P	6	1L / 500mL / 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE	☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3			X	X	X	X	X	X	X		S17157180F
BV-19		1332	G	WW	P	6	1L / 500mL / 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE	☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3			X	X	X	X	X	X	X		S17157180G
BV-21		1007	G	WW	P	6	1L / 500mL / 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE	☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3			X	X	X	X	X	X	X		S17157180H
BV-22		937	G	WW	P	6	1L / 500mL / 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE	☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3			X	X	X	X	X	X	X		S17157180I
			G	WW	P	6	1L / 500mL / 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE	☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3			X	X	X	X	X	X	X		
			G	WW	P	6	1L / 500mL / 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE	☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3			X	X	X	X	X	X	X		

Required Turnaround: ☒ Routine (6-10 Business days) Expedite / Rush: ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business days ☐ 5 Business days ☐ Other ____ REMARKS:

Surcharge will apply to RUSH TAT Authorized BY: | Container Type: P=Plastic, G=Glass, V=Voa, O=Other | Carrier ID :

Relinquished By:		Date:	6-6-17	Time:	1520	Received By:		Date:	6/6/17	Time:	1520
Relinquished By:		Date:	6/6/17	Time:	1630	Received By:		Date:	6-6-17	Time:	16:30
Relinquished By		Date:		Time:		Received By:		Date:		Time:	

FLuoride: MAL 0.25 mg/L Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Mg,K,Na, & Hg

BatchNo: 56324

SAMPLE REPORT

T104704328-17-14

Business

Coleto Creek Power - R Coleman
PO Box 8
Fannin TX 77960
Att: Rick Coleman

Laboratory

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901
ph. 361-572-8224

Reference Information

Project: CCR Sampling

Printed: Wednesday, July 12, 2017

Re: Coleto Creek Power - R Coleman

Dear: Rick Coleman

Attached are the results for sample(s) received on 6/8/2017

The analytical results relate only to the samples tested.
All supporting quality data meets the requirements of NELAC unless noted in the case narrative section of the report.

This report contains 26 pages (including the cover page)

If you have any questions concerning this report, please do not hesitate to call (361) 572-8224 or Fax us at (361) 572-4115

Respectfully Submitted,

Kevin Baros

Laboratory Director

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56324

Batch No: 56324

Sample Receipt Checklist

Date Received: 6/8/2017

Project	CCR Sampling	Received By:	Woodruff
Login completed by:	Woodruff	6/8/2017	
	Signature	LoginDate:	

Carrier Name: Walk In

Shipping container/cooler in good condition?	☑ YES	☐ NO	☐ Not Present	
Custody seals intact on shipping container/cooler?	☐ YES	☐ NO	☑ Not Present	
Custody seals intact on sample bottles?	☐ YES	☐ NO	☑ Not Present	
Chain of Custody present?	☑ YES	☐ NO		
Chain of Custody signed when relinquished and received	☑ YES	☐ NO		
Chain of Custody agrees with sample labels?	☑ YES	☐ NO		
Samples in proper container/bottles?	☑ YES	☐ NO		
Sample containers intact?	☑ YES	☐ NO		
Sufficient sample volume for indicated tests?	☑ YES	☐ NO		
All samples received within holding times?	☑ YES	☐ NO		
Container/Temp Blank - temperature in compliance?	☑ YES	☐ NO	>0 <6 °C On Ice	
Water - VOA vials have zero headspace? Bubble < 6mm?	☐ YES	☐ NO	☑ No VOA Vials submitted	
Water - pH acceptable upon receipt?	☑ YES	☐ NO	☐ Not Applicable	

*TEMP 2.3/2.1 | pH Adjusted? No | Checked By L. Vahrenkamp

Any No and/or N/A (not applicable) response must be detailed in the comments section below.

Client contacted		PersonContacted	
Contacted by:		Date Contacted:	

Regarding

Comments

Therm #3. HNO3 Lot # 2-42-12. pH Paper Lot # 2-25-6.

Corrective Action

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56324

Sample Report Information

Sample ID:	S171591626	Client ID:	MW-5	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #5
Notes:

Batch No: 56324
Sampled: 6/8/2017 8:10 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	139	mg/L	EPA 300	K Baros	6/12/2017 17:16	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	288	mg/L	SM 2320 B		6/18/2017 15:48	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/18/2017 15:48	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	288	mg/L	SM 2320 B		6/18/2017 15:48	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.55	mg/L	EPA 300	K Baros	6/12/2017 17:16	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	6.8	SU	SM 4500-H+B	C Watts	6/8/2017 16:40					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	862	mg/L	SM2540C	C Watts	6/9/2017 15:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			6/13/2017 13:08					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	182	mg/L	EPA 300	K Baros	6/12/2017 17:16	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			6/30/2017 8:49					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56324

Sample Report Information

Sample ID:	S17159162A	Client ID:	MW-10	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #10
Notes:

Batch No: 56324
Sampled: 6/8/2017 8:35 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	77	mg/L	EPA 300	K Baros	6/12/2017 16:00	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	236	mg/L	SM 2320 B		6/18/2017 16:07	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/18/2017 16:07	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	236	mg/L	SM 2320 B		6/18/2017 16:07	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.84	mg/L	EPA 300	K Baros	6/12/2017 16:00	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.2	SU	SM 4500-H+B	C Watts	6/8/2017 16:40					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	604	mg/L	SM2540C	C Watts	6/9/2017 15:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			6/13/2017 13:47					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	92	mg/L	EPA 300	K Baros	6/12/2017 16:00	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			6/30/2017 8:49					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56324

Sample Report Information

Sample ID:	S17159162B	Client ID:	MW-10A	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW 10A
Notes:

Batch No: 56324
Sampled: 6/8/2017 9:00 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	366	mg/L	EPA 300	K Baros	6/12/2017 16:38	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	339	mg/L	SM 2320 B		6/18/2017 16:21	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/18/2017 16:21	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	339	mg/L	SM 2320 B		6/18/2017 16:21	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.45	mg/L	EPA 300	K Baros	6/12/2017 16:38	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	6.78	SU	SM 4500-H+B	C Watts	6/8/2017 16:40					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	1258	mg/L	SM2540C	C Watts	6/13/2017 15:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			6/13/2017 13:13					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	84	mg/L	EPA 300	K Baros	6/12/2017 16:38	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			6/30/2017 8:49					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56324

QA Summary Report

Parameter	ID	Result	Ref Value	Amt Added	LOQ	Qualifer	Control	Flag	Comments
.Method Blank									
.- Chloride, IC	**Q171731033**	<1mg/L	0		1		1		Blank Acceptable.
6/12/2017 20:27									
Fluoride, IC	**Q171731033**	<0.25mg/L	0		0.25		0.25		Blank Acceptable.
6/12/2017 20:27									
Solids, Total Dissolved	**Q171631612**	<25mg/L	0		10		25		Blank Acceptable.
6/9/2017 15:00									
Solids, Total Dissolved	**Q171650908**	<25mg/L	0		10		25		Blank Acceptable.
6/13/2017 15:30									
Sulfate, IC	**Q171731033**	<1mg/L	0		1		1		Blank Acceptable.
6/12/2017 20:27									
Duplicate									
pH (Standard Units)	**Q171591650**	6.83SU	6.8		2	0.4%	20		Duplicate RPD Acceptable.
6/8/2017 16:40									
Solids, Total Dissolved	**Q171650910**	572mg/L	574		10	0.3%	20		Duplicate RPD Acceptable.
6/13/2017 15:30									
Solids, Total Dissolved	**Q171631613**	726mg/L	728		10	0.3%	20		Duplicate RPD Acceptable.
6/9/2017 15:00									
Laboratory Control Standard									
.- Chloride, IC	**Q171731034**	25.59mg/L	25		1	102.4%	80 - 120		Standard Recovery Acceptable.
6/12/2017 20:27						2.3%	20		Standard RPD Acceptable.
Fluoride, IC	**Q171731034**	2.02mg/L	2		0.25	101.0%	80 - 120		Standard Recovery Acceptable.
6/12/2017 20:27						1.0%	20		Standard RPD Acceptable.
pH (Standard Units)	**Q171591649**	6.99SU	7		2	99.9%	80 - 120		Standard Recovery Acceptable.
6/8/2017 16:40						0.1%	20		Standard RPD Acceptable.
Sulfate, IC	**Q171731034**	25.8mg/L	25		1	103.2%	80 - 120		Standard Recovery Acceptable.
6/12/2017 20:27						3.1%	20		Standard RPD Acceptable.
Matrix Spike									
.- Chloride, IC	**Q17173103C**	107mg/L	106	25	1	104.0%	80 - 120		Spike Recovery Acceptable.
6/12/2017 20:27						0.9%	20		Spike RPD Acceptable.
Fluoride, IC	**Q17173103C**	2.42mg/L	2.6	2	0.25	91.0%	80 - 120		Spike Recovery Acceptable.
6/12/2017 20:27						7.2%	20		Spike RPD Acceptable.
Sulfate, IC	**Q17173103C**	92mg/L	92	25	1	100.0%	70 - 130		Spike Recovery Acceptable.
6/12/2017 20:27						0.0%	20		Spike RPD Acceptable.
Matrix Spike Dup									
.- Chloride, IC	**Q17173103D**	107mg/L	106	25	1	104.0%	80 - 120		Spike Recovery Acceptable.
6/12/2017 21:05						0.9%	20		Spike RPD Acceptable.
Fluoride, IC	**Q17173103D**	2.43mg/L	2.6	2	0.25	91.5%	80 - 120		Spike Recovery Acceptable.
6/12/2017 21:05						6.8%	20		Spike RPD Acceptable.
Sulfate, IC	**Q17173103D**	92mg/L	92	25	1	100.0%	70 - 130		Spike Recovery Acceptable.
6/12/2017 21:05						0.0%	20		Spike RPD Acceptable.

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56324

Flag and Qualifier Legend

Negative - Result Detected

Caution - Problem Detected

Warning - Null Value

MDL = Method Detection Limit ***DF = Dilution Factor***

LOQ = Limit of Quantitation ***j = Analyte detected between MDL and LOQ***

S = surrogate standard out of limit ***H = sample out of hold time***

MS, MSD, RPD- Failure may occur due to matrix interference, data released per QA plan

Wednesday, July 12, 2017 **B Environmental - LDMS QA Report Summary**

Note: THANK YOU!

DHL Analytical, Inc. **Date:** *21-Jun-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Lab Order: 1706106

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition and Standard Methods.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives except where noted in the following. For Total Metals Analysis, the recoveries of up to three analytes for the Matrix Spike and Matrix Spike Duplicate (1706105-03 MS/MSD) were outside of the method control limits. These are flagged accordingly in the QC Summary Report. These analytes were within method control limits in the associated LCS. No further corrective action was taken.

For Total Metals Analysis, the RPD of Boron for the Serial Dilution (1706105-03 SD) was above the method control limit. This is flagged accordingly in the QC Summary Report. This analyte was within method control limits in the associated Post Digestion Spike. No further corrective action was taken.

For Total/Dissolved Metals Analysis, the results of Dissolved Lithium/Molybdenum for two samples were slightly higher than the results of Total Lithium/Molybdenum. The results were within acceptable analytical variation limits. No further corrective action was taken.

DHL Analytical, Inc.

Date: *21-Jun-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (56324)
Lab Order: 1706106

Client Sample ID: MW-5
Lab ID: 1706106-01
Alternate ID: S171591626
Collection Date: 06/08/17 08:10 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	0.0177	0.00500	0.0100		mg/L	1	06/12/17 02:41 PM
Dissolved Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	06/12/17 02:41 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **CVD**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	06/13/17 01:08 PM
Arsenic	0.00908	0.00200	0.00500		mg/L	1	06/13/17 01:08 PM
Barium	0.0701	0.00300	0.0100		mg/L	1	06/13/17 01:08 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 01:08 PM
Boron	0.122	0.0100	0.0300		mg/L	1	06/13/17 01:08 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 01:08 PM
Calcium	118	1.00	3.00		mg/L	10	06/13/17 12:23 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	06/13/17 01:08 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	06/13/17 01:08 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 01:08 PM
Lithium	0.0200	0.00500	0.0100		mg/L	1	06/13/17 01:08 PM
Magnesium	23.4	0.100	0.300		mg/L	1	06/13/17 01:08 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	06/13/17 01:08 PM
Potassium	1.52	0.100	0.300		mg/L	1	06/13/17 01:08 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	06/13/17 01:08 PM
Sodium	127	1.00	3.00		mg/L	10	06/13/17 12:23 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	06/13/17 01:08 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/12/17 03:35 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	288	10.0	20.0		mg/L @ pH 4.52	1	06/18/17 03:48 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	06/18/17 03:48 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	06/18/17 03:48 PM
Alkalinity, Total (As CaCO3)	288	20.0	20.0		mg/L @ pH 4.52	1	06/18/17 03:48 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *21-Jun-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (56324)
Lab Order: 1706106

Client Sample ID: MW-10
Lab ID: 1706106-02
Alternate ID: S17159162A
Collection Date: 06/08/17 08:35 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	0.0151	0.00500	0.0100		mg/L	1	06/12/17 02:55 PM
Dissolved Molybdenum	0.106	0.00200	0.00500		mg/L	1	06/12/17 02:55 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **CVD**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	06/13/17 01:47 PM
Arsenic	0.0144	0.00200	0.00500		mg/L	1	06/13/17 01:47 PM
Barium	0.0544	0.00300	0.0100		mg/L	1	06/13/17 01:47 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 01:47 PM
Boron	7.54	0.100	0.300		mg/L	10	06/13/17 12:25 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 01:47 PM
Calcium	58.1	1.00	3.00		mg/L	10	06/13/17 12:25 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	06/13/17 01:47 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	06/13/17 01:47 PM
Lead	0.000551	0.000300	0.00100	J	mg/L	1	06/13/17 01:47 PM
Lithium	0.0115	0.00500	0.0100		mg/L	1	06/13/17 01:47 PM
Magnesium	9.43	0.100	0.300		mg/L	1	06/13/17 01:47 PM
Molybdenum	0.106	0.00200	0.00500		mg/L	1	06/13/17 01:47 PM
Potassium	0.817	0.100	0.300		mg/L	1	06/13/17 01:47 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	06/13/17 01:47 PM
Sodium	133	1.00	3.00		mg/L	10	06/13/17 12:25 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	06/13/17 01:47 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/12/17 03:38 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	236	10.0	20.0		mg/L @ pH 4.51	1	06/18/17 04:07 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	06/18/17 04:07 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	06/18/17 04:07 PM
Alkalinity, Total (As CaCO3)	236	20.0	20.0		mg/L @ pH 4.51	1	06/18/17 04:07 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level
C	Sample Result or QC discussed in the Case Narrative
E	TPH pattern not Gas or Diesel Range Pattern
MDL	Method Detection Limit
RL	Reporting Limit
B	Analyte detected in the associated Method Blank
DF	Dilution Factor
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *21-Jun-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (56324)
Lab Order: 1706106

Client Sample ID: MW-10A
Lab ID: 1706106-03
Alternate ID: S17159162B
Collection Date: 06/08/17 09:00 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **CVD**
Dissolved Lithium	0.0248	0.00500	0.0100		mg/L	1	06/12/17 02:57 PM
Dissolved Molybdenum	0.00225	0.00200	0.00500	J	mg/L	1	06/12/17 02:57 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **CVD**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	06/13/17 01:13 PM
Arsenic	0.00495	0.00200	0.00500	J	mg/L	1	06/13/17 01:13 PM
Barium	0.0963	0.00300	0.0100		mg/L	1	06/13/17 01:13 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 01:13 PM
Boron	0.205	0.0100	0.0300		mg/L	1	06/13/17 01:13 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	06/13/17 01:13 PM
Calcium	178	1.00	3.00		mg/L	10	06/13/17 01:06 PM
Chromium	0.00219	0.00200	0.00500	J	mg/L	1	06/13/17 01:13 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	06/13/17 01:13 PM
Lead	0.000548	0.000300	0.00100	J	mg/L	1	06/13/17 01:13 PM
Lithium	0.0251	0.00500	0.0100		mg/L	1	06/13/17 01:13 PM
Magnesium	29.4	0.100	0.300		mg/L	1	06/13/17 01:13 PM
Molybdenum	0.00219	0.00200	0.00500	J	mg/L	1	06/13/17 01:13 PM
Potassium	1.67	0.100	0.300		mg/L	1	06/13/17 01:13 PM
Selenium	0.00200	0.00200	0.00500	J	mg/L	1	06/13/17 01:13 PM
Sodium	171	1.00	3.00		mg/L	10	06/13/17 01:06 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	06/13/17 01:13 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/12/17 03:40 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	339	10.0	20.0		mg/L @ pH 4.53	1	06/18/17 04:21 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	06/18/17 04:21 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	06/18/17 04:21 PM
Alkalinity, Total (As CaCO3)	339	20.0	20.0		mg/L @ pH 4.53	1	06/18/17 04:21 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *21-Jun-17*

CLIENT: B-Environmental
Work Order: 1706106
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_170612A

The QC data in batch 80868 applies to the following samples: 1706106-01A, 1706106-02A, 1706106-03A

Sample ID	MB-80868	Batch ID:	80868	TestNo:	SW7470A	Units:	mg/L
SampType:	MBLK	Run ID:	CETAC2_HG_170612A	Analysis Date:	6/12/2017 2:52:41 PM	Prep Date:	6/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.0000800	0.000200								

Sample ID	LCS-80868	Batch ID:	80868	TestNo:	SW7470A	Units:	mg/L
SampType:	LCS	Run ID:	CETAC2_HG_170612A	Analysis Date:	6/12/2017 2:54:57 PM	Prep Date:	6/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00212	0.000200	0.00200	0	106	85	115			

Sample ID	LCSD-80868	Batch ID:	80868	TestNo:	SW7470A	Units:	mg/L
SampType:	LCSD	Run ID:	CETAC2_HG_170612A	Analysis Date:	6/12/2017 2:57:13 PM	Prep Date:	6/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00213	0.000200	0.00200	0	106	85	115	0.471	15	

Sample ID	1706105-03A SD	Batch ID:	80868	TestNo:	SW7470A	Units:	mg/L
SampType:	SD	Run ID:	CETAC2_HG_170612A	Analysis Date:	6/12/2017 3:10:48 PM	Prep Date:	6/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.000400	0.00100	0	0				0	10	

Sample ID	1706105-03A MS	Batch ID:	80868	TestNo:	SW7470A	Units:	mg/L
SampType:	MS	Run ID:	CETAC2_HG_170612A	Analysis Date:	6/12/2017 3:15:20 PM	Prep Date:	6/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00206	0.000200	0.00200	0	103	80	120			

Sample ID	1706105-03A MSD	Batch ID:	80868	TestNo:	SW7470A	Units:	mg/L
SampType:	MSD	Run ID:	CETAC2_HG_170612A	Analysis Date:	6/12/2017 3:17:36 PM	Prep Date:	6/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00205	0.000200	0.00200	0	103	80	120	0.487	15	

Sample ID	1706105-03A PDS	Batch ID:	80868	TestNo:	SW7470A	Units:	mg/L
SampType:	PDS	Run ID:	CETAC2_HG_170612A	Analysis Date:	6/12/2017 3:45:40 PM	Prep Date:	6/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00240	0.000200	0.00250	0	96.0	85	115			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706106
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170612B

The QC data in batch 80853 applies to the following samples: 1706106-01B, 1706106-02B, 1706106-03B

Sample ID **MB-80853** Batch ID: **80853** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS5_170612B** Analysis Date: **6/12/2017 2:18:00 PM** Prep Date: **6/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.00500	0.0100								
Molybdenum	<0.00200	0.00500								

Sample ID **LCS-80853** Batch ID: **80853** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS5_170612B** Analysis Date: **6/12/2017 2:20:00 PM** Prep Date: **6/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.187	0.0100	0.200	0	93.7	80	120			
Molybdenum	0.189	0.00500	0.200	0	94.6	80	120			

Sample ID **LCSD-80853** Batch ID: **80853** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS5_170612B** Analysis Date: **6/12/2017 2:22:00 PM** Prep Date: **6/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.187	0.0100	0.200	0	93.6	80	120	0.126	15	
Molybdenum	0.186	0.00500	0.200	0	93.1	80	120	1.68	15	

Sample ID **1706105-03B SD** Batch ID: **80853** TestNo: **SW6020A** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS5_170612B** Analysis Date: **6/12/2017 2:25:00 PM** Prep Date: **6/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.0250	0.0500	0	0.00999				0	10	
Molybdenum	<0.0100	0.0250	0	0.00916				0	10	

Sample ID **1706105-03B PDS** Batch ID: **80853** TestNo: **SW6020A** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS5_170612B** Analysis Date: **6/12/2017 2:43:00 PM** Prep Date: **6/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.203	0.0100	0.200	0.00999	96.3	80	120			
Molybdenum	0.197	0.00500	0.200	0.00916	93.8	80	120			

Sample ID **1706105-03B MS** Batch ID: **80853** TestNo: **SW6020A** Units: **mg/L**
SampType: **MS** Run ID: **ICP-MS5_170612B** Analysis Date: **6/12/2017 2:45:00 PM** Prep Date: **6/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.197	0.0100	0.200	0.00999	93.4	80	120			
Molybdenum	0.198	0.00500	0.200	0.00916	94.4	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL
DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706106
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170612B

Sample ID **1706105-03B MSD** Batch ID: **80853** TestNo: **SW6020A** Units: **mg/L**
SampType: **MSD** Run ID: **ICP-MS5_170612B** Analysis Date: **6/12/2017 2:47:00 PM** Prep Date: **6/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.201	0.0100	0.200	0.00999	95.7	80	120	2.32	15	
Molybdenum	0.197	0.00500	0.200	0.00916	94.1	80	120	0.307	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706106
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170613A

The QC data in batch 80851 applies to the following samples: 1706106-01A, 1706106-02A, 1706106-03A

Sample ID **MB-80851** Batch ID: **80851** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS5_170613A** Analysis Date: **6/13/2017 12:00:00 PM** Prep Date: **6/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.000800	0.00250								
Arsenic	<0.00200	0.00500								
Barium	<0.00300	0.0100								
Beryllium	<0.000300	0.00100								
Boron	<0.0100	0.0300								
Cadmium	<0.000300	0.00100								
Calcium	<0.100	0.300								
Chromium	<0.00200	0.00500								
Cobalt	<0.00300	0.00500								
Lead	<0.000300	0.00100								
Lithium	<0.00500	0.0100								
Magnesium	<0.100	0.300								
Molybdenum	<0.00200	0.00500								
Potassium	<0.100	0.300								
Selenium	<0.00200	0.00500								
Sodium	<0.100	0.300								
Thallium	<0.000500	0.00150								

Sample ID **LCS-80851** Batch ID: **80851** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS5_170613A** Analysis Date: **6/13/2017 12:02:00 PM** Prep Date: **6/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.197	0.00250	0.200	0	98.7	80	120			
Arsenic	0.198	0.00500	0.200	0	98.9	80	120			
Barium	0.195	0.0100	0.200	0	97.3	80	120			
Beryllium	0.199	0.00100	0.200	0	99.6	80	120			
Boron	0.191	0.0300	0.200	0	95.4	80	120			
Cadmium	0.197	0.00100	0.200	0	98.5	80	120			
Calcium	5.09	0.300	5.00	0	102	80	120			
Chromium	0.196	0.00500	0.200	0	98.2	80	120			
Cobalt	0.200	0.00500	0.200	0	99.9	80	120			
Lead	0.196	0.00100	0.200	0	98.2	80	120			
Lithium	0.197	0.0100	0.200	0	98.3	80	120			
Magnesium	5.05	0.300	5.00	0	101	80	120			
Molybdenum	0.190	0.00500	0.200	0	94.8	80	120			
Potassium	4.95	0.300	5.00	0	99.1	80	120			
Selenium	0.197	0.00500	0.200	0	98.6	80	120			
Sodium	5.18	0.300	5.00	0	104	80	120			
Thallium	0.204	0.00150	0.200	0	102	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706106
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170613A

Sample ID LCSD-80851	Batch ID: 80851	TestNo: SW6020A	Units: mg/L
SampType: LCSD	Run ID: ICP-MS5_170613A	Analysis Date: 6/13/2017 12:04:00 PM	Prep Date: 6/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.198	0.00250	0.200	0	98.9	80	120	0.215	15	
Arsenic	0.199	0.00500	0.200	0	99.7	80	120	0.809	15	
Barium	0.194	0.0100	0.200	0	97.2	80	120	0.095	15	
Beryllium	0.199	0.00100	0.200	0	99.4	80	120	0.214	15	
Boron	0.204	0.0300	0.200	0	102	80	120	6.78	15	
Cadmium	0.195	0.00100	0.200	0	97.5	80	120	1.02	15	
Calcium	4.96	0.300	5.00	0	99.3	80	120	2.53	15	
Chromium	0.194	0.00500	0.200	0	96.9	80	120	1.36	15	
Cobalt	0.201	0.00500	0.200	0	100	80	120	0.402	15	
Lead	0.196	0.00100	0.200	0	98.0	80	120	0.228	15	
Lithium	0.196	0.0100	0.200	0	98.1	80	120	0.140	15	
Magnesium	5.06	0.300	5.00	0	101	80	120	0.309	15	
Molybdenum	0.189	0.00500	0.200	0	94.3	80	120	0.493	15	
Potassium	4.95	0.300	5.00	0	99.0	80	120	0.086	15	
Selenium	0.199	0.00500	0.200	0	99.5	80	120	0.906	15	
Sodium	5.17	0.300	5.00	0	103	80	120	0.186	15	
Thallium	0.202	0.00150	0.200	0	101	80	120	0.901	15	

Sample ID 1706105-03A SD	Batch ID: 80851	TestNo: SW6020A	Units: mg/L
SampType: SD	Run ID: ICP-MS5_170613A	Analysis Date: 6/13/2017 12:09:00 PM	Prep Date: 6/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	1.20	1.50	0	0.884				30.7	10	R
Calcium	70.5	15.0	0	69.3				1.73	10	
Sodium	111	15.0	0	110				1.14	10	

Sample ID 1706105-03A PDS	Batch ID: 80851	TestNo: SW6020A	Units: mg/L
SampType: PDS	Run ID: ICP-MS5_170613A	Analysis Date: 6/13/2017 12:27:00 PM	Prep Date: 6/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	3.06	0.300	2.00	0.884	109	80	120			
Calcium	117	3.00	50.0	69.3	95.8	80	120			
Sodium	162	3.00	50.0	110	105	80	120			

Sample ID 1706105-03A MS	Batch ID: 80851	TestNo: SW6020A	Units: mg/L
SampType: MS	Run ID: ICP-MS5_170613A	Analysis Date: 6/13/2017 12:28:00 PM	Prep Date: 6/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	1.26	0.300	0.200	0.884	190	80	120			S
Calcium	71.3	3.00	5.00	69.3	41.0	80	120			S
Sodium	113	3.00	5.00	110	65.7	80	120			S

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706106
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170613A

Sample ID 1706105-03A MSD	Batch ID: 80851	TestNo: SW6020A	Units: mg/L
SampType: MSD	Run ID: ICP-MS5_170613A	Analysis Date: 6/13/2017 12:30:00 PM	Prep Date: 6/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	1.27	0.300	0.200	0.884	191	80	120	0.150	15	S
Calcium	73.8	3.00	5.00	69.3	90.1	80	120	3.38	15	
Sodium	115	3.00	5.00	110	103	80	120	1.62	15	

Sample ID 1706105-03A SD	Batch ID: 80851	TestNo: SW6020A	Units: mg/L
SampType: SD	Run ID: ICP-MS5_170613A	Analysis Date: 6/13/2017 1:33:00 PM	Prep Date: 6/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.00400	0.0125	0	0				0	10	
Arsenic	0.0103	0.0250	0	0.00944				8.71	10	
Barium	0.0877	0.0500	0	0.0891				1.52	10	
Beryllium	<0.00150	0.00500	0	0				0	10	
Cadmium	<0.00150	0.00500	0	0				0	10	
Chromium	<0.0100	0.0250	0	0				0	10	
Cobalt	<0.0150	0.0250	0	0				0	10	
Lead	<0.00150	0.00500	0	0.000470				0	10	
Lithium	<0.0250	0.0500	0	0.00998				0	10	
Magnesium	10.0	1.50	0	10.2				1.91	10	
Molybdenum	<0.0100	0.0250	0	0.00958				0	10	
Potassium	1.24	1.50	0	1.25				1.08	10	
Selenium	<0.0100	0.0250	0	0				0	10	
Thallium	<0.00250	0.00750	0	0				0	10	

Sample ID 1706105-03A PDS	Batch ID: 80851	TestNo: SW6020A	Units: mg/L
SampType: PDS	Run ID: ICP-MS5_170613A	Analysis Date: 6/13/2017 1:49:00 PM	Prep Date: 6/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.199	0.00250	0.200	0	99.5	80	120			
Arsenic	0.205	0.00500	0.200	0.00944	97.8	80	120			
Barium	0.281	0.0100	0.200	0.0891	95.7	80	120			
Beryllium	0.198	0.00100	0.200	0	98.9	80	120			
Cadmium	0.196	0.00100	0.200	0	97.9	80	120			
Chromium	0.201	0.00500	0.200	0	101	80	120			
Cobalt	0.195	0.00500	0.200	0	97.5	80	120			
Lead	0.194	0.00100	0.200	0.000470	96.6	80	120			
Lithium	0.201	0.0100	0.200	0.00998	95.6	80	120			
Magnesium	14.3	0.300	5.00	10.2	82.3	80	120			
Molybdenum	0.197	0.00500	0.200	0.00958	93.6	80	120			
Potassium	5.88	0.300	5.00	1.25	92.6	80	120			
Selenium	0.191	0.00500	0.200	0	95.7	80	120			
Thallium	0.201	0.00150	0.200	0	100	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706106
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170613A

Sample ID 1706105-03A MS	Batch ID: 80851	TestNo: SW6020A	Units: mg/L
SampType: MS	Run ID: ICP-MS5_170613A	Analysis Date: 6/13/2017 1:51:00 PM	Prep Date: 6/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.200	0.00250	0.200	0	99.9	80	120			
Arsenic	0.203	0.00500	0.200	0.00944	96.9	80	120			
Barium	0.282	0.0100	0.200	0.0891	96.2	80	120			
Beryllium	0.193	0.00100	0.200	0	96.7	80	120			
Cadmium	0.193	0.00100	0.200	0	96.4	80	120			
Chromium	0.193	0.00500	0.200	0	96.6	80	120			
Cobalt	0.193	0.00500	0.200	0	96.4	80	120			
Lead	0.194	0.00100	0.200	0.000470	96.8	80	120			
Lithium	0.200	0.0100	0.200	0.00998	95.3	80	120			
Magnesium	14.8	0.300	5.00	10.2	90.9	80	120			
Molybdenum	0.199	0.00500	0.200	0.00958	94.6	80	120			
Potassium	5.98	0.300	5.00	1.25	94.5	80	120			
Selenium	0.188	0.00500	0.200	0	94.2	80	120			
Thallium	0.205	0.00150	0.200	0	102	80	120			

Sample ID 1706105-03A MSD	Batch ID: 80851	TestNo: SW6020A	Units: mg/L
SampType: MSD	Run ID: ICP-MS5_170613A	Analysis Date: 6/13/2017 1:53:00 PM	Prep Date: 6/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.199	0.00250	0.200	0	99.4	80	120	0.567	15	
Arsenic	0.202	0.00500	0.200	0.00944	96.2	80	120	0.675	15	
Barium	0.283	0.0100	0.200	0.0891	97.0	80	120	0.580	15	
Beryllium	0.193	0.00100	0.200	0	96.3	80	120	0.397	15	
Cadmium	0.192	0.00100	0.200	0	96.2	80	120	0.200	15	
Chromium	0.193	0.00500	0.200	0	96.4	80	120	0.216	15	
Cobalt	0.192	0.00500	0.200	0	96.0	80	120	0.436	15	
Lead	0.192	0.00100	0.200	0.000470	95.8	80	120	0.941	15	
Lithium	0.198	0.0100	0.200	0.00998	93.9	80	120	1.34	15	
Magnesium	14.9	0.300	5.00	10.2	93.1	80	120	0.743	15	
Molybdenum	0.199	0.00500	0.200	0.00958	94.7	80	120	0.097	15	
Potassium	5.96	0.300	5.00	1.25	94.2	80	120	0.215	15	
Selenium	0.189	0.00500	0.200	0	94.5	80	120	0.368	15	
Thallium	0.202	0.00150	0.200	0	101	80	120	1.53	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706106
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_170618A

The QC data in batch 80973 applies to the following samples: 1706106-01C, 1706106-02C, 1706106-03C

Sample ID **MB-80973** Batch ID: **80973** TestNo: **M2320 B** Units: **mg/L @ pH 4.42**
SampType: **MBLK** Run ID: **TITRATOR_170618A** Analysis Date: **6/18/2017 3:32:00 PM** Prep Date: **6/18/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0								
Alkalinity, Total (As CaCO3)	<20.0	20.0								

Sample ID **LCS-80973** Batch ID: **80973** TestNo: **M2320 B** Units: **mg/L @ pH 3.95**
SampType: **LCS** Run ID: **TITRATOR_170618A** Analysis Date: **6/18/2017 3:36:00 PM** Prep Date: **6/18/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	53.1	20.0	50.00	0	106	74	129			

Sample ID **1706106-01C-DUP** Batch ID: **80973** TestNo: **M2320 B** Units: **mg/L @ pH 4.52**
SampType: **DUP** Run ID: **TITRATOR_170618A** Analysis Date: **6/18/2017 3:59:00 PM** Prep Date: **6/18/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	285	20.0	0	288.2				1.22	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	285	20.0	0	288.2				1.22	20	

Sample ID **1706153-01E-DUP** Batch ID: **80973** TestNo: **M2320 B** Units: **mg/L @ pH 4.52**
SampType: **DUP** Run ID: **TITRATOR_170618A** Analysis Date: **6/18/2017 6:26:00 PM** Prep Date: **6/18/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	225	20.0	0	227.2				0.840	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	225	20.0	0	227.2				0.840	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

2609 North River Road, Port Allen, Louisiana 70767
(800) 401-4277 -- FAX (225) 381-2996

ARS International, LLC

Laboratory Analysis Report

ARS1-17-01673

Prepared for:

B-Environmental

Kevin Baros
1606 East Brazos Street
Suite D
Victoria, TX 77901

dbenviro@suddenlinkmail.com; cbenviro@suddenlinkmail.com
swbenviro@suddenlinkmail.com

Phone: 361-572-8224
Fax: 361-572-4115

Project Manager Review

Management Review

Notes: ARS International, LLC assumes no liability for the use or the interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

Contact Person: Questions regarding this analytical report should be addressed to:

Project Manager

ProjectManagers@amrad.com

Phone: 225.381.2991
Fax: 225.381.2996

ANAB ACCREDITED ISO/IEC 17025 DOD ELAP

LELAP Cert# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01673
Client Sample ID: S171591626 (BATCH 56324)
Sample Collection Date: 06/08/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01673-001
Date Received: 06/12/17
Report Date: 07/11/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.105	0.101	0.147	0.054	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/30/17 8:49	CTRAMEL	106%
Ra-228	0.740	0.735	1.194	0.553	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/23/17 12:57	CTRAMEL	116%

Project Manager Review

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01673
Client Sample ID: S17159162A (BATCH 56324)
Sample Collection Date: 06/08/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01673-002
Date Received: 06/12/17
Report Date: 07/11/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.062	0.094	0.161	0.061	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/30/17 8:49	CTRAMEL	91%
Ra-228	0.005	0.702	1.270	0.589	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	06/23/17 12:57	CTRAMEL	97%

Project Manager Review

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01673
Client Sample ID: S17159162B (BATCH 56324)
Sample Collection Date: 06/08/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01673-003
Date Received: 06/12/17
Report Date: 07/11/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.654	0.220	0.145	0.054	NP		pCi/L	ARS-010/EPA 903.0/904.0	06/30/17 8:49	CTRAMEL	105%
Ra-228	1.371	0.815	1.212	0.563	NP		pCi/L	ARS-010/EPA 903.0/904.0	06/23/17 12:57	CTRAMEL	112%

Project Manager Review

LELAP Certificate# 01949

Batch # 56324

INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

QC Results Report

Sample Delivery Group: ARS1-17-01673

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-01229	LCS	RA-226	26.761	4.314	0.095	27.513	N/A	pCi/L	ARS-010/EPA 903	6/30/17 8:49	CT	97	75%-125%
ARS1-B17-01229	LCS	RA-228	37.902	6.314	1.125	39.784	N/A	pCi/L	ARS-010/EPA 904	6/30/17 8:49	CT	95	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-01229	MBL	RA-226	0.015	0.049	0.094	NA	U	pCi/L	ARS-010/EPA 903	6/30/17 8:49	CT
ARS1-B17-01229	MBL	RA-228	-0.288	0.323	0.621	NA	U	pCi/L	ARS-010/EPA 904	6/30/17 8:49	CT

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-01229	LCSD	RA-226	26.761	4.314	30.342	4.894	N/A	pCi/L	ARS-010/EPA 903	6/30/17 8:49	CT	0.39	< 1
ARS1-B17-01229	LCSD	RA-228	37.902	6.314	39.765	6.630	N/A	pCi/L	ARS-010/EPA 904	6/30/17 8:49	CT	0.14	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-01229	LCSD	RA-226	26.761	4.314	30.342	4.894	N/A	pCi/L	ARS-010/EPA 903	6/30/17 8:49	CT	0.55	< 3
ARS1-B17-01229	LCSD	RA-228	37.902	6.314	39.765	6.630	N/A	pCi/L	ARS-010/EPA 904	6/30/17 8:49	CT	0.20	< 3

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

ARS INTERNATIONAL
2609 North River Road • Port Allen, Louisiana 70767
1 (800) 401-4277 • Fax (225) 381-2996

Notes (Case Narrative):

Comments:

1.0) All MDA/MDC values are calculated on a sample specific basis.
2.0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.
3.0) Data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.
4.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix. Modified analyses are indicated by the subsequent addition of "m" to the procedure number (i.e. 900.0M).
5.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than the actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
6.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228 (Gamma Spectroscopy only).
7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234 (Gamma Spectroscopy only).
8.0) All gamma spectroscopy was performed utilizing high purity germanium detectors (**HPGe**).
9.0) ARS makes every attempt to match sample density to calibrated density; however, in some cases, it is not practical or possible to do so and data results may be affected (Gamma Spectroscopy only).
10.0) Gamma spectroscopy results are calculated values based on the **ORTEC®** GammaVision ENV32 Analysis Engine.
11.0) ACLASS DOD and ISO 17025 certification applies only to the following analytes and methods: Gross Alpha and Gross Beta (EPA 900, SM7110B&C, SW846 9310); Radium 226 (EPA 903, EPA 903.1, SM 7500 Ra-B, SW846 9315); Radium 228 (EPA 904, SM 7500 Ra-B SW846 9320); Iodine-131(EPA 901.1); Uranium by ICPMS (EPA 200.8); Strontium 89/90 (EPA 905, Eichrom SRW01, HASL 300 Sr-03-RC); Tritium (EPA 906, EPA 906M); Gamma Emitters (EPA 901.1, SM7120B, HASL 300 Ga-01-R); Americium-241, Curium 242/244, Plutonium 239/240 and 241, Thorium 228/230/232, Uranium 234/233 and 238 (Eichrom ACW03 VBS); Lead 210 (HASL 300 Pb-01-RC, Eichrom OTW01); Polonium 210 (HASL 300 Po-01-RC, HASL 300 Po-02-RC); Technetium-99 (Eichrom TCW02, Eichrom TCS01M).

Method References:

1.0) **EPA 600/4-80-032**; Prescribed Procedures for the Measurements of Radioactivity in Drinking Water, August 1980.
2.0) **Standard Methods for the Examination of Water and Wastewater** (On-Line Edition)
3.0) **EPA SW-846**; Test Methods for Evaluating Solid Waste, (On-Line edition)
4.0) **EPA 600/4/79-020**; Methods for Chemical Analysis of Water and Waste, March 1983.
5.0) **HASL 300**; The Procedures Manual of the Environmental Measurements Laboratory, Volume I, 28th Edition February, 1997.

Definitions:

CRDL	Contract Required Detection Limit
CSU	Combined Standard Uncertainty
DLC	Decision Level Concentration (ANSI N42.23) or critical level
DO	Duplicate Original
DUP	Method Duplicate
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
MDA	Minimum Detectable Activity
MDC	(Minimum Detectable Concentration) minimum concentration of the analyte that ARS can detect utilizing the specific analysis
MBL	Method Blank
MS/MSD	Matrix Spike/Matrix Spike Duplicate
N/A	Not Applicable
NP	Not Provided
NR	Not Referenced
LOD	Limit of Detection
LOQ	Limit of Quantitation

Data Qualifiers:

B	The analyte is found in both the associated method blank and the sample. This flag indicates probable blank contamination.
D	Sample analysis accomplished through dilution.
J	The reported result is an estimated value above the limit of detection but outside of quantitation range (e.g., matrix interference was observed).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).
U	Activity is below the MDC, MDA, MDL, or LOD
N	The analyte is a tentatively identified compound using mass spectrometry or any non-customer requested compounds that are tentatively identified.
*	LCS/LCSD or MS/MSD fails RPD criteria.
S	Spike
SC	Subcontracted out to another qualified laboratory
H	Holding time exceeded

LELAP Cert# 01949 ***NELAP Cert# E87558***

ARS-059-010
Revision: 9.1
Revision Date: 03-14-2017

B Environmental Laboratory, LLC
1606 E Brazos Suite D Victoria, Texas 77901 ph. (361) 572-8224

Chain Of Custody Rec

Batch # 56324 | TEMP UN-C: 2.3 | Page___of ___
X Check box if Billing is the same as Report Information | THERM ID# 3 | TEMP Corr: 2.1

Customer / Report Information	Billing Information	
Name: Coleto Creek Power	Address:	Phone: 361-788-5145 FAX:
Attention: Rick Coleman	Attention: PO #	EMAIL: richard.coleman@dynegy.com
Address: P.O. Box 8; Fannin, TX 77960	Project: CCR Sampling Comments:	Requested Analysis / Completed By laboratory

Sample Information
Collected By:

Matrix: DW - Drinking H20, S - Solid, WW - Waste H20, SL - Sludge, L - Liquid, w - Water
G = Grab, C = Composite

Custody Seals Present: Yes ☐ No ☐
Intact: Yes ☐ No ☐

Client / Field Sample ID	Collected Date	Collected Time	G/C	Matrix	Container Type	Number	Size	Preservative	Metals* (D)	Cl, F*, SO4 (A)	pH (A)	TDS (B)	Ra226 & Ra228 (F)	Alk:Tot, Carb, BiCarb (C)	Diss Li & Mo (E)	LAB Sample Number
MW-5	6-8-17	810	G	WW	P	6	1L, 500mL, 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ ___ ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X	S171591626
MW-10	↓	835	G	WW	P	6	1L, 500mL, 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ ___ ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X	S17159162A
MW-10A	↓	900	G	WW	P	6	1L, 500mL, 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ ___ ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X	S17159162B
			G	WW	P	6	1L, 500mL, 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ ___ ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X	
			G	WW	P	6	1L, 500mL, 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ ___ ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X	
			G	WW	P	6	1L, 500mL, 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ ___ ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X	
			G	WW	P	6	1L, 500mL, 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ ___ ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X	

Required Turnaround: ☒ Routine (6-10 Business days) Expedite / Rush: ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business days ☐ 5 Business days ☐ Other ______ REMARKS:

Surcharge will apply to RUSH TAT Authorized BY: | Container Type: P=Plastic, G=Glass, V=Voa, O=Other | Carrier ID :

Relinquished By: [signature]	Date: 6-8-17	Time: 1615	Received By: [signature]	Date: 6-8-17	Time: 16:15
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By	Date:	Time:	Received By:	Date:	Time:

FLuoride: MAL 0.25 mg/L Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Mg,K,Na, & Hg

BatchNo: 56751

SAMPLE REPORT

T104704328-17-14

Business

Coleto Creek Power - R Coleman
PO Box 8
Fannin TX 77960
Att: Rick Coleman

Laboratory

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901
ph. 361-572-8224

Reference Information

Project: CCR

Printed: Wednesday, July 26, 2017

Re: Coleto Creek Power - R Coleman

Dear: Rick Coleman

Attached are the results for sample(s) received on 6/20/2017

The analytical results relate only to the samples tested.
All supporting quality data meets the requirements of NELAC unless noted in the case narrative section of the report.

This report contains 55 pages (including the cover page)

If you have any questions concerning this report, please do not hesitate to call (361) 572-8224 or Fax us at (361) 572-4115

Respectfully Submitted,

Kevin Baros

Laboratory Director

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56751

Batch No: 56751

Sample Receipt Checklist

Date Received: 6/20/2017

Project	CCR	Received By:	Vahrenkamp

Login completed by: Vahrenkamp (Signature) 6/20/2017 (LoginDate:)

Carrier Name: Walk In

Shipping container/cooler in good condition?	☑ YES	☐ NO	☐ Not Present
Custody seals intact on shipping container/cooler?	☐ YES	☐ NO	☑ Not Present
Custody seals intact on sample bottles?	☐ YES	☐ NO	☑ Not Present
Chain of Custody present?	☑ YES	☐ NO	
Chain of Custody signed when relinquished and received	☑ YES	☐ NO	
Chain of Custody agrees with sample labels?	☑ YES	☐ NO	
Samples in proper container/bottles?	☑ YES	☐ NO	
Sample containers intact?	☑ YES	☐ NO	
Sufficient sample volume for indicated tests?	☑ YES	☐ NO	
All samples received within holding times?	☑ YES	☐ NO	
Container/Temp Blank - temperature in compliance?	☑ YES	☐ NO	>0 <6 °C On Ice
Water - VOA vials have zero headspace? Bubble < 6mm?	☐ YES	☐ NO	☑ No VOA Vials submitted
Water - pH acceptable upon receipt?	☑ YES	☐ NO	☐ Not Applicable

*TEMP 4.8/4.6 | pH Adjusted? No | Checked By L. Vahrenkamp

Any No and/or N/A (not applicable) response must be detailed in the comments section below.

Client contacted		PersonContacted	
Contacted by:		Date Contacted:	

Regarding:

Comments:
Therm #3. HNO3 Lot # 2-42-12. pH Paper Lot # 2-25-6.

Corrective Action:

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56751

Sample Report Information

Sample ID:	S171711827	Client ID:	Blank	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR
Location: Blank
Notes:

Batch No: 56751
Sampled: 6/20/2017 3:00 PM

Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	< 1	mg/L	EPA 300	K Baros	6/21/2017 23:08	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	< 20	mg/L	SM 2320 B		6/27/2017 9:08	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/27/2017 9:08	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	< 20	mg/L	SM 2320 B		6/27/2017 9:08	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	< 0.25	mg/L	EPA 300	K Baros	6/21/2017 23:08	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	6.68	SU	SM 4500-H+B	C Watts	6/20/2017 16:50					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	< 25	mg/L	SM2540C	C Watts	6/21/2017 16:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			6/29/2017 15:15					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	< 1	mg/L	EPA 300	K Baros	6/21/2017 23:08	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/14/2017 7:39					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56751

Sample Report Information

Sample ID:	S17171182A	Client ID:	Dup	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR
Location: Dup
Notes:

Batch No: 56751
Sampled: 6/20/2017 12:00 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	39	mg/L	EPA 300	K Baros	6/21/2017 14:14	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	245	mg/L	SM 2320 B		6/27/2017 9:17	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/27/2017 9:17	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	245	mg/L	SM 2320 B		6/27/2017 9:17	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.54	mg/L	EPA 300	K Baros	6/21/2017 14:14	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.22	SU	SM 4500-H+B	C Watts	6/20/2017 16:50					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	330	mg/L	SM2540C	C Watts	6/21/2017 16:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	c	#			6/29/2017 15:47					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	27	mg/L	EPA 300	K Baros	6/21/2017 14:14	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	c	#			7/14/2017 7:40					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56751

Sample Report Information

Sample ID:	S17171182B	Client ID:	BV-21	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR
Location: BV 21
Notes:

Batch No: 56751
Sampled: 6/20/2017 10:45 AM

Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	40	mg/L	EPA 300	K Baros	6/21/2017 14:52	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	240	mg/L	SM 2320 B		6/27/2017 9:26	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/27/2017 9:26	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	240	mg/L	SM 2320 B		6/27/2017 9:26	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.61	mg/L	EPA 300	K Baros	6/21/2017 14:52	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.11	SU	SM 4500-H+B	C Watts	6/20/2017 16:50					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	356	mg/L	SM2540C	C Watts	6/21/2017 16:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			6/29/2017 14:57					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	45	mg/L	EPA 300	K Baros	6/21/2017 14:52	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/14/2017 7:40					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56751

Sample Report Information

Sample ID:	S17171182C	Client ID:	BV-22	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR
Location: BV 22
Notes:

Batch No: 56751
Sampled: 6/20/2017 9:35 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	39	mg/L	EPA 300	K Baros	6/21/2017 16:46	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	246	mg/L	SM 2320 B		6/27/2017 9:44	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/27/2017 9:44	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	246	mg/L	SM 2320 B		6/27/2017 9:44	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.54	mg/L	EPA 300	K Baros	6/21/2017 16:46	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.17	SU	SM 4500-H+B	C Watts	6/20/2017 16:50					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	320	mg/L	SM2540C	C Watts	6/21/2017 16:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			6/29/2017 15:49					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	27	mg/L	EPA 300	K Baros	6/21/2017 16:46	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/14/2017 7:40					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56751

Sample Report Information

Sample ID:	S17171182D	Client ID:	BV-15	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR
Location: BV 15
Notes:

Batch No: 56751
Sampled: 6/20/2017 11:20 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	50	mg/L	EPA 300	K Baros	6/21/2017 17:25	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	198	mg/L	SM 2320 B		6/27/2017	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/27/2017	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	198	mg/L	SM 2320 B		6/27/2017	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.82	mg/L	EPA 300	K Baros	6/21/2017 17:25	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.33	SU	SM 4500-H+B	C Watts	6/20/2017 16:50					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	376	mg/L	SM2540C	C Watts	6/21/2017 16:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			6/29/2017 15:51					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	82	mg/L	EPA 300	K Baros	6/21/2017 17:25	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/14/2017 7:39					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56751

Sample Report Information

Sample ID:	S17171182E	Client ID:	MW-4	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR
Location: MW #4
Notes:

Batch No: 56751
Sampled: 6/20/2017 8:42 AM

Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	101	mg/L	EPA 300	K Baros	6/21/2017 18:03	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	246	mg/L	SM 2320 B		6/27/2017 10:01	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/27/2017 10:01	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	246	mg/L	SM 2320 B		6/27/2017 10:01	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.62	mg/L	EPA 300	K Baros	6/21/2017 18:03	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.07	SU	SM 4500-H+B	C Watts	6/20/2017 16:50					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	626	mg/L	SM2540C	C Watts	6/21/2017 16:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			6/29/2017 15:53					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	157	mg/L	EPA 300	K Baros	6/21/2017 18:03	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/14/2017 7:39					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56751

Sample Report Information

Sample ID:	S17171182F	Client ID:	MW-8	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR
Location: MW #8
Notes:

Batch No: 56751
Sampled: 6/20/2017 10:11 AM

Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	67	mg/L	EPA 300	K Baros	6/21/2017 18:41	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	262	mg/L	SM 2320 B		6/27/2017	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/27/2017	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	262	mg/L	SM 2320 B		6/27/2017	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.43	mg/L	EPA 300	K Baros	6/21/2017 18:41	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.14	SU	SM 4500-H+B	C Watts	6/20/2017 16:50					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	476	mg/L	SM2540C	C Watts	6/21/2017 16:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			6/29/2017 15:54					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	89	mg/L	EPA 300	K Baros	6/21/2017 18:41	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/14/2017 7:39					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56751

Sample Report Information

Sample ID:	S17171182G	Client ID:	BV-1	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR
Location: BV-1
Notes:

Batch No: 56751
Sampled: 6/20/2017 2:15 PM

Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	138	mg/L	EPA 300	K Baros	6/21/2017 20:35	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	399	mg/L	SM 2320 B		6/27/2017 10:25	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/27/2017 10:25	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	399	mg/L	SM 2320 B		6/27/2017 10:25	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.76	mg/L	EPA 300	K Baros	6/21/2017 20:35	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.14	SU	SM 4500-H+B	C Watts	6/20/2017 16:50					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	856	mg/L	SM2540C	C Watts	6/21/2017 16:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			6/29/2017 15:56					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	176	mg/L	EPA 300	K Baros	6/21/2017 20:35	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/19/2017 9:21					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56751

Sample Report Information

Sample ID:	S17171182H	Client ID:	BV-5	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR
Location: BV-5
Notes:

Batch No: 56751
Sampled: 6/20/2017 2:43 PM

Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	106	mg/L	EPA 300	K Baros	6/21/2017 21:13	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	354	mg/L	SM 2320 B		6/27/2017 10:39	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/27/2017 10:39	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	354	mg/L	SM 2320 B		6/27/2017 10:39	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.58	mg/L	EPA 300	K Baros	6/21/2017 21:13	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.04	SU	SM 4500-H+B	C Watts	6/20/2017 16:50					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	716	mg/L	SM2540C	C Watts	6/21/2017 16:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			6/29/2017 15:58					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	145	mg/L	EPA 300	K Baros	6/21/2017 21:13	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/19/2017 9:21					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56751

Sample Report Information

Sample ID:	S17171182I	Client ID:	BV-10	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR
Location: BV-10
Notes:

Batch No: 56751
Sampled: 6/20/2017 1:44 PM

Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	84	mg/L	EPA 300	K Baros	6/21/2017 21:51	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	292	mg/L	SM 2320 B		6/27/2017 10:54	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/27/2017 10:54	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	292	mg/L	SM 2320 B		6/27/2017 10:54	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.82	mg/L	EPA 300	K Baros	6/21/2017 21:51	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.49	SU	SM 4500-H+B	C Watts	6/20/2017 16:50					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	532	mg/L	SM2540C	C Watts	6/21/2017 16:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			6/29/2017 13:34					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	78	mg/L	EPA 300	K Baros	6/21/2017 21:51	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/19/2017 9:21					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56751

Sample Report Information

Sample ID:	S17171182J	Client ID:	BV-19	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR
Location: BV-19
Notes:

Batch No: 56751
Sampled: 6/20/2017 1:18 PM

Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	125	mg/L	EPA 300	K Baros	6/21/2017 22:29	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	325	mg/L	SM 2320 B		6/27/2017 11:06	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/27/2017 11:06	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	325	mg/L	SM 2320 B		6/27/2017 11:06	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.49	mg/L	EPA 300	K Baros	6/21/2017 22:29	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	6.94	SU	SM 4500-H+B	C Watts	6/20/2017 16:50					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	786	mg/L	SM2540C	C Watts	6/22/2017 16:15	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			6/29/2017 16:01					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	57	mg/L	EPA 300	K Baros	6/21/2017 22:29	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/19/2017 9:21					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56751

QA Summary Report

Parameter	ID	Result	Ref Value	Amt Added	LOQ	Qualifer	Control	Flag	Comments
Method Blank									
.- Chloride, IC	Q171862022	<1mg/L	0		1		1		Blank Acceptable.
6/21/2017 10:25									
Fluoride, IC	Q171862022	<0.25mg/L	0		0.25		0.25		Blank Acceptable.
6/21/2017 10:25									
Solids, Total Dissolved	Q171741139	<25mg/L	0		10		25		Blank Acceptable.
6/21/2017 16:30									
Solids, Total Dissolved	Q171771521	<25mg/L	0		10		25		Blank Acceptable.
6/22/2017 16:15									
Sulfate, IC	Q171862022	<1mg/L	0		1		1		Blank Acceptable.
6/21/2017 10:25									
Duplicate									
pH (Standard Units)	Q17174112D	7.13SU	7.11		2	0.3%	20		Duplicate RPD Acceptable.
6/20/2017 16:50									
Solids, Total Dissolved	Q171771523	4400mg/L	4340		10	1.4%	20		Duplicate RPD Acceptable.
6/22/2017 16:15									
Solids, Total Dissolved	Q171741140	356mg/L	356		10	0.0%	20		Duplicate RPD Acceptable.
6/21/2017 16:30									
Laboratory Control Standard									
.- Chloride, IC	Q171862026	25.8mg/L	25		1	103.2%	80 - 120		Standard Recovery Acceptable.
6/21/2017 11:03						3.1%	20		Standard RPD Acceptable.
Fluoride, IC	Q171862026	2.04mg/L	2		0.25	102.0%	80 - 120		Standard Recovery Acceptable.
6/21/2017 11:03						2.0%	20		Standard RPD Acceptable.
pH (Standard Units)	Q17174112C	7SU	7		2	100.0%	80 - 120		Standard Recovery Acceptable.
6/20/2017 16:50						0.0%	20		Standard RPD Acceptable.
Sulfate, IC	Q171862026	26.1mg/L	25		1	104.4%	80 - 120		Standard Recovery Acceptable.
6/21/2017 11:03						4.3%	20		Standard RPD Acceptable.
Matrix Spike									
.- Chloride, IC	Q171862027	61.8mg/L	64.9	25	1	87.6%	80 - 120		Spike Recovery Acceptable.
6/21/2017 15:30						4.9%	20		Spike RPD Acceptable.
Fluoride, IC	Q171862027	2.47mg/L	2.61	2	0.25	93.0%	80 - 120		Spike Recovery Acceptable.
6/21/2017 15:30						5.5%	20		Spike RPD Acceptable.
Sulfate, IC	Q171862027	66.5mg/L	69.9	25	1	86.4%	70 - 130		Spike Recovery Acceptable.
6/21/2017 15:30						5.0%	20		Spike RPD Acceptable.
Matrix Spike Dup									
.- Chloride, IC	Q17186202A	62mg/L	64.9	25	1	88.4%	80 - 120		Spike Recovery Acceptable.
6/21/2017 16:08						4.6%	20		Spike RPD Acceptable.
Fluoride, IC	Q17186202A	2.47mg/L	2.61	2	0.25	93.0%	80 - 120		Spike Recovery Acceptable.
6/21/2017 16:08						5.5%	20		Spike RPD Acceptable.
Sulfate, IC	Q17186202A	66.4mg/L	69.9	25	1	86.0%	70 - 130		Spike Recovery Acceptable.
6/21/2017 16:08						5.1%	20		Spike RPD Acceptable.

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56751

Flag and Qualifier Legend

Negative - Result Detected	***MDL = Method Detection Limit***	***DF = Dilution Factor***
Caution - Problem Detected	*LOQ = Limit of Quantitation*	***j = Analyte detected between MDL and LOQ***
Warning - Null Value	***S = surrogate standard out of limit***	***H = sample out of hold time***

MS, MSD, RPD- Failure may occur due to matrix interference, data released per QA plan

Wednesday, July 26, 2017 **B Environmental - LDMS QA Report Summary**

Note: THANK YOU!

DHL Analytical, Inc. **Date:** *03-Jul-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Lab Order: 1706261

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition and Standard Methods.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives except where noted in the following. For Total Metals Analysis, the recovery/RPD of Boron for the Serial Dilution, the Matrix Spike and Matrix Spike Duplicate (1706261-03 SD/MS/MSD) was above the method control limits. These are flagged accordingly in the QC Summary Report. This analyte was within method control limits in the associated LCS/Post Digestion Spike. No further corrective action was taken.

The Dissolved/Total Metals Analysis, the result of Dissolved Molybdenum for Sample BV-21 was slightly higher than the result of Total Molybdenum. The results were within acceptable analytical variation limits. No further corrective action was taken.

DHL Analytical, Inc.

Date: *03-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	Blank
Project:	Coleto Creek Power	**Lab ID:**	1706261-01
Project No:	CCR (56751)	**Alternate ID:**	S171711827
Lab Order:	1706261	**Collection Date:**	06/20/17 03:00 PM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	<0.00500	0.00500	0.0100		mg/L	1	06/27/17 05:31 PM
Dissolved Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	06/27/17 05:31 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **RO**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	06/29/17 03:15 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	06/29/17 03:15 PM
Barium	<0.00300	0.00300	0.0100		mg/L	1	06/29/17 03:15 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	06/29/17 03:15 PM
Boron	<0.0100	0.0100	0.0300		mg/L	1	06/30/17 02:53 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	06/29/17 03:15 PM
Calcium	<0.100	0.100	0.300		mg/L	1	06/29/17 03:15 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	06/29/17 03:15 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	06/29/17 03:15 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	06/29/17 03:15 PM
Lithium	<0.00500	0.00500	0.0100		mg/L	1	06/29/17 03:15 PM
Magnesium	<0.100	0.100	0.300		mg/L	1	06/29/17 03:15 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	06/29/17 03:15 PM
Potassium	<0.100	0.100	0.300		mg/L	1	06/29/17 03:15 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	06/29/17 03:15 PM
Sodium	0.334	0.100	0.300		mg/L	1	06/29/17 03:15 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	06/29/17 03:15 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **RO**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/27/17 11:01 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.29	1	06/27/17 09:08 AM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.29	1	06/27/17 09:08 AM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.29	1	06/27/17 09:08 AM
Alkalinity, Total (As CaCO3)	<20.0	20.0	20.0		mg/L @ pH 4.29	1	06/27/17 09:08 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *03-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	DUP
Project:	Coleto Creek Power	**Lab ID:**	1706261-02
Project No:	CCR (56751)	**Alternate ID:**	S17171182A
Lab Order:	1706261	**Collection Date:**	06/20/17
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.00641	0.00500	0.0100	J	mg/L	1	06/27/17 05:33 PM
Dissolved Molybdenum	0.00832	0.00200	0.00500		mg/L	1	06/27/17 05:33 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **RO**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	06/29/17 03:47 PM
Arsenic	0.00637	0.00200	0.00500		mg/L	1	06/29/17 03:47 PM
Barium	0.0512	0.00300	0.0100		mg/L	1	06/29/17 03:47 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	06/29/17 03:47 PM
Boron	0.572	0.0500	0.150		mg/L	5	06/30/17 02:55 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	06/29/17 03:47 PM
Calcium	75.5	0.500	1.50		mg/L	5	06/30/17 02:55 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	06/29/17 03:47 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	06/29/17 03:47 PM
Lead	0.000950	0.000300	0.00100	J	mg/L	1	06/29/17 03:47 PM
Lithium	0.00645	0.00500	0.0100	J	mg/L	1	06/29/17 03:47 PM
Magnesium	10.1	0.100	0.300		mg/L	1	06/29/17 03:47 PM
Molybdenum	0.00880	0.00200	0.00500		mg/L	1	06/29/17 03:47 PM
Potassium	0.911	0.100	0.300		mg/L	1	06/29/17 03:47 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	06/29/17 03:47 PM
Sodium	58.3	0.500	1.50		mg/L	5	06/30/17 02:55 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	06/29/17 03:47 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **RO**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/27/17 11:04 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	245	10.0	20.0		mg/L @ pH 4.51	1	06/27/17 09:17 AM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	06/27/17 09:17 AM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	06/27/17 09:17 AM
Alkalinity, Total (As CaCO3)	245	20.0	20.0		mg/L @ pH 4.51	1	06/27/17 09:17 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *03-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	BV-21
Project:	Coleto Creek Power	**Lab ID:**	1706261-03
Project No:	CCR (56751)	**Alternate ID:**	S17171182B
Lab Order:	1706261	**Collection Date:**	06/20/17 10:45 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.00513	0.00500	0.0100	J	mg/L	1	06/27/17 04:55 PM
Dissolved Molybdenum	0.00260	0.00200	0.00500	J	mg/L	1	06/27/17 04:55 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **RO**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	06/29/17 02:57 PM
Arsenic	0.121	0.00200	0.00500		mg/L	1	06/29/17 02:57 PM
Barium	0.101	0.00300	0.0100		mg/L	1	06/29/17 02:57 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	06/29/17 02:57 PM
Boron	0.642	0.0500	0.150		mg/L	5	06/30/17 02:50 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	06/29/17 02:57 PM
Calcium	77.0	0.500	1.50		mg/L	5	06/30/17 02:50 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	06/29/17 02:57 PM
Cobalt	0.00744	0.00300	0.00500		mg/L	1	06/29/17 02:57 PM
Lead	0.000685	0.000300	0.00100	J	mg/L	1	06/29/17 02:57 PM
Lithium	0.00547	0.00500	0.0100	J	mg/L	1	06/29/17 02:57 PM
Magnesium	8.32	0.100	0.300		mg/L	1	06/29/17 02:57 PM
Molybdenum	0.00243	0.00200	0.00500	J	mg/L	1	06/29/17 02:57 PM
Potassium	0.787	0.100	0.300		mg/L	1	06/29/17 02:57 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	06/29/17 02:57 PM
Sodium	59.7	0.500	1.50		mg/L	5	06/30/17 02:50 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	06/29/17 02:57 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **RO**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/27/17 11:06 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	240	10.0	20.0		mg/L @ pH 4.51	1	06/27/17 09:26 AM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	06/27/17 09:26 AM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	06/27/17 09:26 AM
Alkalinity, Total (As CaCO3)	240	20.0	20.0		mg/L @ pH 4.51	1	06/27/17 09:26 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *03-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	BV-22
Project:	Coleto Creek Power	**Lab ID:**	1706261-04
Project No:	CCR (56751)	**Alternate ID:**	S17171182C
Lab Order:	1706261	**Collection Date:**	06/20/17 09:35 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.00675	0.00500	0.0100	J	mg/L	1	06/27/17 05:35 PM
Dissolved Molybdenum	0.00828	0.00200	0.00500		mg/L	1	06/27/17 05:35 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **RO**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	06/29/17 03:49 PM
Arsenic	0.00630	0.00200	0.00500		mg/L	1	06/29/17 03:49 PM
Barium	0.0503	0.00300	0.0100		mg/L	1	06/29/17 03:49 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	06/29/17 03:49 PM
Boron	0.621	0.0500	0.150		mg/L	5	06/30/17 02:57 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	06/29/17 03:49 PM
Calcium	75.3	0.500	1.50		mg/L	5	06/30/17 02:57 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	06/29/17 03:49 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	06/29/17 03:49 PM
Lead	0.000861	0.000300	0.00100	J	mg/L	1	06/29/17 03:49 PM
Lithium	0.00836	0.00500	0.0100	J	mg/L	1	06/29/17 03:49 PM
Magnesium	10.3	0.100	0.300		mg/L	1	06/29/17 03:49 PM
Molybdenum	0.00853	0.00200	0.00500		mg/L	1	06/29/17 03:49 PM
Potassium	0.881	0.100	0.300		mg/L	1	06/29/17 03:49 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	06/29/17 03:49 PM
Sodium	59.0	0.500	1.50		mg/L	5	06/30/17 02:57 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	06/29/17 03:49 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **RO**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/27/17 11:22 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	246	10.0	20.0		mg/L @ pH 4.51	1	06/27/17 09:44 AM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	06/27/17 09:44 AM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	06/27/17 09:44 AM
Alkalinity, Total (As CaCO3)	246	20.0	20.0		mg/L @ pH 4.51	1	06/27/17 09:44 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *03-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	BV-15
Project:	Coleto Creek Power	**Lab ID:**	1706261-05
Project No:	CCR (56751)	**Alternate ID:**	S17171182D
Lab Order:	1706261	**Collection Date:**	06/20/17 11:20 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.00615	0.00500	0.0100	J	mg/L	1	06/27/17 05:37 PM
Dissolved Molybdenum	0.0189	0.00200	0.00500		mg/L	1	06/27/17 05:37 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **RO**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	06/29/17 03:51 PM
Arsenic	0.00901	0.00200	0.00500		mg/L	1	06/29/17 03:51 PM
Barium	0.0499	0.00300	0.0100		mg/L	1	06/29/17 03:51 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	06/29/17 03:51 PM
Boron	1.23	0.100	0.300		mg/L	10	06/30/17 02:59 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	06/29/17 03:51 PM
Calcium	64.7	1.00	3.00		mg/L	10	06/30/17 02:59 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	06/29/17 03:51 PM
Cobalt	0.0119	0.00300	0.00500		mg/L	1	06/29/17 03:51 PM
Lead	0.00457	0.000300	0.00100		mg/L	1	06/29/17 03:51 PM
Lithium	0.00739	0.00500	0.0100	J	mg/L	1	06/29/17 03:51 PM
Magnesium	8.61	0.100	0.300		mg/L	1	06/29/17 03:51 PM
Molybdenum	0.0195	0.00200	0.00500		mg/L	1	06/29/17 03:51 PM
Potassium	1.07	0.100	0.300		mg/L	1	06/29/17 03:51 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	06/29/17 03:51 PM
Sodium	75.6	1.00	3.00		mg/L	10	06/30/17 02:59 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	06/29/17 03:51 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **RO**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/27/17 11:24 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	198	10.0	20.0		mg/L @ pH 4.51	1	06/27/17 09:52 AM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	06/27/17 09:52 AM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	06/27/17 09:52 AM
Alkalinity, Total (As CaCO3)	198	20.0	20.0		mg/L @ pH 4.51	1	06/27/17 09:52 AM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
	C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
	E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
	RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *03-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-4
Project:	Coleto Creek Power	**Lab ID:**	1706261-06
Project No:	CCR (56751)	**Alternate ID:**	S17171182E
Lab Order:	1706261	**Collection Date:**	06/20/17 08:42 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.0168	0.00500	0.0100		mg/L	1	06/27/17 05:39 PM
Dissolved Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	06/27/17 05:39 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **RO**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	06/29/17 03:53 PM
Arsenic	0.00810	0.00200	0.00500		mg/L	1	06/29/17 03:53 PM
Barium	0.0596	0.00300	0.0100		mg/L	1	06/29/17 03:53 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	06/29/17 03:53 PM
Boron	0.254	0.0100	0.0300		mg/L	1	06/30/17 03:00 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	06/29/17 03:53 PM
Calcium	99.3	1.00	3.00		mg/L	10	06/30/17 06:18 PM
Chromium	0.00877	0.00200	0.00500		mg/L	1	06/29/17 03:53 PM
Cobalt	0.00843	0.00300	0.00500		mg/L	1	06/29/17 03:53 PM
Lead	0.000714	0.000300	0.00100	J	mg/L	1	06/29/17 03:53 PM
Lithium	0.0195	0.00500	0.0100		mg/L	1	06/29/17 03:53 PM
Magnesium	17.8	0.100	0.300		mg/L	1	06/29/17 03:53 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	06/29/17 03:53 PM
Potassium	1.33	0.100	0.300		mg/L	1	06/29/17 03:53 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	06/29/17 03:53 PM
Sodium	107	1.00	3.00		mg/L	10	06/30/17 06:18 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	06/29/17 03:53 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **RO**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/27/17 11:26 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	246	10.0	20.0		mg/L @ pH 4.51	1	06/27/17 10:01 AM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	06/27/17 10:01 AM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	06/27/17 10:01 AM
Alkalinity, Total (As CaCO3)	246	20.0	20.0		mg/L @ pH 4.51	1	06/27/17 10:01 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *03-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-8
Project:	Coleto Creek Power	**Lab ID:**	1706261-07
Project No:	CCR (56751)	**Alternate ID:**	S17171182F
Lab Order:	1706261	**Collection Date:**	06/20/17 10:11 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.0108	0.00500	0.0100		mg/L	1	06/27/17 05:41 PM
Dissolved Molybdenum	0.0163	0.00200	0.00500		mg/L	1	06/27/17 05:41 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **RO**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	06/29/17 03:54 PM
Arsenic	0.00885	0.00200	0.00500		mg/L	1	06/29/17 03:54 PM
Barium	0.0669	0.00300	0.0100		mg/L	1	06/29/17 03:54 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	06/29/17 03:54 PM
Boron	1.24	0.100	0.300		mg/L	10	06/30/17 03:02 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	06/29/17 03:54 PM
Calcium	86.5	1.00	3.00		mg/L	10	06/30/17 03:02 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	06/29/17 03:54 PM
Cobalt	0.0297	0.00300	0.00500		mg/L	1	06/29/17 03:54 PM
Lead	0.000422	0.000300	0.00100	J	mg/L	1	06/29/17 03:54 PM
Lithium	0.0121	0.00500	0.0100		mg/L	1	06/29/17 03:54 PM
Magnesium	12.8	0.100	0.300		mg/L	1	06/29/17 03:54 PM
Molybdenum	0.0171	0.00200	0.00500		mg/L	1	06/29/17 03:54 PM
Potassium	0.945	0.100	0.300		mg/L	1	06/29/17 03:54 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	06/29/17 03:54 PM
Sodium	86.8	1.00	3.00		mg/L	10	06/30/17 03:02 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	06/29/17 03:54 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **RO**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/27/17 11:29 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	262	10.0	20.0		mg/L @ pH 4.52	1	06/27/17 10:11 AM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	06/27/17 10:11 AM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	06/27/17 10:11 AM
Alkalinity, Total (As CaCO3)	262	20.0	20.0		mg/L @ pH 4.52	1	06/27/17 10:11 AM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
	C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
	E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
	RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *03-Jul-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (56751)
Lab Order: 1706261

Client Sample ID: BV-1
Lab ID: 1706261-08
Alternate ID: S17171182G
Collection Date: 06/20/17 02:15 PM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.0149	0.00500	0.0100		mg/L	1	06/27/17 05:43 PM
Dissolved Molybdenum	0.00472	0.00200	0.00500	J	mg/L	1	06/27/17 05:43 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **RO**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	06/29/17 03:56 PM
Arsenic	0.0101	0.00200	0.00500		mg/L	1	06/29/17 03:56 PM
Barium	0.0495	0.00300	0.0100		mg/L	1	06/29/17 03:56 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	06/29/17 03:56 PM
Boron	1.29	0.100	0.300		mg/L	10	06/30/17 03:04 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	06/29/17 03:56 PM
Calcium	73.1	1.00	3.00		mg/L	10	06/30/17 03:04 PM
Chromium	0.00946	0.00200	0.00500		mg/L	1	06/29/17 03:56 PM
Cobalt	0.395	0.00300	0.00500		mg/L	1	06/29/17 03:56 PM
Lead	0.00397	0.000300	0.00100		mg/L	1	06/29/17 03:56 PM
Lithium	0.0168	0.00500	0.0100		mg/L	1	06/29/17 03:56 PM
Magnesium	11.4	0.100	0.300		mg/L	1	06/29/17 03:56 PM
Molybdenum	0.00507	0.00200	0.00500		mg/L	1	06/29/17 03:56 PM
Potassium	0.522	0.100	0.300		mg/L	1	06/29/17 03:56 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	06/29/17 03:56 PM
Sodium	256	5.00	15.0		mg/L	50	06/30/17 06:20 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	06/29/17 03:56 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **RO**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/27/17 11:31 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	399	10.0	20.0		mg/L @ pH 4.53	1	06/27/17 10:25 AM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	06/27/17 10:25 AM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	06/27/17 10:25 AM
Alkalinity, Total (As CaCO3)	399	20.0	20.0		mg/L @ pH 4.53	1	06/27/17 10:25 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *03-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	BV-5
Project:	Coleto Creek Power	**Lab ID:**	1706261-09
Project No:	CCR (56751)	**Alternate ID:**	S17171182H
Lab Order:	1706261	**Collection Date:**	06/20/17 02:43 PM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.0172	0.00500	0.0100		mg/L	1	06/27/17 05:45 PM
Dissolved Molybdenum	0.0106	0.00200	0.00500		mg/L	1	06/27/17 05:45 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **RO**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	06/29/17 03:58 PM
Arsenic	0.00841	0.00200	0.00500		mg/L	1	06/29/17 03:58 PM
Barium	0.0401	0.00300	0.0100		mg/L	1	06/29/17 03:58 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	06/29/17 03:58 PM
Boron	1.02	0.100	0.300		mg/L	10	06/30/17 03:06 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	06/29/17 03:58 PM
Calcium	90.7	1.00	3.00		mg/L	10	06/30/17 03:06 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	06/29/17 03:58 PM
Cobalt	0.0499	0.00300	0.00500		mg/L	1	06/29/17 03:58 PM
Lead	0.000832	0.000300	0.00100	J	mg/L	1	06/29/17 03:58 PM
Lithium	0.0208	0.00500	0.0100		mg/L	1	06/29/17 03:58 PM
Magnesium	16.2	0.100	0.300		mg/L	1	06/29/17 03:58 PM
Molybdenum	0.0114	0.00200	0.00500		mg/L	1	06/29/17 03:58 PM
Potassium	0.179	0.100	0.300	J	mg/L	1	06/29/17 03:58 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	06/29/17 03:58 PM
Sodium	173	1.00	3.00		mg/L	10	06/30/17 03:06 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	06/29/17 03:58 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **RO**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/27/17 11:33 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	354	10.0	20.0		mg/L @ pH 4.52	1	06/27/17 10:39 AM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	06/27/17 10:39 AM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	06/27/17 10:39 AM
Alkalinity, Total (As CaCO3)	354	20.0	20.0		mg/L @ pH 4.52	1	06/27/17 10:39 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *03-Jul-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (56751)
Lab Order: 1706261

Client Sample ID: BV-10
Lab ID: 1706261-10
Alternate ID: S171711821
Collection Date: 06/20/17 01:44 PM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.0102	0.00500	0.0100		mg/L	1	06/27/17 05:47 PM
Dissolved Molybdenum	0.00825	0.00200	0.00500		mg/L	1	06/27/17 05:47 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **RO**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	06/29/17 04:00 PM
Arsenic	0.0130	0.00200	0.00500		mg/L	1	06/29/17 04:00 PM
Barium	0.0520	0.00300	0.0100		mg/L	1	06/29/17 04:00 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	06/29/17 04:00 PM
Boron	1.07	0.100	0.300		mg/L	10	06/30/17 03:08 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	06/29/17 04:00 PM
Calcium	44.0	1.00	3.00		mg/L	10	06/30/17 03:08 PM
Chromium	0.00398	0.00200	0.00500	J	mg/L	1	06/29/17 04:00 PM
Cobalt	0.215	0.00300	0.00500		mg/L	1	06/29/17 04:00 PM
Lead	0.00526	0.000300	0.00100		mg/L	1	06/29/17 04:00 PM
Lithium	0.0108	0.00500	0.0100		mg/L	1	06/29/17 04:00 PM
Magnesium	7.03	0.100	0.300		mg/L	1	06/29/17 04:00 PM
Molybdenum	0.00837	0.00200	0.00500		mg/L	1	06/29/17 04:00 PM
Potassium	0.697	0.100	0.300		mg/L	1	06/29/17 04:00 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	06/29/17 04:00 PM
Sodium	171	1.00	3.00		mg/L	10	06/30/17 03:08 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	06/29/17 04:00 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **RO**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/27/17 11:36 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	292	10.0	20.0		mg/L @ pH 4.53	1	06/27/17 10:54 AM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	06/27/17 10:54 AM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	06/27/17 10:54 AM
Alkalinity, Total (As CaCO3)	292	20.0	20.0		mg/L @ pH 4.53	1	06/27/17 10:54 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *03-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	BV-19
Project:	Coleto Creek Power	**Lab ID:**	1706261-11
Project No:	CCR (56751)	**Alternate ID:**	S17171182J
Lab Order:	1706261	**Collection Date:**	06/20/17 01:18 PM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	0.0130	0.00500	0.0100		mg/L	1	06/27/17 05:49 PM
Dissolved Molybdenum	0.00484	0.00200	0.00500	J	mg/L	1	06/27/17 05:49 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **RO**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	06/29/17 04:01 PM
Arsenic	0.00822	0.00200	0.00500		mg/L	1	06/29/17 04:01 PM
Barium	0.0954	0.00300	0.0100		mg/L	1	06/29/17 04:01 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	06/29/17 04:01 PM
Boron	0.812	0.0500	0.150		mg/L	5	06/30/17 03:33 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	06/29/17 04:01 PM
Calcium	115	1.00	3.00		mg/L	10	06/30/17 03:38 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	06/29/17 04:01 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	06/29/17 04:01 PM
Lead	0.000429	0.000300	0.00100	J	mg/L	1	06/29/17 04:01 PM
Lithium	0.0161	0.00500	0.0100		mg/L	1	06/29/17 04:01 PM
Magnesium	24.1	0.100	0.300		mg/L	1	06/29/17 04:01 PM
Molybdenum	0.00508	0.00200	0.00500		mg/L	1	06/29/17 04:01 PM
Potassium	0.632	0.100	0.300		mg/L	1	06/29/17 04:01 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	06/29/17 04:01 PM
Sodium	89.3	1.00	3.00		mg/L	10	06/30/17 03:38 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	06/29/17 04:01 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **RO**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/27/17 11:38 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	325	10.0	20.0		mg/L @ pH 4.52	1	06/27/17 11:06 AM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	06/27/17 11:06 AM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	06/27/17 11:06 AM
Alkalinity, Total (As CaCO3)	325	20.0	20.0		mg/L @ pH 4.52	1	06/27/17 11:06 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *03-Jul-17*

CLIENT: B-Environmental
Work Order: 1706261
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_170627B

The QC data in batch 81116 applies to the following samples: 1706261-01A, 1706261-02A, 1706261-03A, 1706261-04A, 1706261-05A, 1706261-06A, 1706261-07A, 1706261-08A, 1706261-09A, 1706261-10A, 1706261-11A

Sample ID **MB-81116** Batch ID: **81116** TestNo: **SW7470A** Units: **mg/L**
SampType: **MBLK** Run ID: **CETAC2_HG_170627** Analysis Date: **6/27/2017 10:39:00 AM** Prep Date: **6/26/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.0000800	0.000200								

Sample ID **LCS-81116** Batch ID: **81116** TestNo: **SW7470A** Units: **mg/L**
SampType: **LCS** Run ID: **CETAC2_HG_170627** Analysis Date: **6/27/2017 10:41:16 AM** Prep Date: **6/26/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00207	0.000200	0.00200	0	104	85	115			

Sample ID **LCSD-81116** Batch ID: **81116** TestNo: **SW7470A** Units: **mg/L**
SampType: **LCSD** Run ID: **CETAC2_HG_170627** Analysis Date: **6/27/2017 10:43:32 AM** Prep Date: **6/26/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00206	0.000200	0.00200	0	103	85	115	0.484	15	

Sample ID **1706261-03A SD** Batch ID: **81116** TestNo: **SW7470A** Units: **mg/L**
SampType: **SD** Run ID: **CETAC2_HG_170627** Analysis Date: **6/27/2017 11:08:33 AM** Prep Date: **6/26/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.000400	0.00100	0	0				0	10	

Sample ID **1706261-03A PDS** Batch ID: **81116** TestNo: **SW7470A** Units: **mg/L**
SampType: **PDS** Run ID: **CETAC2_HG_170627** Analysis Date: **6/27/2017 11:10:50 AM** Prep Date: **6/26/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00244	0.000200	0.00250	0	97.6	85	115			

Sample ID **1706261-03A MS** Batch ID: **81116** TestNo: **SW7470A** Units: **mg/L**
SampType: **MS** Run ID: **CETAC2_HG_170627** Analysis Date: **6/27/2017 11:13:07 AM** Prep Date: **6/26/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00198	0.000200	0.00200	0	99.0	80	120			

Sample ID **1706261-03A MSD** Batch ID: **81116** TestNo: **SW7470A** Units: **mg/L**
SampType: **MSD** Run ID: **CETAC2_HG_170627** Analysis Date: **6/27/2017 11:15:24 AM** Prep Date: **6/26/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00193	0.000200	0.00200	0	96.5	80	120	2.56	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706261
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170627B

The QC data in batch 81080 applies to the following samples: 1706261-01B, 1706261-02B, 1706261-03B, 1706261-04B, 1706261-05B, 1706261-06B, 1706261-07B, 1706261-08B, 1706261-09B, 1706261-10B, 1706261-11B

Sample ID **MB-81080** Batch ID: **81080** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS4_170627B** Analysis Date: **6/27/2017 4:47:00 PM** Prep Date: **6/23/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.00500	0.0100								
Molybdenum	<0.00200	0.00500								

Sample ID **LCS-81080** Batch ID: **81080** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS4_170627B** Analysis Date: **6/27/2017 4:49:00 PM** Prep Date: **6/23/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.198	0.0100	0.200	0	98.9	80	120			
Molybdenum	0.194	0.00500	0.200	0	96.8	80	120			

Sample ID **LCSD-81080** Batch ID: **81080** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS4_170627B** Analysis Date: **6/27/2017 4:51:00 PM** Prep Date: **6/23/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.200	0.0100	0.200	0	100	80	120	1.31	15	
Molybdenum	0.198	0.00500	0.200	0	99.1	80	120	2.34	15	

Sample ID **1706261-03B SD** Batch ID: **81080** TestNo: **SW6020A** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS4_170627B** Analysis Date: **6/27/2017 4:57:00 PM** Prep Date: **6/23/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.0250	0.0500	0	0.00513				0	10	
Molybdenum	<0.0100	0.0250	0	0.00260				0	10	

Sample ID **1706261-03B PDS** Batch ID: **81080** TestNo: **SW6020A** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS4_170627B** Analysis Date: **6/27/2017 5:11:00 PM** Prep Date: **6/23/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.199	0.0100	0.200	0.00513	96.9	80	120			
Molybdenum	0.196	0.00500	0.200	0.00260	96.6	80	120			

Sample ID **1706261-03B MS** Batch ID: **81080** TestNo: **SW6020A** Units: **mg/L**
SampType: **MS** Run ID: **ICP-MS4_170627B** Analysis Date: **6/27/2017 5:13:00 PM** Prep Date: **6/23/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Lithium	0.198	0.0100	0.200	0.00513	96.3	80	120			
Dissolved Molybdenum	0.199	0.00500	0.200	0.00260	98.4	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706261
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170627B

Sample ID	1706261-03B MSD	Batch ID:	81080	TestNo:	SW6020A	Units:	mg/L
SampType:	MSD	Run ID:	ICP-MS4_170627B	Analysis Date:	6/27/2017 5:15:00 PM	Prep Date:	6/23/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Lithium	0.195	0.0100	0.200	0.00513	95.2	80	120	1.16	15	
Dissolved Molybdenum	0.197	0.00500	0.200	0.00260	97.1	80	120	1.35	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706261
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170629E

The QC data in batch 81112 applies to the following samples: 1706261-01A, 1706261-02A, 1706261-03A, 1706261-04A, 1706261-05A, 1706261-06A, 1706261-07A, 1706261-08A, 1706261-09A, 1706261-10A, 1706261-11A

Sample ID **MB-81112** Batch ID: **81112** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS5_170629E** Analysis Date: **6/29/2017 2:50:00 PM** Prep Date: **6/26/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.000800	0.00250								
Arsenic	<0.00200	0.00500								
Barium	<0.00300	0.0100								
Beryllium	<0.000300	0.00100								
Cadmium	<0.000300	0.00100								
Calcium	<0.100	0.300								
Chromium	<0.00200	0.00500								
Cobalt	<0.00300	0.00500								
Lead	<0.000300	0.00100								
Lithium	<0.00500	0.0100								
Magnesium	<0.100	0.300								
Molybdenum	<0.00200	0.00500								
Potassium	<0.100	0.300								
Selenium	<0.00200	0.00500								
Sodium	<0.100	0.300								
Thallium	<0.000500	0.00150								

Sample ID **LCS-81112** Batch ID: **81112** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS5_170629E** Analysis Date: **6/29/2017 2:51:00 PM** Prep Date: **6/26/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.197	0.00250	0.200	0	98.3	80	120			
Arsenic	0.198	0.00500	0.200	0	99.0	80	120			
Barium	0.199	0.0100	0.200	0	99.6	80	120			
Beryllium	0.204	0.00100	0.200	0	102	80	120			
Cadmium	0.198	0.00100	0.200	0	99.2	80	120			
Calcium	4.99	0.300	5.00	0	99.8	80	120			
Chromium	0.200	0.00500	0.200	0	99.9	80	120			
Cobalt	0.204	0.00500	0.200	0	102	80	120			
Lead	0.197	0.00100	0.200	0	98.5	80	120			
Lithium	0.213	0.0100	0.200	0	106	80	120			
Magnesium	5.11	0.300	5.00	0	102	80	120			
Molybdenum	0.195	0.00500	0.200	0	97.3	80	120			
Potassium	4.90	0.300	5.00	0	98.1	80	120			
Selenium	0.196	0.00500	0.200	0	97.9	80	120			
Sodium	5.09	0.300	5.00	0	102	80	120			
Thallium	0.198	0.00150	0.200	0	99.0	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706261
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170629E

Sample ID	LCSD-81112	Batch ID:	81112	TestNo:	SW6020A	Units:	mg/L
SampType:	LCSD	Run ID:	ICP-MS5_170629E	Analysis Date:	6/29/2017 2:53:00 PM	Prep Date:	6/26/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.202	0.00250	0.200	0	101	80	120	2.92	15	
Arsenic	0.200	0.00500	0.200	0	99.8	80	120	0.743	15	
Barium	0.204	0.0100	0.200	0	102	80	120	2.40	15	
Beryllium	0.205	0.00100	0.200	0	103	80	120	0.656	15	
Cadmium	0.205	0.00100	0.200	0	102	80	120	3.12	15	
Calcium	4.99	0.300	5.00	0	99.8	80	120	0.048	15	
Chromium	0.201	0.00500	0.200	0	100	80	120	0.406	15	
Cobalt	0.204	0.00500	0.200	0	102	80	120	0.019	15	
Lead	0.197	0.00100	0.200	0	98.7	80	120	0.239	15	
Lithium	0.213	0.0100	0.200	0	106	80	120	0.080	15	
Magnesium	5.03	0.300	5.00	0	101	80	120	1.50	15	
Molybdenum	0.201	0.00500	0.200	0	101	80	120	3.27	15	
Potassium	4.86	0.300	5.00	0	97.2	80	120	0.954	15	
Selenium	0.199	0.00500	0.200	0	99.3	80	120	1.44	15	
Sodium	5.04	0.300	5.00	0	101	80	120	0.985	15	
Thallium	0.197	0.00150	0.200	0	98.6	80	120	0.453	15	

Sample ID	1706261-03A SD	Batch ID:	81112	TestNo:	SW6020A	Units:	mg/L
SampType:	SD	Run ID:	ICP-MS5_170629E	Analysis Date:	6/29/2017 2:59:00 PM	Prep Date:	6/26/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.00400	0.0125	0	0				0	10	
Arsenic	0.120	0.0250	0	0.121				0.934	10	
Barium	0.0996	0.0500	0	0.101				1.77	10	
Beryllium	<0.00150	0.00500	0	0				0	10	
Cadmium	<0.00150	0.00500	0	0				0	10	
Chromium	<0.0100	0.0250	0	0				0	10	
Cobalt	<0.0150	0.0250	0	0.00744				0	10	
Lead	<0.00150	0.00500	0	0.000685				0	10	
Lithium	<0.0250	0.0500	0	0.00547				0	10	
Magnesium	8.12	1.50	0	8.32				2.41	10	
Molybdenum	<0.0100	0.0250	0	0.00243				0	10	
Potassium	0.709	1.50	0	0.787				10.4	10	
Selenium	<0.0100	0.0250	0	0				0	10	
Thallium	<0.00250	0.00750	0	0				0	10	

Sample ID	1706261-03A PDS	Batch ID:	81112	TestNo:	SW6020A	Units:	mg/L
SampType:	PDS	Run ID:	ICP-MS5_170629E	Analysis Date:	6/29/2017 3:16:00 PM	Prep Date:	6/26/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.207	0.00250	0.200	0	103	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706261
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170629E

Sample ID 1706261-03A PDS	Batch ID: 81112	TestNo: SW6020A	Units: mg/L
SampType: PDS	Run ID: ICP-MS5_170629E	Analysis Date: 6/29/2017 3:16:00 PM	Prep Date: 6/26/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.309	0.00500	0.200	0.121	93.8	80	120			
Barium	0.307	0.0100	0.200	0.101	103	80	120			
Beryllium	0.213	0.00100	0.200	0	107	80	120			
Cadmium	0.209	0.00100	0.200	0	105	80	120			
Chromium	0.209	0.00500	0.200	0	105	80	120			
Cobalt	0.209	0.00500	0.200	0.00744	101	80	120			
Lead	0.197	0.00100	0.200	0.000685	98.2	80	120			
Lithium	0.225	0.0100	0.200	0.00547	110	80	120			
Magnesium	12.7	0.300	5.00	8.32	87.1	80	120			
Molybdenum	0.204	0.00500	0.200	0.00243	101	80	120			
Potassium	5.41	0.300	5.00	0.787	92.4	80	120			
Selenium	0.189	0.00500	0.200	0	94.3	80	120			
Thallium	0.197	0.00150	0.200	0	98.5	80	120			

Sample ID 1706261-03A MS	Batch ID: 81112	TestNo: SW6020A	Units: mg/L
SampType: MS	Run ID: ICP-MS5_170629E	Analysis Date: 6/29/2017 3:18:00 PM	Prep Date: 6/26/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.206	0.00250	0.200	0	103	80	120			
Arsenic	0.322	0.00500	0.200	0.121	101	80	120			
Barium	0.313	0.0100	0.200	0.101	106	80	120			
Beryllium	0.213	0.00100	0.200	0	106	80	120			
Cadmium	0.207	0.00100	0.200	0	103	80	120			
Calcium	76.9	0.300	5.00	71.4	109	80	120			
Chromium	0.203	0.00500	0.200	0	102	80	120			
Cobalt	0.208	0.00500	0.200	0.00744	100	80	120			
Lead	0.198	0.00100	0.200	0.000685	98.6	80	120			
Lithium	0.227	0.0100	0.200	0.00547	111	80	120			
Magnesium	13.3	0.300	5.00	8.32	99.8	80	120			
Molybdenum	0.210	0.00500	0.200	0.00243	104	80	120			
Potassium	5.59	0.300	5.00	0.787	96.0	80	120			
Selenium	0.192	0.00500	0.200	0	96.1	80	120			
Sodium	64.1	0.300	5.00	58.6	110	80	120			
Thallium	0.197	0.00150	0.200	0	98.7	80	120			

Sample ID 1706261-03A MSD	Batch ID: 81112	TestNo: SW6020A	Units: mg/L
SampType: MSD	Run ID: ICP-MS5_170629E	Analysis Date: 6/29/2017 3:20:00 PM	Prep Date: 6/26/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.208	0.00250	0.200	0	104	80	120	0.932	15	
Arsenic	0.321	0.00500	0.200	0.121	100	80	120	0.311	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706261
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170629E

Sample ID **1706261-03A MSD** Batch ID: **81112** TestNo: **SW6020A** Units: **mg/L**
SampType: **MSD** Run ID: **ICP-MS5_170629E** Analysis Date: **6/29/2017 3:20:00 PM** Prep Date: **6/26/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.316	0.0100	0.200	0.101	107	80	120	0.817	15	
Beryllium	0.216	0.00100	0.200	0	108	80	120	1.49	15	
Cadmium	0.209	0.00100	0.200	0	104	80	120	0.947	15	
Calcium	76.6	0.300	5.00	71.4	104	80	120	0.368	15	
Chromium	0.211	0.00500	0.200	0	105	80	120	3.62	15	
Cobalt	0.209	0.00500	0.200	0.00744	101	80	120	0.346	15	
Lead	0.197	0.00100	0.200	0.000685	98.1	80	120	0.502	15	
Lithium	0.236	0.0100	0.200	0.00547	115	80	120	3.88	15	
Magnesium	13.4	0.300	5.00	8.32	102	80	120	0.800	15	
Molybdenum	0.210	0.00500	0.200	0.00243	104	80	120	0.245	15	
Potassium	5.60	0.300	5.00	0.787	96.3	80	120	0.307	15	
Selenium	0.192	0.00500	0.200	0	96.1	80	120	0.097	15	
Sodium	64.3	0.300	5.00	58.6	115	80	120	0.373	15	
Thallium	0.197	0.00150	0.200	0	98.3	80	120	0.425	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706261
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170630B

The QC data in batch 81112 applies to the following samples: 1706261-01A, 1706261-02A, 1706261-03A, 1706261-04A, 1706261-05A, 1706261-06A, 1706261-07A, 1706261-08A, 1706261-09A, 1706261-10A, 1706261-11A

Sample ID MB-81112	Batch ID: 81112	TestNo: SW6020A	Units: mg/L
SampType: MBLK	Run ID: ICP-MS5_170630B	Analysis Date: 6/30/2017 2:43:00 PM	Prep Date: 6/26/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	<0.0100	0.0300								

Sample ID LCS-81112	Batch ID: 81112	TestNo: SW6020A	Units: mg/L
SampType: LCS	Run ID: ICP-MS5_170630B	Analysis Date: 6/30/2017 2:45:00 PM	Prep Date: 6/26/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.195	0.0300	0.200	0	97.3	80	120			

Sample ID LCSD-81112	Batch ID: 81112	TestNo: SW6020A	Units: mg/L
SampType: LCSD	Run ID: ICP-MS5_170630B	Analysis Date: 6/30/2017 2:46:00 PM	Prep Date: 6/26/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.201	0.0300	0.200	0	101	80	120	3.28	15	

Sample ID 1706261-03A SD	Batch ID: 81112	TestNo: SW6020A	Units: mg/L
SampType: SD	Run ID: ICP-MS5_170630B	Analysis Date: 6/30/2017 2:52:00 PM	Prep Date: 6/26/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.801	0.750	0	0.642				22.0	10	R
Calcium	77.2	7.50	0	77.0				0.303	10	
Sodium	60.3	7.50	0	59.7				0.995	10	

Sample ID 1706261-03A PDS	Batch ID: 81112	TestNo: SW6020A	Units: mg/L
SampType: PDS	Run ID: ICP-MS5_170630B	Analysis Date: 6/30/2017 3:09:00 PM	Prep Date: 6/26/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	1.70	0.150	1.00	0.642	106	80	120			
Calcium	103	1.50	25.0	77.0	104	80	120			
Sodium	84.9	1.50	25.0	59.7	101	80	120			

Sample ID 1706261-03A MS	Batch ID: 81112	TestNo: SW6020A	Units: mg/L
SampType: MS	Run ID: ICP-MS5_170630B	Analysis Date: 6/30/2017 3:11:00 PM	Prep Date: 6/26/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.896	0.150	0.200	0.642	127	80	120			S

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706261
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170630B

Sample ID	1706261-03A MSD	Batch ID:	81112	TestNo:	SW6020A	Units:	mg/L
SampType:	MSD	Run ID:	ICP-MS5_170630B	Analysis Date:	6/30/2017 3:13:00 PM	Prep Date:	6/26/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.909	0.150	0.200	0.642	134	80	120	1.48	15	S

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706261
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_170627A

The QC data in batch 81132 applies to the following samples: 1706261-01C, 1706261-02C, 1706261-03C, 1706261-04C, 1706261-05C, 1706261-06C, 1706261-07C, 1706261-08C, 1706261-09C, 1706261-10C, 1706261-11C

Sample ID **MB-81132** Batch ID: **81132** TestNo: **M2320 B** Units: **mg/L @ pH 4.27**
SampType: **MBLK** Run ID: **TITRATOR_170627A** Analysis Date: **6/27/2017 8:13:00 AM** Prep Date: **6/27/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0								
Alkalinity, Total (As CaCO3)	<20.0	20.0								

Sample ID **LCS-81132** Batch ID: **81132** TestNo: **M2320 B** Units: **mg/L @ pH 4.14**
SampType: **LCS** Run ID: **TITRATOR_170627A** Analysis Date: **6/27/2017 8:26:00 AM** Prep Date: **6/27/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	52.9	20.0	50.00	0	106	74	129			

Sample ID **1706261-03C-DUP** Batch ID: **81132** TestNo: **M2320 B** Units: **mg/L @ pH 4.52**
SampType: **DUP** Run ID: **TITRATOR_170627A** Analysis Date: **6/27/2017 9:35:00 AM** Prep Date: **6/27/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	239	20.0	0	240.3				0.626	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	239	20.0	0	240.3				0.626	20	

Sample ID **1706277-06C-DUP** Batch ID: **81132** TestNo: **M2320 B** Units: **mg/L @ pH 4.52**
SampType: **DUP** Run ID: **TITRATOR_170627A** Analysis Date: **6/27/2017 12:04:00 PM** Prep Date: **6/27/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	281	20.0	0	286.2				1.98	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	281	20.0	0	286.2				1.98	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

2609 North River Road, Port Allen, Louisiana 70767
(800) 401-4277 -- FAX (225) 381-2996

ARS International, LLC

Laboratory Analysis Report

ARS1-17-01844

Prepared for:

B-Environmental

Kevin Baros
1606 East Brazos Street
Suite D
Victoria, TX 77901

dbenviro@suddenlinkmail.com; cbenviro@suddenlinkmail.com
swbenviro@suddenlinkmail.com

Phone: 361-572-8224
Fax: 361-572-4115

Project Manager Review

Management Review

Notes: ARS International, LLC assumes no liability for the use or the interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

Contact Person: Questions regarding this analytical report should be addressed to:

Project Manager

ProjectManagers@amrad.com

Phone: 225.381.2991
Fax: 225.381.2996

LELAP Cert# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01844
Client Sample ID: S171711827 (BATCH 56751)
Sample Collection Date: 06/20/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01844-001
Date Received: 06/23/17
Report Date: 07/21/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	-0.017	0.061	0.153	0.057	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/14/17 7:39	CTRAMEL	103%
Ra-228	0.135	0.658	1.166	0.542	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/07/17 12:11	CTRAMEL	95%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01844
Client Sample ID: S17171182A (BATCH 56751)
Sample Collection Date: 06/20/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01844-002
Date Received: 06/23/17
Report Date: 07/21/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.208	0.131	0.162	0.063	NP		pCi/L	ARS-010/EPA 903.0/904.0	07/14/17 7:40	CTRAMEL	99%
Ra-228	0.326	0.647	1.114	0.516	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/07/17 12:11	CTRAMEL	89%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01844
Client Sample ID: S17171182B (BATCH 56751)
Sample Collection Date: 06/20/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01844-003
Date Received: 06/23/17
Report Date: 07/21/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.263	0.141	0.149	0.056	NP		pCi/L	ARS-010/EPA 903.0/904.0	07/14/17 7:40	CTRAMEL	99%
Ra-228	1.409	0.793	1.158	0.536	NP		pCi/L	ARS-010/EPA 903.0/904.0	07/07/17 12:11	CTRAMEL	89%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01844
Client Sample ID: S17171182C (BATCH 56751)
Sample Collection Date: 06/20/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01844-004
Date Received: 06/23/17
Report Date: 07/21/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	-0.025	0.090	0.195	0.081	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/14/17 7:40	CTRAMEL	102%
Ra-228	0.945	0.753	1.190	0.555	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/07/17 12:11	CTRAMEL	97%

Project Manager Review

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01844
Client Sample ID: S17171182D (BATCH S6751)
Sample Collection Date: 06/20/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01844-005
Date Received: 06/23/17
Report Date: 07/21/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.295	0.166	0.202	0.082	NP		pCi/L	ARS-010/EPA 903.0/904.0	07/14/17 7:39	CTRAMEL	96%
Ra-228	0.577	0.738	1.232	0.572	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/07/17 12:11	CTRAMEL	87%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01844
Client Sample ID: S17171182E (BATCH 56751)
Sample Collection Date: 06/20/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01844-006
Date Received: 06/23/17
Report Date: 07/21/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.223	0.151	0.197	0.078	NP		pCi/L	ARS-010/EPA 903.0/904.0	07/14/17 7:39	CTRAMEL	92%
Ra-228	0.320	0.682	1.177	0.546	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/07/17 12:11	CTRAMEL	89%

Project Manager Review

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01845
Client Sample ID: S17171182F (BATCH 56751)
Sample Collection Date: 06/20/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01845-001
Date Received: 06/23/17
Report Date: 07/21/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.254	0.139	0.149	0.056	NP		pCi/L	ARS-010/EPA 903.0/904.0	07/14/17 7:39	CTRAMEL	98%
Ra-228	0.284	0.672	1.166	0.540	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/07/17 12:11	CTRAMEL	104%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01845
Client Sample ID: S17171182G (BATCH 56751)
Sample Collection Date: 06/20/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01845-002
Date Received: 06/23/17
Report Date: 07/21/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.201	0.131	0.159	0.060	NP		pCi/L	ARS-010/EPA 903.0/904.0	07/19/17 9:21	SCAUSEY	106%
Ra-228	1.457	0.795	1.152	0.534	NP		pCi/L	ARS-010/EPA 903.0/904.0	07/12/17 12:19	SCAUSEY	111%

Project Manager Review

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01845
Client Sample ID: S17171182H (BATCH 56751)
Sample Collection Date: 06/20/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01845-003
Date Received: 06/23/17
Report Date: 07/21/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.266	0.142	0.154	0.059	NP		pCi/L	ARS-010/EPA 903.0/904.0	07/19/17 9:21	SCAUSEY	106%
Ra-228	0.226	0.603	1.053	0.487	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/12/17 12:19	SCAUSEY	106%

Project Manager Review

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01845
Client Sample ID: S17171182I (BATCH 56751)
Sample Collection Date: 06/20/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01845-004
Date Received: 06/23/17
Report Date: 07/21/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.178	0.116	0.137	0.051	NP		pCi/L	ARS-010/EPA 903.0/904.0	07/19/17 9:21	SCAUSEY	109%
Ra-228	0.484	0.642	1.075	0.496	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/12/17 12:19	SCAUSEY	109%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01845
Client Sample ID: S171711821 (BATCH 56751)
Sample Collection Date: 06/20/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01845-005
Date Received: 06/23/17
Report Date: 07/21/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.739	0.237	0.180	0.074	NP		pCi/L	ARS-010/EPA 903.0/904.0	07/19/17 9:21	SCAUSEY	107%
Ra-228	1.188	0.800	1.229	0.573	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/12/17 12:19	SCAUSEY	104%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

INTERNATIONAL

QC Results Report

Sample Delivery Group: ARS1-17-01844

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-01337	LCS	RA-226	30.462	4.899	0.098	27.531	N/A	pCi/L	ARS-010/EPA 903	7/14/17 9:39	CT	111	75%-125%
ARS1-B17-01337	LCS	RA-228	37.364	6.211	1.045	39.784	N/A	pCi/L	ARS-010/EPA 904	7/7/17 14:10	CT	94	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-01337	MBL	RA-226	0.145	0.081	0.091	NA		pCi/L	ARS-010/EPA 903	7/14/17 9:39	CT
ARS1-B17-01337	MBL	RA-228	0.335	0.365	0.599	NA	U	pCi/L	ARS-010/EPA 904	7/7/17 14:10	CT

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-01337	LCSD	RA-226	30.462	4.899	32.113	5.167	N/A	pCi/L	ARS-010/EPA 903	7/14/17 9:39	CT	0.16	< 1
ARS1-B17-01337	LCSD	RA-228	37.364	6.211	37.098	6.169	N/A	pCi/L	ARS-010/EPA 904	7/7/17 14:10	CT	0.02	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-01337	LCSD	RA-226	30.462	4.899	32.113	5.167	N/A	pCi/L	ARS-010/EPA 903	7/14/17 9:39	CT	0.23	< 3
ARS1-B17-01337	LCSD	RA-228	37.364	6.211	37.098	6.169	N/A	pCi/L	ARS-010/EPA 904	7/7/17 14:10	CT	0.03	< 3

Matrix Spike

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery(%)	MS Acceptance Range
ARS1-B17-01337	MS	Ra-226	56.138	9.035	0.160	55.385	N/A	pCi/L	ARS-010/EPA 903	7/14/17 9:39	CT	101	60%-140%
ARS1-B17-01337	MS	Ra-228	46.126	7.662	1.302	51.843	N/A	pCi/L	ARS-010/EPA 904	7/7/17 14:10	CT	89	60%-140%
ARS1-B17-01337	MSD	Ra-226	57.913	9.316	0.165	55.364	N/A	pCi/L	ARS-010/EPA 903	7/14/17 9:39	CT	105	60%-140%
ARS1-B17-01337	MSD	Ra-228	45.116	7.522	1.430	51.996	N/A	pCi/L	ARS-010/EPA 904	7/7/17 14:10	CT	87	60%-140%

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

INTERNATIONAL

QC Results Report

Sample Delivery Group: ARS1-17-01845

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-01337	LCS	RA-226	30.462	4.899	0.098	27.531	N/A	pCi/L	ARS-010/EPA 903	7/14/17 9:39	CT	111	75%-125%
ARS1-B17-01337	LCS	RA-228	37.364	6.211	1.045	39.784	N/A	pCi/L	ARS-010/EPA 904	7/7/17 14:10	CT	94	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-01337	MBL	RA-226	0.145	0.081	0.091	NA		pCi/L	ARS-010/EPA 903	7/14/17 9:39	CT
ARS1-B17-01337	MBL	RA-228	0.335	0.365	0.599	NA	U	pCi/L	ARS-010/EPA 904	7/7/17 14:10	CT

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-01337	LCSD	RA-226	30.462	4.899	32.113	5.167	N/A	pCi/L	ARS-010/EPA 903	7/14/17 9:39	CT	0.16	< 1
ARS1-B17-01337	LCSD	RA-228	37.364	6.211	37.098	6.169	N/A	pCi/L	ARS-010/EPA 904	7/7/17 14:10	CT	0.02	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-01337	LCSD	RA-226	30.462	4.899	32.113	5.167	N/A	pCi/L	ARS-010/EPA 903	7/14/17 9:39	CT	0.23	< 3
ARS1-B17-01337	LCSD	RA-228	37.364	6.211	37.098	6.169	N/A	pCi/L	ARS-010/EPA 904	7/7/17 14:10	CT	0.03	< 3

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

INTERNATIONAL

QC Results Report

Sample Delivery Group: ARS1-17-01845

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-01375	LCS	RA-226	23.217	3.753	0.106	27.545	N/A	pCi/L	ARS-010/EPA 903	7/19/17 9:21	SC	84	75%-125%
ARS1-B17-01375	LCS	RA-228	37.334	6.220	1.089	39.784	N/A	pCi/L	ARS-010/EPA 904	7/19/17 9:21	SC	94	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-01375	MBL	RA-226	0.047	0.059	0.097	NA	U	pCi/L	ARS-010/EPA 903	7/19/17 9:21	SC
ARS1-B17-01375	MBL	RA-228	0.085	0.375	0.664	NA	U	pCi/L	ARS-010/EPA 904	7/19/17 9:21	SC

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-01375	LCSD	RA-226	23.217	3.753	23.497	3.803	N/A	pCi/L	ARS-010/EPA 903	7/19/17 9:21	SC	0.04	< 1
ARS1-B17-01375	LCSD	RA-228	37.334	6.220	36.006	5.998	N/A	pCi/L	ARS-010/EPA 904	7/19/17 9:21	SC	0.11	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-01375	LCSD	RA-226	23.217	3.753	23.497	3.803	N/A	pCi/L	ARS-010/EPA 903	7/19/17 9:21	SC	0.05	< 3
ARS1-B17-01375	LCSD	RA-228	37.334	6.220	36.006	5.998	N/A	pCi/L	ARS-010/EPA 904	7/19/17 9:21	SC	0.15	< 3

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

ARS INTERNATIONAL

2609 North River Road • Port Allen, Louisiana 70767

1 (800) 401-4277 • Fax (225) 381-2996

Notes (Case Narrative):

Comments:

1.0) All MDA/MDC values are calculated on a sample specific basis.
2.0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.
3.0) Data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.
4.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix. Modified analyses are indicated by the subsequent addition of "m" to the procedure number (i.e. 900.0M).
5.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than the actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
6.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228 (Gamma Spectroscopy only).
7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234 (Gamma Spectroscopy only).
8.0) All gamma spectroscopy was performed utilizing high purity germanium detectors (**HPGe**).
9.0) ARS makes every attempt to match sample density to calibrated density; however, in some cases, it is not practical or possible to do so and data results may be affected (Gamma Spectroscopy only).
10.0) Gamma spectroscopy results are calculated values based on the **ORTEC®** GammaVision ENV32 Analysis Engine.
11.0) ACLASS DOD and ISO 17025 certification applies only to the following analytes and methods: Gross Alpha and Gross Beta (EPA 900, SM7110B&C, SW846 9310); Radium 226 (EPA 903, EPA 903.1, SM 7500 Ra-B, SW846 9315); Radium 228 (EPA 904, SM 7500 Ra-B SW846 9320); Iodine-131(EPA 901.1); Uranium by ICPMS (EPA 200.8); Strontium 89/90 (EPA 905, Eichrom SRW01, HASL 300 Sr-03-RC); Tritium (EPA 906, EPA 906M); Gamma Emitters (EPA 901.1, SM7120B, HASL 300 Ga-01-R); Americium-241, Curium 242/244, Plutonium 239/240 and 241, Thorium 228/230/232, Uranium 234/233 and 238 (Eichrom ACW03 VBS); Lead 210 (HASL 300 Pb-01-RC, Eichrom OTW01); Polonium 210 (HASL 300 Po-01-RC, HASL 300 Po-02-RC); Technetium-99 (Eichrom TCW02, Eichrom TCS01M).

Method References:

1.0) **EPA 600/4-80-032**; Prescribed Procedures for the Measurements of Radioactivity in Drinking Water, August 1980.
2.0) **Standard Methods for the Examination of Water and Wastewater** (On-Line Edition)
3.0) **EPA SW-846**; Test Methods for Evaluating Solid Waste, (On-Line edition)
4.0) **EPA 600/4/79-020**; Methods for Chemical Analysis of Water and Waste, March 1983.
5.0) **HASL 300**; The Procedures Manual of the Environmental Measurements Laboratory, Volume I, 28th Edition February, 1997.

Definitions:

CRDL	Contract Required Detection Limit
CSU	Combined Standard Uncertainty
DLC	Decision Level Concentration (ANSI N42.23) or critical level
DO	Duplicate Original
DUP	Method Duplicate
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
MDA	Minimum Detectable Activity
MDC	(Minimum Detectable Concentration) minimum concentration of the analyte that ARS can detect utilizing the specific analysis
MBL	Method Blank
MS/MSD	Matrix Spike/Matrix Spike Duplicate
N/A	Not Applicable
NP	Not Provided
NR	Not Referenced
LOD	Limit of Detection
LOQ	Limit of Quantitation

Data Qualifiers:

B	The analyte is found in both the associated method blank and the sample. This flag indicates probable blank contamination.
D	Sample analysis accomplished through dilution.
J	The reported result is an estimated value above the limit of detection but outside of quantitation range (e.g., matrix interference was observed).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).
U	Activity is below the MDC, MDA, MDL, or LOD
N	The analyte is a tentatively identified compound using mass spectrometry or any non-customer requested compounds that are tentatively identified.
*	LCS/LCSD or MS/MSD fails RPD criteria.
S	Spike
SC	Subcontracted out to another qualified laboratory
H	Holding time exceeded

B Environmental Laboratory, LLC

1606 E Brazos Suite D Victoria, Texas 77901 ph. (361) 572-8224

Chain Of Custody Rec

Batch # 56751

TEMP UN-C: 4.8 | Page 1 of 2

TEMP Corr: 4.6 | THERM ID# 3

Customer / Report Information

Name: Coleto Creek Power

Attention: Rick Coleman

Address: P.O. Box 8; Fannin, TX 77960

Billing Information

X Check box if Billing is the same as Report Information

Address:

Attention: PO #

Project: CCR Sampling

Comments:

Phone: 361-788-5145 | FAX:

EMAIL: richard.coleman@dynegy.com

Requested Analysis (A, B, C, D, E, F) | Completed By laboratory

Sample Information			Matrix	Container																	Custody Seals Present / Intact / LAB Sample Number
Client / Field Sample ID	Collected Date	Collected Time	G = Grab C = Composite	DW - Drinking H20, S - Solid, WW - Waste H20, SL - Sludge, L - Liquid, w - Water	TYPE	NUMBER	Size	Preservative	Metals*	Cl, F*, SO4	pH	TDS	Ra226 & Ra228	Alk:Tot, Carb, BiCarb	Diss Li & Mo					
E. Blank	6-20-17	1500	G	WW	P	6	1L / 500mL / 250mL	H2SO4, H3PO4, ICE, HNO3, NaOH, HCL, Na2SO3	X	X	X	X	X	X	X				S171711827
Dup			G	WW	P	6	1L / 500mL / 250mL	H2SO4, H3PO4, ICE, HNO3, NaOH, HCL, Na2SO3	X	X	X	X	X	X	X				S17171182A
BV-21/MS+MSD		1045	G	WW	P	6	1L / 500mL / 250mL	H2SO4, H3PO4, ICE, HNO3, NaOH, HCL, Na2SO3	X	X	X	X	X	X	X				
BV-21/MS+MSD		1045	G	WW	P	6	1L / 500mL / 250mL	H2SO4, H3PO4, ICE, HNO3, NaOH, HCL, Na2SO3	X	X	X	X	X	X	X				
BV-21		1045	G	WW	P	6	1L / 500mL / 250mL	H2SO4, H3PO4, ICE, HNO3, NaOH, HCL, Na2SO3	X	X	X	X	X	X	X				S17171182B
BV-22		935	G	WW	P	6	1L / 500mL / 250mL	H2SO4, H3PO4, ICE, HNO3, NaOH, HCL, Na2SO3	X	X	X	X	X	X	X				S17171182C
BV-15		1120	G	WW	P	6	1L / 500mL / 250mL	H2SO4, H3PO4, ICE, HNO3, NaOH, HCL, Na2SO3	X	X	X	X	X	X	X				S17171182D

Required Turnaround: ☒ Routine (6-10 Business days) | Expedite / Rush: ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business days ☐ 5 Business days ☐ Other _____ REMARKS:

Surcharge will apply to RUSH TAT Authorized BY: | Container Type: P=Plastic, G=Glass, V=Voa, O=Other | Carrier ID :

Relinquished By:		Date: 6-20-17	Time: 1315	Received By:		Date: 6/20/17	Time: 1315
Relinquished By:		Date: 6/20/17	Time: 1640	Received By:	Lori Fahrenthold	Date: 6/20/17	Time: 1640
Relinquished By		Date:	Time:	Received By:		Date:	Time:

FLuoride: MAL 0.25 mg/L Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Mg,K,Na, & Hg

B Environmental Laboratory, LLC

1606 E Brazos Suite D Victoria, Texas 77901 ph. (361) 572-8224

Chain Of Custody Rec

Batch # 567511 | TEMP UN-C: 4.9 | Page 2 of 2

X Check box if Billing is the same as Report Information | THERM ID# 3 | TEMP Corr: 4.6

Customer / Report Information	Billing Information		
Name: Coleto Creek Power	Address:	Phone: 361-788-5145	FAX:
Attention: Rick Coleman	Attention: PO #	EMAIL: richard.coleman@dynegy.com	
Address: P.O. Box 8; Fannin, TX 77960	Project: CCR Sampling Comments:	Requested Analysis	Completed By laboratory

Sample Information				Matrix	Container			Preservative		D Metals*	A Cl, F*, SO4	A pH	C TDS	E Ra226 & Ra228	B Alk:Tot, Carb, BiCarb	F Diss Li & Mo			Custody Seals Present / Intact	LAB Sample Number
Collected By:				DW - Drinking H20 S - Solid WW - Waste H20 SL - Sludge L - Liquid w - Water															Yes ☐ No ☐ Intact Yes ☐ No ☐	
Client / Field Sample ID	Collected Date	Collected Time	G = Grab C = Composite		TYPE	NUMBER	Size													
mw-4	6-20-17	842	G	WW	P	6	1L 500mL 250mL	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ ☐ Na2SO3		X	X	X	X	X	X	X				S17171182E
mw-8		1011	G	WW	P	6	1L 500mL 250mL	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ ☐ Na2SO3		X	X	X	X	X	X	X				S17171182F
BV-1		1415	G	WW	P	6	1L 500mL 250mL	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ ☐ Na2SO3		X	X	X	X	X	X	X				S17171182G
BV-5		1443	G	WW	P	6	1L 500mL 250mL	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ ☐ Na2SO3		X	X	X	X	X	X	X				S17171182H
BV-10		1344	G	WW	P	6	1L 500mL 250mL	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ ☐ Na2SO3		X	X	X	X	X	X	X				S17171182I
BV-19		1318	G	WW	P	6	1L 500mL 250mL	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ ☐ Na2SO3		X	X	X	X	X	X	X				S17171182J
			G	WW	P	6	1L 500mL 250mL	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ ☐ Na2SO3		X	X	X	X	X	X	X				

Required Turnaround: ☒ Routine (6-10 Business days) Expedite / Rush: ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business days ☐ 5 Business days ☐ Other ..... REMARKS:

Surcharge will apply to RUSH TAT Authorized BY: | Container Type: P=Plastic, G=Glass, V=Voa, O=Other | Carrier ID :

Relinquished By:	Date: 6-20-17	Time: 1315	Received By:	Date: 6/20/17	Time: 1315
Relinquished By:	Date: 6/20/17	Time: 1640	Received By:	Date: 6/20/17	Time: 1640
Relinquished By	Date:	Time:	Received By:	Date:	Time:

FLuoride: MAL 0.25 mg/L Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Mg,K,Na, & Hg

BatchNo: 56830

SAMPLE REPORT

T104704328-17-14

Business

Coleto Creek Power - R Coleman
PO Box 8
Fannin TX 77960
Att: Rick Coleman

Laboratory

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901
ph. 361-572-8224

Reference Information

Project: CCR

Printed: Wednesday, July 26, 2017

Re: Coleto Creek Power - R Coleman

Dear: Rick Coleman

Attached are the results for sample(s) received on 6/21/2017

The analytical results relate only to the samples tested.
All supporting quality data meets the requirements of NELAC unless noted in the case narrative section of the report.

This report contains 45 pages (including the cover page)

If you have any questions concerning this report, please do not hesitate to call (361) 572-8224 or Fax us at (361) 572-4115

Respectfully Submitted,

Kevin Baros

Laboratory Director

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56830

Batch No: 56830

Sample Receipt Checklist

Date Received: 6/22/2017

Project	CCR	Received By:	Woodruff

Login completed by: Woodruff (Signature) 6/22/2017 (LoginDate:)

Carrier Name: Walk In

Shipping container/cooler in good condition?	☑ YES	☐ NO	☐ Not Present	
Custody seals intact on shipping container/cooler?	☐ YES	☐ NO	☑ Not Present	
Custody seals intact on sample bottles?	☐ YES	☐ NO	☑ Not Present	
Chain of Custody present?	☑ YES	☐ NO		
Chain of Custody signed when relinquished and received	☑ YES	☐ NO		
Chain of Custody agrees with sample labels?	☑ YES	☐ NO		
Samples in proper container/bottles?	☑ YES	☐ NO		
Sample containers intact?	☑ YES	☐ NO		
Sufficient sample volume for indicated tests?	☑ YES	☐ NO		
All samples received within holding times?	☑ YES	☐ NO		
Container/Temp Blank - temperature in compliance?	☑ YES	☐ NO	>0 <6 °C On Ice	
Water - VOA vials have zero headspace? Bubble < 6mm?	☐ YES	☐ NO	☑ No VOA Vials submitted	
Water - pH acceptable upon receipt?	☑ YES	☐ NO	☐ Not Applicable	

*TEMP 4.1/3.9 | pH Adjusted? No | Checked By L. Vahrenkamp

Any No and/or N/A (not applicable) response must be detailed in the comments section below.

Client contacted		PersonContacted	
Contacted by:		Date Contacted:	

Regarding:

Comments:

Therm #3. HNO3 Lot # 2-42-12. pH Paper Lot # 2-25-6.

Corrective Action:

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56830 Page 3 of 45

Sample Report Information

Sample ID:	S171730743	Client ID:	PS 3	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR
Location: PS 3
Notes:

Batch No: 56830
Sampled: 6/21/2017 8:45 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	44	mg/L	EPA 300	K Baros	6/22/2017 21:38	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	146	mg/L	SM 2320 B		6/27/2017 11:20	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/27/2017 11:20	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	146	mg/L	SM 2320 B		6/27/2017 11:20	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	1	mg/L	EPA 300	K Baros	6/22/2017 21:38	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.48	SU	SM 4500-H+B	C Watts	6/21/2017 16:40					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	406	mg/L	SM2540C	C Watts	6/22/2017 16:15	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/3/2017 15:09					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	41	mg/L	EPA 300	K Baros	6/22/2017 21:38	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/20/2017 8:12					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56830

Sample Report Information

Sample ID:	S17173074A	Client ID:	MW-11	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR
Location: MW #11
Notes:

Batch No: 56830
Sampled: 6/21/2017 9:13 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	43.7	mg/L	EPA 300	K Baros	6/22/2017 15:55	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	146	mg/L	SM 2320 B		6/27/2017 11:25	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/27/2017 11:25	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	146	mg/L	SM 2320 B		6/27/2017 11:25	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	1.04	mg/L	EPA 300	K Baros	6/22/2017 15:55	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.56	SU	SM 4500-H+B	C Watts	6/21/2017 16:40					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	373	mg/L	SM2540C	C Watts	6/27/2017 10:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/3/2017 15:10					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	44	mg/L	EPA 300	K Baros	6/22/2017 15:55	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/20/2017 8:12					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56830

Sample Report Information

Sample ID:	S17173074B	Client ID:	MW-9	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR
Location: MW #9
Notes:

Batch No: 56830
Sampled: 6/21/2017 10:14 AM

Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	66	mg/L	EPA 300	K Baros	6/22/2017 16:33	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	134	mg/L	SM 2320 B		6/27/2017 11:31	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/27/2017 11:31	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	134	mg/L	SM 2320 B		6/27/2017 11:31	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	1.39	mg/L	EPA 300	K Baros	6/22/2017 16:33	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.44	SU	SM 4500-H+B	C Watts	6/21/2017 16:40					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	393	mg/L	SM2540C	C Watts	6/27/2017 10:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/3/2017 15:12					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	60	mg/L	EPA 300	K Baros	6/22/2017 16:33	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/20/2017 8:12					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56830

Sample Report Information

Sample ID:	S17173074C	Client ID:	MW-9A	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR
Location: MW 9A
Notes:

Batch No: 56830
Sampled: 6/21/2017 10:44 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	63	mg/L	EPA 300	K Baros	6/22/2017 17:12	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	137	mg/L	SM 2320 B		6/27/2017 11:36	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/27/2017 11:36	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	137	mg/L	SM 2320 B		6/27/2017 11:36	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	1.29	mg/L	EPA 300	K Baros	6/22/2017 17:12	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.49	SU	SM 4500-H+B	C Watts	6/21/2017 16:40					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	393	mg/L	SM2540C	C Watts	6/27/2017 10:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/3/2017 15:58					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	64	mg/L	EPA 300	K Baros	6/22/2017 17:12	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/20/2017 8:12					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56830

Sample Report Information

Sample ID:	S17173074D	Client ID:	Dup	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR
Location: Dup
Notes:

Batch No: 56830
Sampled: 6/21/2017 12:00 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	44	mg/L	EPA 300	K Baros	6/22/2017 17:50	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	144	mg/L	SM 2320 B		6/27/2017 11:42	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/27/2017 11:42	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	144	mg/L	SM 2320 B		6/27/2017 11:42	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	1.02	mg/L	EPA 300	K Baros	6/22/2017 17:50	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.49	SU	SM 4500-H+B	C Watts	6/21/2017 16:40					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	390	mg/L	SM2540C	C Watts	6/27/2017 10:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/3/2017 15:59					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	44	mg/L	EPA 300	K Baros	6/22/2017 17:50	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/20/2017 8:12					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56830

Sample Report Information

Sample ID:	S17173074E	Client ID:	MW-5	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR
Location: MW #5
Notes:

Batch No: 56830
Sampled: 6/21/2017 11:12 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	138	mg/L	EPA 300	K Baros	6/22/2017 18:28	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	286	mg/L	SM 2320 B		6/27/2017 11:53	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/27/2017 11:53	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	286	mg/L	SM 2320 B		6/27/2017 11:53	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.53	mg/L	EPA 300	K Baros	6/22/2017 18:28	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.03	SU	SM 4500-H+B	C Watts	6/21/2017 16:40					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	813	mg/L	SM2540C	C Watts	6/27/2017 10:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/3/2017 14:55					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	182	mg/L	EPA 300	K Baros	6/22/2017 18:28	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/20/2017 8:12					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56830

Sample Report Information

Sample ID:	S17173074F	Client ID:	MW-10	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR
Location: MW #10
Notes:

Batch No: 56830
Sampled: 6/21/2017 1:38 PM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	77	mg/L	EPA 300	K Baros	6/22/2017 20:22	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	241	mg/L	SM 2320 B		6/27/2017 14:06	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/27/2017 14:06	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	241	mg/L	SM 2320 B		6/27/2017 14:06	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.84	mg/L	EPA 300	K Baros	6/22/2017 20:22	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.43	SU	SM 4500-H+B	C Watts	6/21/2017 16:40					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	550	mg/L	SM2540C	C Watts	6/27/2017 10:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/3/2017 16:01					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	92	mg/L	EPA 300	K Baros	6/22/2017 20:22	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/20/2017 9:20					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56830

Sample Report Information

Sample ID:	S17173074G	Client ID:	MW-10A	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR
Location: MW 10A
Notes:

Batch No: 56830
Sampled: 6/21/2017 2:15 PM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	367	mg/L	EPA 300	K Baros	6/22/2017 21:00	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	338	mg/L	SM 2320 B		6/27/2017 14:20	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/27/2017 14:20	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	338	mg/L	SM 2320 B		6/27/2017 14:20	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.45	mg/L	EPA 300	K Baros	6/22/2017 21:00	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	6.82	SU	SM 4500-H+B	C Watts	6/21/2017 16:40					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	1123	mg/L	SM2540C	C Watts	6/27/2017 10:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/3/2017 16:03					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	86	mg/L	EPA 300	K Baros	6/22/2017 21:00	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/19/2017 9:21					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56830

QA Summary Report

Parameter	ID	Result	Ref Value	Amt Added	LOQ	Qualifer	Control	Flag	Comments
Method Blank									
.- Chloride, IC	Q171870955	<1mg/L	0		1		1		Blank Acceptable.
6/22/2017 14:39									
Fluoride, IC	Q171870955	<0.25mg/L	0		0.25		0.25		Blank Acceptable.
6/22/2017 14:39									
Solids, Total Dissolved	Q171801020	<25mg/L	0		10		25		Blank Acceptable.
6/27/2017 10:30									
Sulfate, IC	Q171870955	<1mg/L	0		1		1		Blank Acceptable.
6/22/2017 14:39									
Duplicate									
Solids, Total Dissolved	Q171801022	800mg/L	813		10	1.6%	20		Duplicate RPD Acceptable.
6/27/2017 10:30									
Laboratory Control Standard									
.- Chloride, IC	Q171870959	25.7mg/L	25		1	102.8%	80 - 120		Standard Recovery Acceptable.
6/22/2017 15:17						2.8%	20		Standard RPD Acceptable.
Fluoride, IC	Q171870959	2.07mg/L	2		0.25	103.5%	80 - 120		Standard Recovery Acceptable.
6/22/2017 15:17						3.4%	20		Standard RPD Acceptable.
Sulfate, IC	Q171870959	26.2mg/L	25		1	104.8%	80 - 120		Standard Recovery Acceptable.
6/22/2017 15:17						4.7%	20		Standard RPD Acceptable.
Matrix Spike									
.- Chloride, IC	Q17187095A	150mg/L	149	25	1	104.0%	80 - 120		Spike Recovery Acceptable.
6/22/2017 19:06						0.7%	20		Spike RPD Acceptable.
Fluoride, IC	Q17187095A	2.42mg/L	2.48	2	0.25	97.0%	80 - 120		Spike Recovery Acceptable.
6/22/2017 19:06						2.4%	20		Spike RPD Acceptable.
Sulfate, IC	Q17187095A	190mg/L	188.8	25	1	104.8%	70 - 130		Spike Recovery Acceptable.
6/22/2017 19:06						0.6%	20		Spike RPD Acceptable.
Matrix Spike Dup									
.- Chloride, IC	Q17187095B	150mg/L	0.149	25	1	500.6%	80 - 120		Out of Range.
6/22/2017 19:44						199.6%	20		RPD - Out of Range.
Fluoride, IC	Q17187095B	2.39mg/L	2.48	2	0.25	95.5%	80 - 120		Spike Recovery Acceptable.
6/22/2017 19:44						3.7%	20		Spike RPD Acceptable.
Sulfate, IC	Q17187095B	190mg/L	188.8	25	1	104.8%	70 - 130		Spike Recovery Acceptable.
6/22/2017 19:44						0.6%	20		Spike RPD Acceptable.

Flag and Qualifier Legend

Negative - Result Detected
Caution - Problem Detected
Warning - Null Value

MDL = Method Detection Limit ***DF = Dilution Factor***
LOQ = Limit of Quantitation ***J = Analyte detected between MDL and LOQ***
S = surrogate standard out of limit ***H = sample out of hold time***

MS, MSD, RPD- Failure may occur due to matrix interference, data released per QA plan

Wednesday, July 26, 2017 **B Environmental - LDMS QA Report Summary**

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56830

Note: THANK YOU!

DHL Analytical, Inc. **Date:** *06-Jul-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Lab Order: 1706277

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition and Standard Methods.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives except where noted in the following. For Dissolved Metals Analysis, the recovery and RPD of Lithium for the Matrix Spike Duplicate (1706277-06 MSD) were slightly above the method control limits. These are flagged accordingly in the QC Summary Report. This analyte was within method control limits in the associated LCS/MS. No further corrective action was taken.

For Total Metals Analysis, the recoveries of Calcium and Sodium for the Matrix Spike and Matrix Spike Duplicate (1706277-06 MS/MSD) were outside of the method control limits. These are flagged accordingly in the QC Summary Report. These analytes were within method control limits in the associated LCS. No further corrective action was taken.

For Total Metals Analysis, the RPD of Boron for the Serial Dilution (1706277-06 SD) was above the method control limit. This is flagged accordingly in the QC Summary Report. This analyte was within method control limits in the associated Post Digestion Spike. No further corrective action was taken.

For Dissolved/Total Metals Analysis, the results of Dissolved Lithium/Molybdenum for three samples were slightly higher than the results of Total Lithium/Molybdenum. The results were within acceptable analytical variation limits. No further corrective action was taken.

DHL Analytical, Inc.

Date: *06-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	PS 3
Project:	Coleto Creek Power	**Lab ID:**	1706277-01
Project No:	CCR (56830)	**Alternate ID:**	S171730743
Lab Order:	1706277	**Collection Date:**	06/21/17 08:45 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **RO**
Dissolved Lithium	0.00965	0.00500	0.0100	J	mg/L	1	07/05/17 12:44 PM
Dissolved Molybdenum	0.00426	0.00200	0.00500	J	mg/L	1	06/30/17 12:46 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **RO**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	07/03/17 03:09 PM
Arsenic	0.00828	0.00200	0.00500		mg/L	1	07/03/17 03:09 PM
Barium	0.163	0.00300	0.0100		mg/L	1	07/03/17 03:09 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	07/03/17 03:09 PM
Boron	1.29	0.0100	0.0300		mg/L	1	07/03/17 03:09 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	07/03/17 03:09 PM
Calcium	251	5.00	15.0		mg/L	50	07/05/17 11:56 AM
Chromium	0.0153	0.00200	0.00500		mg/L	1	07/03/17 03:09 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	07/03/17 03:09 PM
Lead	0.00367	0.000300	0.00100		mg/L	1	07/03/17 03:09 PM
Lithium	0.0105	0.00500	0.0100		mg/L	1	07/05/17 01:29 PM
Magnesium	4.38	0.100	0.300		mg/L	1	07/03/17 03:09 PM
Molybdenum	0.00486	0.00200	0.00500	J	mg/L	1	07/03/17 03:09 PM
Potassium	2.05	0.100	0.300		mg/L	1	07/03/17 03:09 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	07/03/17 03:09 PM
Sodium	65.0	5.00	15.0		mg/L	50	07/05/17 11:56 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	07/03/17 03:09 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/30/17 11:33 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	146	10.0	20.0		mg/L @ pH 4.49	1	06/27/17 11:20 AM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.49	1	06/27/17 11:20 AM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.49	1	06/27/17 11:20 AM
Alkalinity, Total (As CaCO3)	146	20.0	20.0		mg/L @ pH 4.49	1	06/27/17 11:20 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *06-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-11
Project:	Coleto Creek Power	**Lab ID:**	1706277-02
Project No:	CCR (56830)	**Alternate ID:**	S17173074A
Lab Order:	1706277	**Collection Date:**	06/21/17 09:13 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **RO**
Dissolved Lithium	0.0139	0.00500	0.0100		mg/L	1	07/05/17 12:46 PM
Dissolved Molybdenum	0.00760	0.00200	0.00500		mg/L	1	06/30/17 12:47 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **RO**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	07/03/17 03:10 PM
Arsenic	0.0203	0.00200	0.00500		mg/L	1	07/03/17 03:10 PM
Barium	0.0822	0.00300	0.0100		mg/L	1	07/03/17 03:10 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	07/03/17 03:10 PM
Boron	1.19	0.0100	0.0300		mg/L	1	07/03/17 03:10 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	07/03/17 03:10 PM
Calcium	73.1	1.00	3.00		mg/L	10	07/05/17 11:57 AM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	07/03/17 03:10 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	07/03/17 03:10 PM
Lead	0.00322	0.000300	0.00100		mg/L	1	07/03/17 03:10 PM
Lithium	0.0136	0.00500	0.0100		mg/L	1	07/05/17 01:30 PM
Magnesium	4.11	0.100	0.300		mg/L	1	07/03/17 03:10 PM
Molybdenum	0.00659	0.00200	0.00500		mg/L	1	07/03/17 03:10 PM
Potassium	1.44	0.100	0.300		mg/L	1	07/03/17 03:10 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	07/03/17 03:10 PM
Sodium	62.7	1.00	3.00		mg/L	10	07/05/17 11:57 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	07/03/17 03:10 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/30/17 11:35 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	146	10.0	20.0		mg/L @ pH 4.46	1	06/27/17 11:25 AM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.46	1	06/27/17 11:25 AM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.46	1	06/27/17 11:25 AM
Alkalinity, Total (As CaCO3)	146	20.0	20.0		mg/L @ pH 4.46	1	06/27/17 11:25 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *06-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-9
Project:	Coleto Creek Power	**Lab ID:**	1706277-03
Project No:	CCR (56830)	**Alternate ID:**	S17173074B
Lab Order:	1706277	**Collection Date:**	06/21/17 10:14 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **RO**
Dissolved Lithium	0.00592	0.00500	0.0100	J	mg/L	1	07/05/17 12:47 PM
Dissolved Molybdenum	0.101	0.00200	0.00500		mg/L	1	06/30/17 12:49 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **RO**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	07/03/17 03:12 PM
Arsenic	0.00937	0.00200	0.00500		mg/L	1	07/03/17 03:12 PM
Barium	0.119	0.00300	0.0100		mg/L	1	07/03/17 03:12 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	07/03/17 03:12 PM
Boron	3.44	0.100	0.300		mg/L	10	07/05/17 11:59 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	07/03/17 03:12 PM
Calcium	60.7	1.00	3.00		mg/L	10	07/05/17 11:59 AM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	07/03/17 03:12 PM
Cobalt	0.00305	0.00300	0.00500	J	mg/L	1	07/03/17 03:12 PM
Lead	0.00136	0.000300	0.00100		mg/L	1	07/03/17 03:12 PM
Lithium	0.00554	0.00500	0.0100	J	mg/L	1	07/05/17 01:32 PM
Magnesium	7.07	0.100	0.300		mg/L	1	07/03/17 03:12 PM
Molybdenum	0.102	0.00200	0.00500		mg/L	1	07/03/17 03:12 PM
Potassium	0.872	0.100	0.300		mg/L	1	07/03/17 03:12 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	07/03/17 03:12 PM
Sodium	64.0	1.00	3.00		mg/L	10	07/05/17 11:59 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	07/03/17 03:12 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/30/17 11:37 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	134	10.0	20.0		mg/L @ pH 4.52	1	06/27/17 11:31 AM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	06/27/17 11:31 AM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	06/27/17 11:31 AM
Alkalinity, Total (As CaCO3)	134	20.0	20.0		mg/L @ pH 4.52	1	06/27/17 11:31 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *06-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-9A
Project:	Coleto Creek Power	**Lab ID:**	1706277-04
Project No:	CCR (56830)	**Alternate ID:**	S17173074C
Lab Order:	1706277	**Collection Date:**	06/21/17 10:44 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **RO**
Dissolved Lithium	0.00650	0.00500	0.0100	J	mg/L	1	07/05/17 12:49 PM
Dissolved Molybdenum	0.0745	0.00200	0.00500		mg/L	1	06/30/17 12:51 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **RO**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	07/03/17 03:58 PM
Arsenic	0.0100	0.00200	0.00500		mg/L	1	07/03/17 03:58 PM
Barium	0.128	0.00300	0.0100		mg/L	1	07/03/17 03:58 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	07/03/17 03:58 PM
Boron	3.68	0.100	0.300		mg/L	10	07/05/17 12:01 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	07/03/17 03:58 PM
Calcium	75.6	1.00	3.00		mg/L	10	07/05/17 12:01 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	07/03/17 03:58 PM
Cobalt	0.00316	0.00300	0.00500	J	mg/L	1	07/03/17 03:58 PM
Lead	0.00257	0.000300	0.00100		mg/L	1	07/03/17 03:58 PM
Lithium	0.00689	0.00500	0.0100	J	mg/L	1	07/05/17 01:34 PM
Magnesium	8.85	0.100	0.300		mg/L	1	07/03/17 03:58 PM
Molybdenum	0.0804	0.00200	0.00500		mg/L	1	07/03/17 03:58 PM
Potassium	0.827	0.100	0.300		mg/L	1	07/03/17 03:58 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	07/03/17 03:58 PM
Sodium	65.3	1.00	3.00		mg/L	10	07/05/17 12:01 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	07/03/17 03:58 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/30/17 11:39 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	137	10.0	20.0		mg/L @ pH 4.52	1	06/27/17 11:36 AM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	06/27/17 11:36 AM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	06/27/17 11:36 AM
Alkalinity, Total (As CaCO3)	137	20.0	20.0		mg/L @ pH 4.52	1	06/27/17 11:36 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *06-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	DUP 2
Project:	Coleto Creek Power	**Lab ID:**	1706277-05
Project No:	CCR (56830)	**Alternate ID:**	S17173074D
Lab Order:	1706277	**Collection Date:**	06/21/17
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **RO**
Dissolved Lithium	0.0137	0.00500	0.0100		mg/L	1	07/05/17 12:51 PM
Dissolved Molybdenum	0.00762	0.00200	0.00500		mg/L	1	06/30/17 12:53 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **RO**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	07/03/17 03:59 PM
Arsenic	0.0199	0.00200	0.00500		mg/L	1	07/03/17 03:59 PM
Barium	0.0834	0.00300	0.0100		mg/L	1	07/03/17 03:59 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	07/03/17 03:59 PM
Boron	1.23	0.0100	0.0300		mg/L	1	07/03/17 03:59 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	07/03/17 03:59 PM
Calcium	68.8	1.00	3.00		mg/L	10	07/05/17 12:03 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	07/03/17 03:59 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	07/03/17 03:59 PM
Lead	0.00229	0.000300	0.00100		mg/L	1	07/03/17 03:59 PM
Lithium	0.0143	0.00500	0.0100		mg/L	1	07/05/17 01:36 PM
Magnesium	4.03	0.100	0.300		mg/L	1	07/03/17 03:59 PM
Molybdenum	0.00802	0.00200	0.00500		mg/L	1	07/03/17 03:59 PM
Potassium	1.45	0.100	0.300		mg/L	1	07/03/17 03:59 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	07/03/17 03:59 PM
Sodium	63.9	1.00	3.00		mg/L	10	07/05/17 12:03 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	07/03/17 03:59 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/30/17 11:42 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	144	10.0	20.0		mg/L @ pH 4.51	1	06/27/17 11:42 AM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	06/27/17 11:42 AM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	06/27/17 11:42 AM
Alkalinity, Total (As CaCO3)	144	20.0	20.0		mg/L @ pH 4.51	1	06/27/17 11:42 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *06-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-5
Project:	Coleto Creek Power	**Lab ID:**	1706277-06
Project No:	CCR (56830)	**Alternate ID:**	S17173074E
Lab Order:	1706277	**Collection Date:**	06/21/17 11:12 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **RO**
Dissolved Lithium	0.0196	0.00500	0.0100		mg/L	1	07/05/17 10:59 AM
Dissolved Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	07/05/17 10:59 AM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **RO**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	07/03/17 02:55 PM
Arsenic	0.00917	0.00200	0.00500		mg/L	1	07/03/17 02:55 PM
Barium	0.0767	0.00300	0.0100		mg/L	1	07/03/17 02:55 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	07/03/17 02:55 PM
Boron	0.122	0.0100	0.0300		mg/L	1	07/03/17 02:55 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	07/03/17 02:55 PM
Calcium	124	1.00	3.00		mg/L	10	07/05/17 11:50 AM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	07/03/17 02:55 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	07/03/17 02:55 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	07/03/17 02:55 PM
Lithium	0.0197	0.00500	0.0100		mg/L	1	07/05/17 01:25 PM
Magnesium	23.3	0.100	0.300		mg/L	1	07/03/17 02:55 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	07/03/17 02:55 PM
Potassium	1.44	0.100	0.300		mg/L	1	07/03/17 02:55 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	07/03/17 02:55 PM
Sodium	129	1.00	3.00		mg/L	10	07/05/17 11:50 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	07/03/17 02:55 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/30/17 11:44 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	286	10.0	20.0		mg/L @ pH 4.51	1	06/27/17 11:53 AM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	06/27/17 11:53 AM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	06/27/17 11:53 AM
Alkalinity, Total (As CaCO3)	286	20.0	20.0		mg/L @ pH 4.51	1	06/27/17 11:53 AM

Qualifiers:			
	*	Value exceeds TCLP Maximum Concentration Level	B Analyte detected in the associated Method Blank
	C	Sample Result or QC discussed in the Case Narrative	DF Dilution Factor
	E	TPH pattern not Gas or Diesel Range Pattern	J Analyte detected between MDL and RL
	MDL	Method Detection Limit	ND Not Detected at the Method Detection Limit
	RL	Reporting Limit	S Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *06-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-10
Project:	Coleto Creek Power	**Lab ID:**	1706277-07
Project No:	CCR (56830)	**Alternate ID:**	S17173074F
Lab Order:	1706277	**Collection Date:**	06/21/17 01:38 PM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **RO**
Dissolved Lithium	0.0139	0.00500	0.0100		mg/L	1	07/05/17 12:53 PM
Dissolved Molybdenum	0.108	0.00200	0.00500		mg/L	1	06/30/17 12:55 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **RO**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	07/03/17 04:01 PM
Arsenic	0.0149	0.00200	0.00500		mg/L	1	07/03/17 04:01 PM
Barium	0.0540	0.00300	0.0100		mg/L	1	07/03/17 04:01 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	07/03/17 04:01 PM
Boron	9.22	0.500	1.50		mg/L	50	07/05/17 12:05 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	07/03/17 04:01 PM
Calcium	60.7	5.00	15.0		mg/L	50	07/05/17 12:05 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	07/03/17 04:01 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	07/03/17 04:01 PM
Lead	0.000503	0.000300	0.00100	J	mg/L	1	07/03/17 04:01 PM
Lithium	0.0133	0.00500	0.0100		mg/L	1	07/05/17 01:37 PM
Magnesium	9.96	0.100	0.300		mg/L	1	07/03/17 04:01 PM
Molybdenum	0.113	0.00200	0.00500		mg/L	1	07/03/17 04:01 PM
Potassium	0.751	0.100	0.300		mg/L	1	07/03/17 04:01 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	07/03/17 04:01 PM
Sodium	138	5.00	15.0		mg/L	50	07/05/17 12:05 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	07/03/17 04:01 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/30/17 11:55 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	241	10.0	20.0		mg/L @ pH 4.52	1	06/27/17 02:06 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	06/27/17 02:06 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	06/27/17 02:06 PM
Alkalinity, Total (As CaCO3)	241	20.0	20.0		mg/L @ pH 4.52	1	06/27/17 02:06 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *06-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-10A
Project:	Coleto Creek Power	**Lab ID:**	1706277-08
Project No:	CCR (56830)	**Alternate ID:**	S17173074G
Lab Order:	1706277	**Collection Date:**	06/21/17 02:45 PM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **RO**
Dissolved Lithium	0.0264	0.00500	0.0100		mg/L	1	07/05/17 12:54 PM
Dissolved Molybdenum	0.00256	0.00200	0.00500	J	mg/L	1	06/30/17 12:56 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **RO**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	07/03/17 04:03 PM
Arsenic	0.00481	0.00200	0.00500	J	mg/L	1	07/03/17 04:03 PM
Barium	0.0943	0.00300	0.0100		mg/L	1	07/03/17 04:03 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	07/03/17 04:03 PM
Boron	0.427	0.0100	0.0300		mg/L	1	07/03/17 04:03 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	07/03/17 04:03 PM
Calcium	180	5.00	15.0		mg/L	50	07/05/17 12:06 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	07/03/17 04:03 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	07/03/17 04:03 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	07/03/17 04:03 PM
Lithium	0.0279	0.00500	0.0100		mg/L	1	07/05/17 01:39 PM
Magnesium	30.7	5.00	15.0		mg/L	50	07/05/17 12:06 PM
Molybdenum	0.00283	0.00200	0.00500	J	mg/L	1	07/03/17 04:03 PM
Potassium	1.65	0.100	0.300		mg/L	1	07/03/17 04:03 PM
Selenium	0.00207	0.00200	0.00500	J	mg/L	1	07/03/17 04:03 PM
Sodium	180	5.00	15.0		mg/L	50	07/05/17 12:06 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	07/03/17 04:03 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/30/17 11:58 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	338	10.0	20.0		mg/L @ pH 4.52	1	06/27/17 02:20 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	06/27/17 02:20 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	06/27/17 02:20 PM
Alkalinity, Total (As CaCO3)	338	20.0	20.0		mg/L @ pH 4.52	1	06/27/17 02:20 PM

Qualifiers:			
	*	Value exceeds TCLP Maximum Concentration Level	B Analyte detected in the associated Method Blank
	C	Sample Result or QC discussed in the Case Narrative	DF Dilution Factor
	E	TPH pattern not Gas or Diesel Range Pattern	J Analyte detected between MDL and RL
	MDL	Method Detection Limit	ND Not Detected at the Method Detection Limit
	RL	Reporting Limit	S Spike Recovery outside control limits

DHL Analytical, Inc. **Date:** *06-Jul-17*

CLIENT: B-Environmental
Work Order: 1706277
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_170630A

The QC data in batch 81195 applies to the following samples: 1706277-01A, 1706277-02A, 1706277-03A, 1706277-04A, 1706277-05A, 1706277-06A, 1706277-07A, 1706277-08A

Sample ID	MB-81195	Batch ID:	81195	TestNo:	SW7470A	Units:	mg/L
SampType:	MBLK	Run ID:	CETAC2_HG_170630A	Analysis Date:	6/30/2017 11:21:45 AM	Prep Date:	6/29/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.0000800	0.000200								

Sample ID	LCS-81195	Batch ID:	81195	TestNo:	SW7470A	Units:	mg/L
SampType:	LCS	Run ID:	CETAC2_HG_170630A	Analysis Date:	6/30/2017 11:24:01 AM	Prep Date:	6/29/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00199	0.000200	0.00200	0	99.5	85	115			

Sample ID	LCSD-81195	Batch ID:	81195	TestNo:	SW7470A	Units:	mg/L
SampType:	LCSD	Run ID:	CETAC2_HG_170630A	Analysis Date:	6/30/2017 11:26:17 AM	Prep Date:	6/29/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00208	0.000200	0.00200	0	104	85	115	4.42	15	

Sample ID	1706277-06A SD	Batch ID:	81195	TestNo:	SW7470A	Units:	mg/L
SampType:	SD	Run ID:	CETAC2_HG_170630A	Analysis Date:	6/30/2017 11:46:40 AM	Prep Date:	6/29/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.000400	0.00100	0	0				0	10	

Sample ID	1706277-06A PDS	Batch ID:	81195	TestNo:	SW7470A	Units:	mg/L
SampType:	PDS	Run ID:	CETAC2_HG_170630A	Analysis Date:	6/30/2017 11:48:56 AM	Prep Date:	6/29/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00231	0.000200	0.00250	0	92.4	85	115			

Sample ID	1706277-06A MS	Batch ID:	81195	TestNo:	SW7470A	Units:	mg/L
SampType:	MS	Run ID:	CETAC2_HG_170630A	Analysis Date:	6/30/2017 11:51:12 AM	Prep Date:	6/29/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00194	0.000200	0.00200	0	97.0	80	120			

Sample ID	1706277-06A MSD	Batch ID:	81195	TestNo:	SW7470A	Units:	mg/L
SampType:	MSD	Run ID:	CETAC2_HG_170630A	Analysis Date:	6/30/2017 11:53:28 AM	Prep Date:	6/29/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00192	0.000200	0.00200	0	96.0	80	120	1.04	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706277
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170630A

The QC data in batch 81153 applies to the following samples: 1706277-01B, 1706277-02B, 1706277-03B, 1706277-04B, 1706277-05B, 1706277-06B, 1706277-07B, 1706277-08B

Sample ID **MB-81153** Batch ID: **81153** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS5_170630A** Analysis Date: **6/30/2017 11:47:00 AM** Prep Date: **6/29/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.00500	0.0100								
Molybdenum	<0.00200	0.00500								

Sample ID **LCS-81153** Batch ID: **81153** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS5_170630A** Analysis Date: **6/30/2017 11:49:00 AM** Prep Date: **6/29/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.214	0.0100	0.200	0	107	80	120			
Molybdenum	0.188	0.00500	0.200	0	93.8	80	120			

Sample ID **LCSD-81153** Batch ID: **81153** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS5_170630A** Analysis Date: **6/30/2017 11:51:00 AM** Prep Date: **6/29/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.215	0.0100	0.200	0	108	80	120	0.739	15	
Molybdenum	0.192	0.00500	0.200	0	95.9	80	120	2.14	15	

Sample ID **1706277-06B MS** Batch ID: **81153** TestNo: **SW6020A** Units: **mg/L**
SampType: **MS** Run ID: **ICP-MS5_170630A** Analysis Date: **6/30/2017 12:17:00 PM** Prep Date: **6/29/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Lithium	0.209	0.500	0.200	0	105	80	120			
Dissolved Molybdenum	0.188	0.250	0.200	0	93.8	80	120			

Sample ID **1706277-06B MSD** Batch ID: **81153** TestNo: **SW6020A** Units: **mg/L**
SampType: **MSD** Run ID: **ICP-MS5_170630A** Analysis Date: **6/30/2017 12:19:00 PM** Prep Date: **6/29/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Lithium	0.265	0.500	0.200	0	133	80	120	23.5	15	SR
Dissolved Molybdenum	0.188	0.250	0.200	0	93.8	80	120	0.026	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706277
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170703B

The QC data in batch 81152 applies to the following samples: 1706277-01A, 1706277-02A, 1706277-03A, 1706277-04A, 1706277-05A, 1706277-06A, 1706277-07A, 1706277-08A

Sample ID **MB-81152** Batch ID: **81152** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS5_170703B** Analysis Date: **7/3/2017 2:47:00 PM** Prep Date: **6/28/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.000800	0.00250								
Arsenic	<0.00200	0.00500								
Barium	<0.00300	0.0100								
Beryllium	<0.000300	0.00100								
Boron	<0.0100	0.0300								
Cadmium	<0.000300	0.00100								
Calcium	<0.100	0.300								
Chromium	<0.00200	0.00500								
Cobalt	<0.00300	0.00500								
Lead	<0.000300	0.00100								
Magnesium	<0.100	0.300								
Molybdenum	<0.00200	0.00500								
Potassium	<0.100	0.300								
Selenium	<0.00200	0.00500								
Sodium	<0.100	0.300								
Thallium	<0.000500	0.00150								

Sample ID **LCS-81152** Batch ID: **81152** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS5_170703B** Analysis Date: **7/3/2017 2:49:00 PM** Prep Date: **6/28/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.205	0.00250	0.200	0	103	80	120			
Arsenic	0.202	0.00500	0.200	0	101	80	120			
Barium	0.211	0.0100	0.200	0	105	80	120			
Beryllium	0.216	0.00100	0.200	0	108	80	120			
Boron	0.211	0.0300	0.200	0	106	80	120			
Cadmium	0.215	0.00100	0.200	0	108	80	120			
Calcium	5.17	0.300	5.00	0	103	80	120			
Chromium	0.206	0.00500	0.200	0	103	80	120			
Cobalt	0.209	0.00500	0.200	0	105	80	120			
Lead	0.196	0.00100	0.200	0	97.8	80	120			
Magnesium	5.17	0.300	5.00	0	103	80	120			
Molybdenum	0.209	0.00500	0.200	0	104	80	120			
Potassium	4.86	0.300	5.00	0	97.1	80	120			
Selenium	0.201	0.00500	0.200	0	100	80	120			
Sodium	5.32	0.300	5.00	0	106	80	120			
Thallium	0.198	0.00150	0.200	0	98.8	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706277
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170703B

Sample ID	LCSD-81152	Batch ID:	81152	TestNo:	SW6020A	Units:	mg/L
SampType:	LCSD	Run ID:	ICP-MS5_170703B	Analysis Date:	7/3/2017 2:51:00 PM	Prep Date:	6/28/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.207	0.00250	0.200	0	103	80	120	0.738	15	
Arsenic	0.203	0.00500	0.200	0	102	80	120	0.488	15	
Barium	0.208	0.0100	0.200	0	104	80	120	1.18	15	
Beryllium	0.214	0.00100	0.200	0	107	80	120	0.937	15	
Boron	0.210	0.0300	0.200	0	105	80	120	0.533	15	
Cadmium	0.214	0.00100	0.200	0	107	80	120	0.787	15	
Calcium	5.21	0.300	5.00	0	104	80	120	0.724	15	
Chromium	0.207	0.00500	0.200	0	104	80	120	0.466	15	
Cobalt	0.212	0.00500	0.200	0	106	80	120	1.15	15	
Lead	0.197	0.00100	0.200	0	98.3	80	120	0.540	15	
Magnesium	5.17	0.300	5.00	0	103	80	120	0.005	15	
Molybdenum	0.208	0.00500	0.200	0	104	80	120	0.620	15	
Potassium	4.87	0.300	5.00	0	97.4	80	120	0.260	15	
Selenium	0.199	0.00500	0.200	0	99.5	80	120	0.800	15	
Sodium	5.32	0.300	5.00	0	106	80	120	0.029	15	
Thallium	0.199	0.00150	0.200	0	99.6	80	120	0.765	15	

Sample ID	1706277-06A SD	Batch ID:	81152	TestNo:	SW6020A	Units:	mg/L
SampType:	SD	Run ID:	ICP-MS5_170703B	Analysis Date:	7/3/2017 2:56:00 PM	Prep Date:	6/28/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.00400	0.0125	0	0				0	10	
Arsenic	<0.0100	0.0250	0	0.00917				0	10	
Barium	0.0743	0.0500	0	0.0767				3.18	10	
Beryllium	<0.00150	0.00500	0	0				0	10	
Boron	0.140	0.150	0	0.122				14.3	10	R
Cadmium	<0.00150	0.00500	0	0				0	10	
Chromium	<0.0100	0.0250	0	0				0	10	
Cobalt	<0.0150	0.0250	0	0				0	10	
Lead	<0.00150	0.00500	0	0				0	10	
Magnesium	23.7	1.50	0	23.3				1.84	10	
Molybdenum	<0.0100	0.0250	0	0				0	10	
Potassium	1.45	1.50	0	1.44				1.05	10	
Selenium	<0.0100	0.0250	0	0				0	10	
Thallium	<0.00250	0.00750	0	0				0	10	

Sample ID	1706277-06A PDS	Batch ID:	81152	TestNo:	SW6020A	Units:	mg/L
SampType:	PDS	Run ID:	ICP-MS5_170703B	Analysis Date:	7/3/2017 3:21:00 PM	Prep Date:	6/28/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.201	0.00250	0.200	0	101	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706277
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170703B

Sample ID 1706277-06A PDS	Batch ID: 81152	TestNo: SW6020A	Units: mg/L
SampType: PDS	Run ID: ICP-MS5_170703B	Analysis Date: 7/3/2017 3:21:00 PM	Prep Date: 6/28/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.206	0.00500	0.200	0.00917	98.6	80	120			
Barium	0.268	0.0100	0.200	0.0767	95.8	80	120			
Beryllium	0.218	0.00100	0.200	0	109	80	120			
Boron	0.360	0.0300	0.200	0.122	119	80	120			
Cadmium	0.204	0.00100	0.200	0	102	80	120			
Chromium	0.209	0.00500	0.200	0	105	80	120			
Cobalt	0.201	0.00500	0.200	0	101	80	120			
Lead	0.194	0.00100	0.200	0	96.8	80	120			
Magnesium	27.5	0.300	5.00	23.3	84.4	80	120			
Molybdenum	0.198	0.00500	0.200	0	99.0	80	120			
Potassium	5.99	0.300	5.00	1.44	91.1	80	120			
Selenium	0.185	0.00500	0.200	0	92.6	80	120			
Thallium	0.194	0.00150	0.200	0	97.0	80	120			

Sample ID 1706277-06A MS	Batch ID: 81152	TestNo: SW6020A	Units: mg/L
SampType: MS	Run ID: ICP-MS5_170703B	Analysis Date: 7/3/2017 3:23:00 PM	Prep Date: 6/28/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.214	0.00250	0.200	0	107	80	120			
Arsenic	0.207	0.00500	0.200	0.00917	98.7	80	120			
Barium	0.288	0.0100	0.200	0.0767	106	80	120			
Beryllium	0.216	0.00100	0.200	0	108	80	120			
Boron	0.338	0.0300	0.200	0.122	108	80	120			
Cadmium	0.214	0.00100	0.200	0	107	80	120			
Calcium	126	0.300	5.00	126	2.44	80	120			S
Chromium	0.203	0.00500	0.200	0	102	80	120			
Cobalt	0.200	0.00500	0.200	0	99.8	80	120			
Lead	0.195	0.00100	0.200	0	97.4	80	120			
Magnesium	27.6	0.300	5.00	23.3	87.1	80	120			
Molybdenum	0.216	0.00500	0.200	0	108	80	120			
Potassium	6.09	0.300	5.00	1.44	93.1	80	120			
Selenium	0.191	0.00500	0.200	0	95.4	80	120			
Sodium	127	0.300	5.00	127	12.9	80	120			S
Thallium	0.198	0.00150	0.200	0	99.0	80	120			

Sample ID 1706277-06A MSD	Batch ID: 81152	TestNo: SW6020A	Units: mg/L
SampType: MSD	Run ID: ICP-MS5_170703B	Analysis Date: 7/3/2017 3:25:00 PM	Prep Date: 6/28/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.211	0.00250	0.200	0	105	80	120	1.61	15	
Arsenic	0.204	0.00500	0.200	0.00917	97.2	80	120	1.39	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706277
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170703B

Sample ID	1706277-06A MSD	Batch ID:	81152	TestNo:	SW6020A	Units:	mg/L
SampType:	MSD	Run ID:	ICP-MS5_170703B	Analysis Date:	7/3/2017 3:25:00 PM	Prep Date:	6/28/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.283	0.0100	0.200	0.0767	103	80	120	1.84	15	
Beryllium	0.215	0.00100	0.200	0	107	80	120	0.451	15	
Boron	0.348	0.0300	0.200	0.122	113	80	120	2.72	15	
Cadmium	0.211	0.00100	0.200	0	105	80	120	1.70	15	
Calcium	124	0.300	5.00	126	-40.7	80	120	1.73	15	S
Chromium	0.202	0.00500	0.200	0	101	80	120	0.581	15	
Cobalt	0.200	0.00500	0.200	0	100	80	120	0.144	15	
Lead	0.192	0.00100	0.200	0	95.8	80	120	1.72	15	
Magnesium	27.3	0.300	5.00	23.3	80.6	80	120	1.18	15	
Molybdenum	0.212	0.00500	0.200	0	106	80	120	1.83	15	
Potassium	5.98	0.300	5.00	1.44	91.0	80	120	1.75	15	
Selenium	0.190	0.00500	0.200	0	94.8	80	120	0.609	15	
Sodium	127	0.300	5.00	127	5.50	80	120	0.290	15	S
Thallium	0.194	0.00150	0.200	0	97.0	80	120	2.06	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706277
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170705A

The QC data in batch 81152 applies to the following samples: 1706277-01A, 1706277-02A, 1706277-03A, 1706277-04A, 1706277-05A, 1706277-06A, 1706277-07A, 1706277-08A

Sample ID	MB-81152	Batch ID:	81152	TestNo:	SW6020A	Units:	mg/L
SampType:	MBLK	Run ID:	ICP-MS5_170705A	Analysis Date:	7/5/2017 11:43:00 AM	Prep Date:	6/28/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.00500	0.0100								

Sample ID	LCS-81152	Batch ID:	81152	TestNo:	SW6020A	Units:	mg/L
SampType:	LCS	Run ID:	ICP-MS5_170705A	Analysis Date:	7/5/2017 11:45:00 AM	Prep Date:	6/28/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.211	0.0100	0.200	0	105	80	120			

Sample ID	LCSD-81152	Batch ID:	81152	TestNo:	SW6020A	Units:	mg/L
SampType:	LCSD	Run ID:	ICP-MS5_170705A	Analysis Date:	7/5/2017 11:47:00 AM	Prep Date:	6/28/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.209	0.0100	0.200	0	104	80	120	0.918	15	

Sample ID	1706277-06A SD	Batch ID:	81152	TestNo:	SW6020A	Units:	mg/L
SampType:	SD	Run ID:	ICP-MS5_170705A	Analysis Date:	7/5/2017 11:52:00 AM	Prep Date:	6/28/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	128	15.0	0	124				2.63	10	
Sodium	130	15.0	0	128				1.10	10	

Sample ID	1706277-06A PDS	Batch ID:	81152	TestNo:	SW6020A	Units:	mg/L
SampType:	PDS	Run ID:	ICP-MS5_170705A	Analysis Date:	7/5/2017 12:10:00 PM	Prep Date:	6/28/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	172	3.00	50.0	124	95.0	80	120			
Sodium	178	3.00	50.0	129	99.4	80	120			

Sample ID	1706277-06A MS	Batch ID:	81152	TestNo:	SW6020A	Units:	mg/L
SampType:	MS	Run ID:	ICP-MS5_170705A	Analysis Date:	7/5/2017 12:12:00 PM	Prep Date:	6/28/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.231	0.100	0.200	0	116	80	120			

Sample ID	1706277-06A MSD	Batch ID:	81152	TestNo:	SW6020A	Units:	mg/L
SampType:	MSD	Run ID:	ICP-MS5_170705A	Analysis Date:	7/5/2017 12:14:00 PM	Prep Date:	6/28/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.236	0.100	0.200	0	118	80	120	2.19	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706277
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170705A

Sample ID	1706277-06A SD	Batch ID:	81152	TestNo:	SW6020A	Units:	mg/L
SampType:	SD	Run ID:	ICP-MS5_170705A	Analysis Date:	7/5/2017 1:27:00 PM	Prep Date:	6/28/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.0250	0.0500	0	0.0197				0	10	

Sample ID	1706277-06A PDS	Batch ID:	81152	TestNo:	SW6020A	Units:	mg/L
SampType:	PDS	Run ID:	ICP-MS5_170705A	Analysis Date:	7/5/2017 1:45:00 PM	Prep Date:	6/28/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.223	0.0100	0.200	0.0197	101	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706277
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170705A

The QC data in batch 81153 applies to the following samples: 1706277-01B, 1706277-02B, 1706277-03B, 1706277-04B, 1706277-05B, 1706277-06B, 1706277-07B, 1706277-08B

Sample ID **1706277-06B SD** Batch ID: **81153** TestNo: **SW6020A** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS5_170705A** Analysis Date: **7/5/2017 11:01:00 AM** Prep Date: **6/29/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.0250	0.0500	0	0.0196				0	10	
Molybdenum	<0.0100	0.0250	0	0				0	10	

Sample ID **1706277-06B PDS** Batch ID: **81153** TestNo: **SW6020A** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS5_170705A** Analysis Date: **7/5/2017 11:19:00 AM** Prep Date: **6/29/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.209	0.0100	0.200	0.0196	94.4	80	120			
Molybdenum	0.182	0.00500	0.200	0	90.9	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706277
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_170627A

The QC data in batch 81132 applies to the following samples: 1706277-01C, 1706277-02C, 1706277-03C, 1706277-04C, 1706277-05C, 1706277-06C, 1706277-07C, 1706277-08C

Sample ID **MB-81132** Batch ID: **81132** TestNo: **M2320 B** Units: **mg/L @ pH 4.27**
SampType: **MBLK** Run ID: **TITRATOR_170627A** Analysis Date: **6/27/2017 8:13:00 AM** Prep Date: **6/27/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0								
Alkalinity, Total (As CaCO3)	<20.0	20.0								

Sample ID **LCS-81132** Batch ID: **81132** TestNo: **M2320 B** Units: **mg/L @ pH 4.14**
SampType: **LCS** Run ID: **TITRATOR_170627A** Analysis Date: **6/27/2017 8:26:00 AM** Prep Date: **6/27/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	52.9	20.0	50.00	0	106	74	129			

Sample ID **1706261-03C-DUP** Batch ID: **81132** TestNo: **M2320 B** Units: **mg/L @ pH 4.52**
SampType: **DUP** Run ID: **TITRATOR_170627A** Analysis Date: **6/27/2017 9:35:00 AM** Prep Date: **6/27/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	239	20.0	0	240.3				0.626	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	239	20.0	0	240.3				0.626	20	

Sample ID **1706277-06C-DUP** Batch ID: **81132** TestNo: **M2320 B** Units: **mg/L @ pH 4.52**
SampType: **DUP** Run ID: **TITRATOR_170627A** Analysis Date: **6/27/2017 12:04:00 PM** Prep Date: **6/27/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	281	20.0	0	286.2				1.98	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	281	20.0	0	286.2				1.98	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

2609 North River Road, Port Allen, Louisiana 70767
(800) 401-4277 -- FAX (225) 381-2996

ARS International, LLC

Laboratory Analysis Report

ARS1-17-01846

Prepared for:

B-Environmental

Kevin Baros
1606 East Brazos Street
Suite D
Victoria, TX 77901

dbenviro@suddenlinkmail.com; cbenviro@suddenlinkmail.com
swbenviro@suddenlinkmail.com

Phone: 361-572-8224
Fax: 361-572-4115

Project Manager Review

Management Review

Notes: ARS International, LLC assumes no liability for the use or the interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

Contact Person: Questions regarding this analytical report should be addressed to:

Project Manager

ProjectManagers@amrad.com

Phone: 225.381.2991
Fax: 225.381.2996

LELAP Cert# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01846
Client Sample ID: S171730743 (BATCH 56830)
Sample Collection Date: 06/21/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01846-001
Date Received: 06/23/17
Report Date: 07/25/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.159	0.121	0.160	0.061	NP	U,Q	pCi/L	ARS-010/EPA 903.0/904.0	07/20/17 8:12	CTRAMEL	106%
Ra-228	0.546	0.680	1.132	0.525	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/13/17 12:00	CTRAMEL	97%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01846
Client Sample ID: S17173074A (BATCH 56830)
Sample Collection Date: 06/21/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01846-002
Date Received: 06/23/17
Report Date: 07/25/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.319	0.153	0.154	0.059	NP	Q	pCi/L	ARS-010/EPA 903.0/904.0	07/20/17 8:12	CTRAMEL	102%
Ra-228	0.765	0.670	1.069	0.494	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/13/17 12:00	CTRAMEL	93%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01846
Client Sample ID: S17173074B (BATCH 56830)
Sample Collection Date: 06/21/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01846-003
Date Received: 06/23/17
Report Date: 07/25/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.245	0.133	0.138	0.051	NP	Q	pCi/L	ARS-010/EPA 903.0/904.0	07/20/17 8:12	CTRAMEL	102%
Ra-228	1.334	0.753	1.096	0.506	NP		pCi/L	ARS-010/EPA 903.0/904.0	07/13/17 12:00	CTRAMEL	93%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01846
Client Sample ID: S17173074C (BATCH 56830)
Sample Collection Date: 06/21/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01846-004
Date Received: 06/23/17
Report Date: 07/25/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.261	0.148	0.181	0.074	NP	Q	pCi/L	ARS-010/EPA 903.0/904.0	07/20/17 8:12	CTRAMEL	106%
Ra-228	0.365	0.718	1.232	0.575	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/13/17 12:00	CTRAMEL	96%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01846
Client Sample ID: S17173074D (BATCH 56830)
Sample Collection Date: 06/21/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01846-005
Date Received: 06/23/17
Report Date: 07/25/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.135	0.131	0.201	0.082	NP	U,Q	pCi/L	ARS-010/EPA 903.0/904.0	07/20/17 8:12	CTRAMEL	106%
Ra-228	1.045	0.754	1.167	0.541	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/13/17 12:00	CTRAMEL	94%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01846
Client Sample ID: S17173074E (BATCH 56830)
Sample Collection Date: 06/21/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01846-006
Date Received: 06/23/17
Report Date: 07/25/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.106	0.127	0.206	0.081	NP	U,Q	pCi/L	ARS-010/EPA 903.0/904.0	07/20/17 8:12	CTRAMEL	88%
Ra-228	-0.226	0.658	1.228	0.569	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/13/17 12:00	CTRAMEL	85%

Project Manager Review

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01847
Client Sample ID: S17173074F (BATCH 56830)
Sample Collection Date: 06/21/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01847-001
Date Received: 06/23/17
Report Date: 07/24/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.108	0.124	0.201	0.082	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/19/17 9:20	SCAUSEY	110%
Ra-228	0.601	0.699	1.156	0.536	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/12/17 12:19	SCAUSEY	104%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01847
Client Sample ID: S17173074G (BATCH 56830)
Sample Collection Date: 06/21/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01847-002
Date Received: 06/23/17
Report Date: 07/24/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.250	0.140	0.155	0.060	NP		pCi/L	ARS-010/EPA 903.0/904.0	07/19/17 9:21	SCAUSEY	107%
Ra-228	0.769	0.710	1.143	0.530	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/12/17 12:19	SCAUSEY	113%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

INTERNATIONAL

QC Results Report

Sample Delivery Group: ARS1-17-01846

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-01381	LCS	RA-226	24.238	3.914	0.106	27.502	N/A	pCi/L	ARS-010/EPA 903	7/20/17 10:11	CT	88	75%-125%
ARS1-B17-01381	LCS	RA-228	39.109	6.492	1.063	39.784	N/A	pCi/L	ARS-010/EPA 904	7/13/17 13:59	CT	98	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-01381	MBL	RA-226	0.270	0.108	0.097	NA		pCi/L	ARS-010/EPA 903	7/20/17 10:11	CT
ARS1-B17-01381	MBL	RA-228	0.702	0.394	0.577	NA		pCi/L	ARS-010/EPA 904	7/13/17 13:59	CT

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-01381	LCSD	RA-226	24.238	3.914	24.422	3.950	N/A	pCi/L	ARS-010/EPA 903	7/20/17 10:11	CT	0.02	< 1
ARS1B17-01381	LCSD	RA-228	39.109	6.492	34.948	5.821	N/A	pCi/L	ARS-010/EPA 904	7/13/17 13:59	CT	0.34	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-01381	LCSD	RA-226	24.238	3.914	24.422	3.950	N/A	pCi/L	ARS-010/EPA 903	7/20/17 10:11	CT	0.03	< 3
ARS1-B17-01381	LCSD	RA-228	39.109	6.492	34.948	5.821	N/A	pCi/L	ARS-010/EPA 904	7/13/17 13:59	CT	0.48	< 3

Matrix Spike

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery(%)	MS Acceptance Range
ARS1-B17-01381	MS	Ra-226	60.395	9.721	0.163	56.063	N/A	pCi/L	ARS-010/EPA 903	7/20/17 10:11	CT	108	60%-140%
ARS1-B17-01381	MS	Ra-228	45.397	7.586	1.443	51.945	N/A	pCi/L	ARS-010/EPA 904	7/13/17 13:59	CT	87	60%-140%
ARS1-B17-01381	MSD	Ra-226	72.092	11.606	0.194	55.902	N/A	pCi/L	ARS-010/EPA 903	7/20/17 10:11	CT	129	60%-140%
ARS1-B17-01381	MSD	Ra-228	49.697	8.365	1.820	52.098	N/A	pCi/L	ARS-010/EPA 904	7/13/17 13:59	CT	95	60%-140%

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

INTERNATIONAL

QC Results Report

Sample Delivery Group: ARS1-17-01847

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-01375	LCS	RA-226	23.217	3.753	0.106	27.545	N/A	pCi/L	ARS-010/EPA 903	7/19/17 9:21	SC	84	75%-125%
ARS1-B17-01375	LCS	RA-228	37.334	6.220	1.089	39.784	N/A	pCi/L	ARS-010/EPA 904	7/19/17 9:21	SC	94	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-01375	MBL	RA-226	0.047	0.059	0.097	NA	U	pCi/L	ARS-010/EPA 903	7/19/17 9:21	SC
ARS1-B17-01375	MBL	RA-228	0.085	0.375	0.664	NA	U	pCi/L	ARS-010/EPA 904	7/19/17 9:21	SC

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-01375	LCSD	RA-226	23.217	3.753	23.497	3.803	N/A	pCi/L	ARS-010/EPA 903	7/19/17 9:21	SC	0.04	< 1
ARS1-B17-01375	LCSD	RA-228	37.334	6.220	36.006	5.998	N/A	pCi/L	ARS-010/EPA 904	7/19/17 9:21	SC	0.11	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-01375	LCSD	RA-226	23.217	3.753	23.497	3.803	N/A	pCi/L	ARS-010/EPA 903	7/19/17 9:21	SC	0.05	< 3
ARS1-B17-01375	LCSD	RA-228	37.334	6.220	36.006	5.998	N/A	pCi/L	ARS-010/EPA 904	7/19/17 9:21	SC	0.15	< 3

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

ARS INTERNATIONAL
2609 North River Road • Port Allen, Louisiana 70767
1 (800) 401-4277 • Fax (225) 381-2998

Notes (Case Narrative):

Comments:

1.0) All MDA/MDC values are calculated on a sample specific basis.
2.0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.
3.0) Data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.
4.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix. Modified analyses are indicated by the subsequent addition of "m" to the procedure number (i.e. 900.0M).
5.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than the actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
6.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228 (Gamma Spectroscopy only).
7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234 (Gamma Spectroscopy only).
8.0) All gamma spectroscopy was performed utilizing high purity germanium detectors (**HPGe**).
9.0) ARS makes every attempt to match sample density to calibrated density; however, in some cases, it is not practical or possible to do so and data results may be affected (Gamma Spectroscopy only).
10.0) Gamma spectroscopy results are calculated values based on the **ORTEC®** GammaVision ENV32 Analysis Engine.
11.0) ACLASS DOD and ISO 17025 certification applies only to the following analytes and methods: Gross Alpha and Gross Beta (EPA 900, SM7110B&C, SW846 9310); Radium 226 (EPA 903, EPA 903.1, SM 7500 Ra-B, SW846 9315); Radium 228 (EPA 904, SM 7500 Ra-B SW846 9320); Iodine-131(EPA 901.1); Uranium by ICPMS (EPA 200.8); Strontium 89/90 (EPA 905, Eichrom SRW01, HASL 300 Sr-03-RC); Tritium (EPA 906, EPA 906M); Gamma Emitters (EPA 901.1, SM7120B, HASL 300 Ga-01-R); Americium-241, Curium 242/244, Plutonium 238/240 and 241, Thorium 228/230/232, Uranium 234/233 and 238 (Eichrom ACW03 VBS); Lead 210 (HASL 300 Pb-01-RC, Eichrom OTW01); Polonium 210 (HASL 300 Po-01-RC, HASL 300 Po-02-RC); Technetium-99 (Eichrom TCW02, Eichrom TCS01M).

Method References:

1.0) **EPA 600/4-80-032**; Prescribed Procedures for the Measurements of Radioactivity in Drinking Water, August 1980.
2.0) **Standard Methods for the Examination of Water and Wastewater** (On-Line Edition)
3.0) **EPA SW-846**; Test Methods for Evaluating Solid Waste, (On-Line edition)
4.0) **EPA 600/4/79-020**; Methods for Chemical Analysis of Water and Waste, March 1983.
5.0) **HASL 300**; The Procedures Manual of the Environmental Measurements Laboratory, Volume I, 28th Edition February, 1997.

Definitions:

CRDL	Contract Required Detection Limit
CSU	Combined Standard Uncertainty
DLC	Decision Level Concentration (ANSI N42.23) or critical level
DO	Duplicate Original
DUP	Method Duplicate
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
MDA	Minimum Detectable Activity
MDC	(Minimum Detectable Concentration) minimum concentration of the analyte that ARS can detect utilizing the specific analysis
MBL	Method Blank
MS/MSD	Matrix Spike/Matrix Spike Duplicate
N/A	Not Applicable
NP	Not Provided
NR	Not Referenced
LOD	Limit of Detection
LOQ	Limit of Quantitation

Data Qualifiers:

B	The analyte is found in both the associated method blank and the sample. This flag indicates probable blank contamination.
D	Sample analysis accomplished through dilution.
J	The reported result is an estimated value above the limit of detection but outside of quantitation range (e.g., matrix interference was observed).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).
U	Activity is below the MDC, MDA, MDL, or LOD
N	The analyte is a tentatively identified compound using mass spectrometry or any non-customer requested compounds that are tentatively identified.
*	LCS/LCSD or MS/MSD fails RPD criteria.
S	Spike
SC	Subcontracted out to another qualified laboratory
H	Holding time exceeded

LELAP Cert# 01949 ***NELAP Cert# E87558***

ARS-059-010
Revision: 9.1
Revision Date: 03-14-2017

B Environmental Laboratory, LLC
1606 E Brazos Suite D Victoria, Texas 77901 ph. (361) 572-8224

Chain Of Custody Rec

Batch # 56830 | TEMP UN-C: 4.1 | Page 1 of 2 | THERM ID# 3 | TEMP Corr: 3.9

Customer / Report Information

Name: Coleto Creek Power
Attention: Rick Coleman
Address: P.O. Box 8; Fannin, TX 77960

Billing Information X Check box if Billing is the same as Report Information

Address:
Attention: PO #
Project: CCR Sampling
Comments:

Phone: 361-788-5145 | FAX:
EMAIL: richard.coleman@dynegy.com

Requested Analysis (A, B, C, D, E, F) | Completed By laboratory

Sample Information

Collected By:

Client / Field Sample ID	Collected Date	Collected Time	Matrix (G = Grab, C = Composite)	Matrix (DW - Drinking H20, S - Solid, WW - Waste H20, SL - Sludge, L - Liquid, w - Water)	Container TYPE	Container NUMBER	Container Size	Preservative	D Metals*	A Cl, F*, SO4	A pH	C TDS	E Ra226 & Ra228	B Alk:Tot, Carb, BiCarb	F Diss Li & Mo	Custody Seals Present (Yes / No)	Intact (Yes / No)	LAB Sample Number
PS3	6-21-17	845	G	WW	P	6	1L 500mL 250mL	H2SO4 H3PO4 ICE HNO3 NaOH HCL Na2SO3	X	X	X	X	X	X	X			S171730743
mw-11		913	G	WW	P	6	1L 500mL 250ml	H2SO4 H3PO4 ICE HNO3 NaOH HCL Na2SO3	X	X	X	X	X	X	X			S17173074A
mw-9		1014	G	WW	P	6	1L 500mL 250mL	H2SO4 H3PO4 ICE HNO3 NaOH HCL Na2SO3	X	X	X	X	X	X	X			S17173074B
mw-9A		1044	G	WW	P	6	1L 500mL 250mL	H2SO4 H3PO4 ICE HNO3 NaOH HCL Na2SO3	X	X	X	X	X	X	X			S17173074C
MW5-MS		1112	G	WW	P	6	1L 500mL 250mL	H2SO4 H3PO4 ICE HNO3 NaOH HCL Na2SO3	X	X	X	X	X	X	X			
mw5-MSD		1112	G	WW	P	6	1L 500mL 250ml	H2SO4 H3PO4 ICE HNO3 NaOH HCL Na2SO3	X	X	X	X	X	X	X			
Dup 2			G	WW	P	6	1L 500mL 250mL	H2SO4 H3PO4 ICE HNO3 NaOH HCL Na2SO3	X	X	X	X	X	X	X			S17173074D

Required Turnaround: ☒ Routine (6-10 Business days) | Expedite / Rush: ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business days ☐ 5 Business days ☐ Other | REMARKS:

Surcharge will apply to RUSH TAT Authorized BY: | Container Type: P=Plastic, G=Glass, V=Voa, O=Other | Carrier ID :

Relinquished By:		Date: 6-21-17	Time: 1625	Received By:		Date: 6-21-17	Time: 16:25
Relinquished By:		Date:	Time:	Received By:		Date:	Time:
Relinquished By		Date:	Time:	Received By:		Date:	Time:

FLuoride: MAL 0.25 mg/L Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Mg,K,Na, & Hg

B Environmental Laboratory, LLC
1606 E Brazos Suite D Victoria, Texas 77901 ph. (361) 572-8224

Chain Of Custody Rec

Batch # 56830 | TEMP UN-C: 4.1 | Page 2 of 2 | THERM ID# 3 | TEMP Corr: 3.9

X Check box if Billing is the same as Report Information

Customer / Report Information

Name: Coleto Creek Power
Attention: Rick Coleman
Address: P.O. Box 8; Fannin, TX 77960

Billing Information

Address:
Attention: PO #
Project: CCR Sampling
Comments:

Phone: 361-788-5145 | FAX:
EMAIL: richard.coleman@dynegy.com

Requested Analysis | Completed By laboratory

Sample Information				Matrix	Container			Preservative													Custody Seals Present / Intact / LAB Sample Number
Client / Field Sample ID	Collected Date	Collected Time	G = Grab C = Composite	DW - Drinking H20, S - Solid, WW - Waste H20, SL - Sludge, L - Liquid, w - Water	TYPE	NUMBER	Size								D Metals*	A Cl, F*, SO4	A pH	C TDS	E Ra226 & Ra228	B Alk: Tot, Carb, BiCarb	F Diss Li & Mo			
mw-5	6-21-17	1112	G	WW	P	6	1L / 500mL / 250mL	☐ H2SO4	☒ HNO3						X	X	X	X	X	X	X			S17173074E
mw-10	↓	1338	G	WW	P	6	1L / 500mL / 250mL	☐ H2SO4	☒ HNO3						X	X	X	X	X	X	X			S17173074F
mw-10A	↓	1415	G	WW	P	6	1L / 500mL / 250mL	☐ H2SO4	☒ HNO3						X	X	X	X	X	X	X			S17173074G
			G	WW	P	6	1L / 500mL / 250mL	☐ H2SO4	☒ HNO3						X	X	X	X	X	X	X			
			G	WW	P	6	1L / 500mL / 250mL	☐ H2SO4	☒ HNO3						X	X	X	X	X	X	X			
			G	WW	P	6	1L / 500mL / 250mL	☐ H2SO4	☒ HNO3						X	X	X	X	X	X	X			
			G	WW	P	6	1L / 500mL / 250mL	☐ H2SO4	☒ HNO3						X	X	X	X	X	X	X			

Required Turnaround: ☒ Routine (6-10 Business days) | Expedite / Rush: ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business days ☐ 5 Business days ☐ Other | REMARKS:

Surcharge will apply to RUSH TAT Authorized BY: | Container Type: P=Plastic, G=Glass, V=Voa, O=Other | Carrier ID :

Relinquished By:		Date:	6-21-17	Time:	1625	Received By:	Date:	6-21-17	Time: 16:25
Relinquished By:		Date:		Time:		Received By:	Date:		Time:
Relinquished By		Date:		Time:		Received By:	Date:		Time:

FLuoride: MAL 0.25 mg/L Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Mg,K,Na, & Hg

BatchNo: 56859

SAMPLE REPORT

T104704328-17-14

Business

Coleto Creek Power - R Coleman
PO Box 8
Fannin TX 77960
Att: Rick Coleman

Laboratory

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901
ph. 361-572-8224

Reference Information

Project: CCR Sampling

Printed: Wednesday, July 26, 2017

Re: Coleto Creek Power - R Coleman

Dear: Rick Coleman

Attached are the results for sample(s) received on 6/22/2017

The analytical results relate only to the samples tested.
All supporting quality data meets the requirements of NELAC unless noted in the case narrative section of the report.

This report contains 24 pages (including the cover page)

If you have any questions concerning this report, please do not hesitate to call (361) 572-8224 or Fax us at (361) 572-4115

Respectfully Submitted,

Kevin Baros

Laboratory Director

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56859

Batch No: 56859

Sample Receipt Checklist

Date Received: 6/22/2017

Project	CCR Sampling	Received By:	Vahrenkamp

Login completed by: Vahrenkamp (Signature) 6/22/2017 (LoginDate:)

Carrier Name: Walk In

Shipping container/cooler in good condition?	☑ YES	☐ NO	☐ Not Present	
Custody seals intact on shipping container/cooler?	☐ YES	☐ NO	☑ Not Present	
Custody seals intact on sample bottles?	☐ YES	☐ NO	☑ Not Present	
Chain of Custody present?	☑ YES	☐ NO		
Chain of Custody signed when relinquished and received	☑ YES	☐ NO		
Chain of Custody agrees with sample labels?	☑ YES	☐ NO		
Samples in proper container/bottles?	☑ YES	☐ NO		
Sample containers intact?	☑ YES	☐ NO		
Sufficient sample volume for indicated tests?	☑ YES	☐ NO		
All samples received within holding times?	☑ YES	☐ NO		
Container/Temp Blank - temperature in compliance?	☑ YES	☐ NO	>0 <6 °C On Ice	
Water - VOA vials have zero headspace? Bubble < 6mm?	☐ YES	☐ NO	☑ No VOA Vials submitted	
Water - pH acceptable upon receipt?	☑ YES	☐ NO	☐ Not Applicable	

*TEMP 4.1/3.9 | pH Adjusted? No | Checked By L. Vahrenkamp

Any No and/or N/A (not applicable) response must be detailed in the comments section below.

Client contacted		PersonContacted	
Contacted by:		Date Contacted:	

Regarding

Comments

Therm #3. HNO3 Lot # 2-42-12. pH Paper Lot # 2-25-6.

Corrective Action

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56859

Sample Report Information

Sample ID:	S171731617	Client ID:	MW-6	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #6
Notes:

Batch No: 56859
Sampled: 6/22/2017 9:15 AM
Type: Grab
Matrix: Wastewater

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	69	mg/L	EPA 300	K Baros	6/22/2017 22:16	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	185	mg/L	SM 2320 B		6/27/2017 14:47	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/27/2017 14:47	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	185	mg/L	SM 2320 B		6/27/2017 14:47	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.37	mg/L	EPA 300	K Baros	6/22/2017 22:16	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.1	SU	SM 4500-H+B	C Watts	6/22/2017 16:25	2	2			☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	510	mg/L	SM2540C	C Watts	6/27/2017 10:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	c	#			7/3/2017 16:05					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	100	mg/L	EPA 300	K Baros	6/22/2017 22:16	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	c	#			7/19/2017 9:21					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56859

Sample Report Information

Sample ID:	S171731618	Client ID:	MW-7	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #6
Notes:

Batch No: 56859
Sampled: 6/22/2017 10:14 AM

Type: Grab
Matrix: Wastewater

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	90	mg/L	EPA 300	K Baros	6/22/2017 22:55	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	253	mg/L	SM 2320 B		6/27/2017 15:04	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/27/2017 15:04	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	253	mg/L	SM 2320 B		6/27/2017 15:04	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.61	mg/L	EPA 300	K Baros	6/22/2017 22:55	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.18	SU	SM 4500-H+B	C Watts	6/22/2017 16:25	2	2			☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	537	mg/L	SM2540C	C Watts	6/27/2017 10:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/3/2017 16:06					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	75	mg/L	EPA 300	K Baros	6/22/2017 22:55	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/19/2017 9:21					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56859

QA Summary Report

Parameter	ID	Result	Ref Value	Amt Added	LOQ	Qualifer	Control	Flag	Comments
.Method Blank									
Solids, Total Dissolved	**Q171801020**	<25mg/L	0		10		25		Blank Acceptable.
6/27/2017 10:30									
Duplicate									
pH (Standard Units)	**Q171741114**	7.12SU	7.1		2	0.3%	20		Duplicate RPD Acceptable.
6/22/2017 16:25									
Solids, Total Dissolved	**Q171801022**	800mg/L	813		10	1.6%	20		Duplicate RPD Acceptable.
6/27/2017 10:30									
Laboratory Control Standard									
pH (Standard Units)	**Q171741113**	6.98SU	7		2	99.7%	80 - 120		Standard Recovery Acceptable.
6/22/2017 16:25						0.3%	20		Standard RPD Acceptable.

Flag and Qualifier Legend

Negative - Result Detected
Caution - Problem Detected
Warning - Null Value

MDL = Method Detection Limit ***DF = Dilution Factor***
LOQ = Limit of Quantitation ***j = Analyte detected between MDL and LOQ***
S = surrogate standard out of limit ***H = sample out of hold time***

MS, MSD, RPD- Failure may occur due to matrix interference, data released per QA plan

Wednesday, July 26, 2017 **B Environmental - LDMS QA Report Summary**

Note: THANK YOU!

DHL Analytical, Inc. **Date:** *05-Jul-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Lab Order: 1706278

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition and Standard Methods.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives except where noted in the following. For Dissolved Metals Analysis, the recovery and RPD of Lithium for the Matrix Spike and Matrix Spike Duplicate (1706277-06 MS/MSD) were outside of the method control limits. This is flagged accordingly in the QC Summary Report. This analyte was within method control limits in the associated LCS. No further corrective action was taken.

For Total Metals Analysis, the recoveries of Calcium and Sodium for the Matrix Spike and Matrix Spike Duplicate (1706277-06 MS/MSD) were outside of the method control limits. These are flagged accordingly in the QC Summary Report. These analytes were within method control limits in the associated LCS. No further corrective action was taken.

For Total Metals Analysis, the RPD of Boron for the Serial Dilution (1706277-06 SD) was above the method control limit. This is flagged accordingly in the QC Summary Report. This analyte was within method control limits in the associated Post Digestion Spike. No further corrective action was taken.

The Dissolved/Total Metals Analysis, the result of Dissolved Lithium for Sample MW-7 was slightly higher than the result of Total Lithium. than the total Iron and Manganese. The results were within acceptable analytical variation limits. No further corrective action was taken.

DHL Analytical, Inc.

Date: *05-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-6
Project:	Coleto Creek Power	**Lab ID:**	1706278-01
Project No:	CCR (56859)	**Alternate ID:**	S171731617
Lab Order:	1706278	**Collection Date:**	06/22/17 09:15 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **RO**
Dissolved Lithium	0.00944	0.00500	0.0100	J	mg/L	1	07/05/17 12:56 PM
Dissolved Molybdenum	0.00754	0.00200	0.00500		mg/L	1	06/30/17 01:16 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **RO**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	07/03/17 04:05 PM
Arsenic	0.00764	0.00200	0.00500		mg/L	1	07/03/17 04:05 PM
Barium	0.0830	0.00300	0.0100		mg/L	1	07/03/17 04:05 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	07/03/17 04:05 PM
Boron	1.97	0.0100	0.0300		mg/L	1	07/03/17 04:05 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	07/03/17 04:05 PM
Calcium	79.9	1.00	3.00		mg/L	10	07/05/17 12:08 PM
Chromium	0.00244	0.00200	0.00500	J	mg/L	1	07/03/17 04:05 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	07/03/17 04:05 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	07/03/17 04:05 PM
Lithium	0.0109	0.00500	0.0100		mg/L	1	07/05/17 01:41 PM
Magnesium	9.57	0.100	0.300		mg/L	1	07/03/17 04:05 PM
Molybdenum	0.00840	0.00200	0.00500		mg/L	1	07/03/17 04:05 PM
Potassium	1.03	0.100	0.300		mg/L	1	07/03/17 04:05 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	07/03/17 04:05 PM
Sodium	72.0	1.00	3.00		mg/L	10	07/05/17 12:08 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	07/03/17 04:05 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/30/17 11:04 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	185	10.0	20.0		mg/L @ pH 4.52	1	06/27/17 02:47 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	06/27/17 02:47 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	06/27/17 02:47 PM
Alkalinity, Total (As CaCO3)	185	20.0	20.0		mg/L @ pH 4.52	1	06/27/17 02:47 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *05-Jul-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (56859)
Lab Order: 1706278

Client Sample ID: MW-7
Lab ID: 1706278-02
Alternate ID: S171731618
Collection Date: 06/22/17 10:14 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **RO**
Dissolved Lithium	0.0114	0.00500	0.0100		mg/L	1	07/05/17 12:58 PM
Dissolved Molybdenum	0.00909	0.00200	0.00500		mg/L	1	06/30/17 01:18 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **RO**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	07/03/17 04:06 PM
Arsenic	0.00961	0.00200	0.00500		mg/L	1	07/03/17 04:06 PM
Barium	0.0901	0.00300	0.0100		mg/L	1	07/03/17 04:06 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	07/03/17 04:06 PM
Boron	1.05	0.0100	0.0300		mg/L	1	07/03/17 04:06 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	07/03/17 04:06 PM
Calcium	73.8	1.00	3.00		mg/L	10	07/05/17 12:25 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	07/03/17 04:06 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	07/03/17 04:06 PM
Lead	0.000590	0.000300	0.00100	J	mg/L	1	07/03/17 04:06 PM
Lithium	0.0111	0.00500	0.0100		mg/L	1	07/05/17 01:43 PM
Magnesium	10.5	0.100	0.300		mg/L	1	07/03/17 04:06 PM
Molybdenum	0.00972	0.00200	0.00500		mg/L	1	07/03/17 04:06 PM
Potassium	1.19	0.100	0.300		mg/L	1	07/03/17 04:06 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	07/03/17 04:06 PM
Sodium	114	1.00	3.00		mg/L	10	07/05/17 12:25 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	07/03/17 04:06 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/30/17 11:07 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	253	10.0	20.0		mg/L @ pH 4.53	1	06/27/17 03:04 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	06/27/17 03:04 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	06/27/17 03:04 PM
Alkalinity, Total (As CaCO3)	253	20.0	20.0		mg/L @ pH 4.53	1	06/27/17 03:04 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc. **Date:** *05-Jul-17*

CLIENT: B-Environmental
Work Order: 1706278
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_170630A

The QC data in batch 81155 applies to the following samples: 1706278-01A, 1706278-02A

Sample ID	MB-81155	Batch ID:	81155	TestNo:	SW7470A	Units:	mg/L
SampType:	MBLK	Run ID:	CETAC2_HG_170630A	Analysis Date:	6/30/2017 10:10:29 AM	Prep Date:	6/28/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.0000800	0.000200								

Sample ID	LCS-81155	Batch ID:	81155	TestNo:	SW7470A	Units:	mg/L
SampType:	LCS	Run ID:	CETAC2_HG_170630A	Analysis Date:	6/30/2017 10:15:00 AM	Prep Date:	6/28/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00216	0.000200	0.00200	0	108	85	115			

Sample ID	LCSD-81155	Batch ID:	81155	TestNo:	SW7470A	Units:	mg/L
SampType:	LCSD	Run ID:	CETAC2_HG_170630A	Analysis Date:	6/30/2017 10:17:17 AM	Prep Date:	6/28/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00204	0.000200	0.00200	0	102	85	115	5.71	15	

Sample ID	1706246-05B SD	Batch ID:	81155	TestNo:	SW7470A	Units:	mg/L
SampType:	SD	Run ID:	CETAC2_HG_170630A	Analysis Date:	6/30/2017 10:33:08 AM	Prep Date:	6/28/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.000400	0.00100	0	0				0	10	

Sample ID	1706246-05B PDS	Batch ID:	81155	TestNo:	SW7470A	Units:	mg/L
SampType:	PDS	Run ID:	CETAC2_HG_170630A	Analysis Date:	6/30/2017 10:35:23 AM	Prep Date:	6/28/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00245	0.000200	0.00250	0	98.0	85	115			

Sample ID	1706246-05B MS	Batch ID:	81155	TestNo:	SW7470A	Units:	mg/L
SampType:	MS	Run ID:	CETAC2_HG_170630A	Analysis Date:	6/30/2017 10:37:39 AM	Prep Date:	6/28/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00206	0.000200	0.00200	0	103	80	120			

Sample ID	1706246-05B MSD	Batch ID:	81155	TestNo:	SW7470A	Units:	mg/L
SampType:	MSD	Run ID:	CETAC2_HG_170630A	Analysis Date:	6/30/2017 10:39:55 AM	Prep Date:	6/28/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00202	0.000200	0.00200	0	101	80	120	1.96	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706278
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170630A

The QC data in batch 81153 applies to the following samples: 1706278-01B, 1706278-02B

Sample ID	MB-81153	Batch ID:	81153	TestNo:	SW6020A	Units:	mg/L
SampType:	MBLK	Run ID:	ICP-MS5_170630A	Analysis Date:	6/30/2017 11:47:00 AM	Prep Date:	6/29/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.00500	0.0100								
Molybdenum	<0.00200	0.00500								

Sample ID	LCS-81153	Batch ID:	81153	TestNo:	SW6020A	Units:	mg/L
SampType:	LCS	Run ID:	ICP-MS5_170630A	Analysis Date:	6/30/2017 11:49:00 AM	Prep Date:	6/29/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.214	0.0100	0.200	0	107	80	120			
Molybdenum	0.188	0.00500	0.200	0	93.8	80	120			

Sample ID	LCSD-81153	Batch ID:	81153	TestNo:	SW6020A	Units:	mg/L
SampType:	LCSD	Run ID:	ICP-MS5_170630A	Analysis Date:	6/30/2017 11:51:00 AM	Prep Date:	6/29/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.215	0.0100	0.200	0	108	80	120	0.739	15	
Molybdenum	0.192	0.00500	0.200	0	95.9	80	120	2.14	15	

Sample ID	1706277-06B MS	Batch ID:	81153	TestNo:	SW6020A	Units:	mg/L
SampType:	MS	Run ID:	ICP-MS5_170630A	Analysis Date:	6/30/2017 12:17:00 PM	Prep Date:	6/29/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.250	0.500	0.200	0	0	80	120			S
Molybdenum	0.188	0.250	0.200	0	93.8	80	120			

Sample ID	1706277-06B MSD	Batch ID:	81153	TestNo:	SW6020A	Units:	mg/L
SampType:	MSD	Run ID:	ICP-MS5_170630A	Analysis Date:	6/30/2017 12:19:00 PM	Prep Date:	6/29/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.265	0.500	0.200	0	133	80	120	200	15	SR
Molybdenum	0.188	0.250	0.200	0	93.8	80	120	0.026	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706278
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170703B

The QC data in batch 81152 applies to the following samples: 1706278-01A, 1706278-02A

Sample ID **MB-81152** Batch ID: **81152** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS5_170703B** Analysis Date: **7/3/2017 2:47:00 PM** Prep Date: **6/28/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.000800	0.00250								
Arsenic	<0.00200	0.00500								
Barium	<0.00300	0.0100								
Beryllium	<0.000300	0.00100								
Boron	<0.0100	0.0300								
Cadmium	<0.000300	0.00100								
Calcium	<0.100	0.300								
Chromium	<0.00200	0.00500								
Cobalt	<0.00300	0.00500								
Lead	<0.000300	0.00100								
Magnesium	<0.100	0.300								
Molybdenum	<0.00200	0.00500								
Potassium	<0.100	0.300								
Selenium	<0.00200	0.00500								
Sodium	<0.100	0.300								
Thallium	<0.000500	0.00150								

Sample ID **LCS-81152** Batch ID: **81152** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS5_170703B** Analysis Date: **7/3/2017 2:49:00 PM** Prep Date: **6/28/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.205	0.00250	0.200	0	103	80	120			
Arsenic	0.202	0.00500	0.200	0	101	80	120			
Barium	0.211	0.0100	0.200	0	105	80	120			
Beryllium	0.216	0.00100	0.200	0	108	80	120			
Boron	0.211	0.0300	0.200	0	106	80	120			
Cadmium	0.215	0.00100	0.200	0	108	80	120			
Calcium	5.17	0.300	5.00	0	103	80	120			
Chromium	0.206	0.00500	0.200	0	103	80	120			
Cobalt	0.209	0.00500	0.200	0	105	80	120			
Lead	0.196	0.00100	0.200	0	97.8	80	120			
Magnesium	5.17	0.300	5.00	0	103	80	120			
Molybdenum	0.209	0.00500	0.200	0	104	80	120			
Potassium	4.86	0.300	5.00	0	97.1	80	120			
Selenium	0.201	0.00500	0.200	0	100	80	120			
Sodium	5.32	0.300	5.00	0	106	80	120			
Thallium	0.198	0.00150	0.200	0	98.8	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706278
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170703B

Sample ID LCSD-81152	Batch ID: 81152	TestNo: SW6020A	Units: mg/L
SampType: LCSD	Run ID: ICP-MS5_170703B	Analysis Date: 7/3/2017 2:51:00 PM	Prep Date: 6/28/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.207	0.00250	0.200	0	103	80	120	0.738	15	
Arsenic	0.203	0.00500	0.200	0	102	80	120	0.488	15	
Barium	0.208	0.0100	0.200	0	104	80	120	1.18	15	
Beryllium	0.214	0.00100	0.200	0	107	80	120	0.937	15	
Boron	0.210	0.0300	0.200	0	105	80	120	0.533	15	
Cadmium	0.214	0.00100	0.200	0	107	80	120	0.787	15	
Calcium	5.21	0.300	5.00	0	104	80	120	0.724	15	
Chromium	0.207	0.00500	0.200	0	104	80	120	0.466	15	
Cobalt	0.212	0.00500	0.200	0	106	80	120	1.15	15	
Lead	0.197	0.00100	0.200	0	98.3	80	120	0.540	15	
Magnesium	5.17	0.300	5.00	0	103	80	120	0.005	15	
Molybdenum	0.208	0.00500	0.200	0	104	80	120	0.620	15	
Potassium	4.87	0.300	5.00	0	97.4	80	120	0.260	15	
Selenium	0.199	0.00500	0.200	0	99.5	80	120	0.800	15	
Sodium	5.32	0.300	5.00	0	106	80	120	0.029	15	
Thallium	0.199	0.00150	0.200	0	99.6	80	120	0.765	15	

Sample ID 1706277-06A SD	Batch ID: 81152	TestNo: SW6020A	Units: mg/L
SampType: SD	Run ID: ICP-MS5_170703B	Analysis Date: 7/3/2017 2:56:00 PM	Prep Date: 6/28/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.00400	0.0125	0	0				0	10	
Arsenic	<0.0100	0.0250	0	0.00917				0	10	
Barium	0.0743	0.0500	0	0.0767				3.18	10	
Beryllium	<0.00150	0.00500	0	0				0	10	
Boron	0.140	0.150	0	0.122				14.3	10	R
Cadmium	<0.00150	0.00500	0	0				0	10	
Chromium	<0.0100	0.0250	0	0				0	10	
Cobalt	<0.0150	0.0250	0	0				0	10	
Lead	<0.00150	0.00500	0	0				0	10	
Magnesium	23.7	1.50	0	23.3				1.84	10	
Molybdenum	<0.0100	0.0250	0	0				0	10	
Potassium	1.45	1.50	0	1.44				1.05	10	
Selenium	<0.0100	0.0250	0	0				0	10	
Thallium	<0.00250	0.00750	0	0				0	10	

Sample ID 1706277-06A PDS	Batch ID: 81152	TestNo: SW6020A	Units: mg/L
SampType: PDS	Run ID: ICP-MS5_170703B	Analysis Date: 7/3/2017 3:21:00 PM	Prep Date: 6/28/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.201	0.00250	0.200	0	101	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706278
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170703B

Sample ID 1706277-06A PDS	Batch ID: 81152	TestNo: SW6020A	Units: mg/L
SampType: PDS	Run ID: ICP-MS5_170703B	Analysis Date: 7/3/2017 3:21:00 PM	Prep Date: 6/28/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.206	0.00500	0.200	0.00917	98.6	80	120			
Barium	0.268	0.0100	0.200	0.0767	95.8	80	120			
Beryllium	0.218	0.00100	0.200	0	109	80	120			
Boron	0.360	0.0300	0.200	0.122	119	80	120			
Cadmium	0.204	0.00100	0.200	0	102	80	120			
Chromium	0.209	0.00500	0.200	0	105	80	120			
Cobalt	0.201	0.00500	0.200	0	101	80	120			
Lead	0.194	0.00100	0.200	0	96.8	80	120			
Magnesium	27.5	0.300	5.00	23.3	84.4	80	120			
Molybdenum	0.198	0.00500	0.200	0	99.0	80	120			
Potassium	5.99	0.300	5.00	1.44	91.1	80	120			
Selenium	0.185	0.00500	0.200	0	92.6	80	120			
Thallium	0.194	0.00150	0.200	0	97.0	80	120			

Sample ID 1706277-06A MS	Batch ID: 81152	TestNo: SW6020A	Units: mg/L
SampType: MS	Run ID: ICP-MS5_170703B	Analysis Date: 7/3/2017 3:23:00 PM	Prep Date: 6/28/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.214	0.00250	0.200	0	107	80	120			
Arsenic	0.207	0.00500	0.200	0.00917	98.7	80	120			
Barium	0.288	0.0100	0.200	0.0767	106	80	120			
Beryllium	0.216	0.00100	0.200	0	108	80	120			
Boron	0.338	0.0300	0.200	0.122	108	80	120			
Cadmium	0.214	0.00100	0.200	0	107	80	120			
Calcium	126	0.300	5.00	126	2.44	80	120			S
Chromium	0.203	0.00500	0.200	0	102	80	120			
Cobalt	0.200	0.00500	0.200	0	99.8	80	120			
Lead	0.195	0.00100	0.200	0	97.4	80	120			
Magnesium	27.6	0.300	5.00	23.3	87.1	80	120			
Molybdenum	0.216	0.00500	0.200	0	108	80	120			
Potassium	6.09	0.300	5.00	1.44	93.1	80	120			
Selenium	0.191	0.00500	0.200	0	95.4	80	120			
Sodium	127	0.300	5.00	127	12.9	80	120			S
Thallium	0.198	0.00150	0.200	0	99.0	80	120			

Sample ID 1706277-06A MSD	Batch ID: 81152	TestNo: SW6020A	Units: mg/L
SampType: MSD	Run ID: ICP-MS5_170703B	Analysis Date: 7/3/2017 3:25:00 PM	Prep Date: 6/28/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.211	0.00250	0.200	0	105	80	120	1.61	15	
Arsenic	0.204	0.00500	0.200	0.00917	97.2	80	120	1.39	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706278
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170703B

Sample ID **1706277-06A MSD** Batch ID: **81152** TestNo: **SW6020A** Units: **mg/L**
SampType: **MSD** Run ID: **ICP-MS5_170703B** Analysis Date: **7/3/2017 3:25:00 PM** Prep Date: **6/28/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.283	0.0100	0.200	0.0767	103	80	120	1.84	15	
Beryllium	0.215	0.00100	0.200	0	107	80	120	0.451	15	
Boron	0.348	0.0300	0.200	0.122	113	80	120	2.72	15	
Cadmium	0.211	0.00100	0.200	0	105	80	120	1.70	15	
Calcium	124	0.300	5.00	126	-40.7	80	120	1.73	15	S
Chromium	0.202	0.00500	0.200	0	101	80	120	0.581	15	
Cobalt	0.200	0.00500	0.200	0	100	80	120	0.144	15	
Lead	0.192	0.00100	0.200	0	95.8	80	120	1.72	15	
Magnesium	27.3	0.300	5.00	23.3	80.6	80	120	1.18	15	
Molybdenum	0.212	0.00500	0.200	0	106	80	120	1.83	15	
Potassium	5.98	0.300	5.00	1.44	91.0	80	120	1.75	15	
Selenium	0.190	0.00500	0.200	0	94.8	80	120	0.609	15	
Sodium	127	0.300	5.00	127	5.50	80	120	0.290	15	S
Thallium	0.194	0.00150	0.200	0	97.0	80	120	2.06	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706278
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170705A

The QC data in batch 81152 applies to the following samples: 1706278-01A, 1706278-02A

Sample ID	MB-81152	Batch ID:	81152	TestNo:	SW6020A	Units:	mg/L
SampType:	MBLK	Run ID:	ICP-MS5_170705A	Analysis Date:	7/5/2017 11:43:00 AM	Prep Date:	6/28/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.00500	0.0100								

Sample ID	LCS-81152	Batch ID:	81152	TestNo:	SW6020A	Units:	mg/L
SampType:	LCS	Run ID:	ICP-MS5_170705A	Analysis Date:	7/5/2017 11:45:00 AM	Prep Date:	6/28/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.211	0.0100	0.200	0	105	80	120			

Sample ID	LCSD-81152	Batch ID:	81152	TestNo:	SW6020A	Units:	mg/L
SampType:	LCSD	Run ID:	ICP-MS5_170705A	Analysis Date:	7/5/2017 11:47:00 AM	Prep Date:	6/28/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.209	0.0100	0.200	0	104	80	120	0.918	15	

Sample ID	1706277-06A SD	Batch ID:	81152	TestNo:	SW6020A	Units:	mg/L
SampType:	SD	Run ID:	ICP-MS5_170705A	Analysis Date:	7/5/2017 11:52:00 AM	Prep Date:	6/28/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	128	15.0	0	124				2.63	10	
Sodium	130	15.0	0	128				1.10	10	

Sample ID	1706277-06A PDS	Batch ID:	81152	TestNo:	SW6020A	Units:	mg/L
SampType:	PDS	Run ID:	ICP-MS5_170705A	Analysis Date:	7/5/2017 12:10:00 PM	Prep Date:	6/28/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	172	3.00	50.0	124	95.0	80	120			
Sodium	178	3.00	50.0	129	99.4	80	120			

Sample ID	1706277-06A MS	Batch ID:	81152	TestNo:	SW6020A	Units:	mg/L
SampType:	MS	Run ID:	ICP-MS5_170705A	Analysis Date:	7/5/2017 12:12:00 PM	Prep Date:	6/28/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.231	0.100	0.200	0	116	80	120			

Sample ID	1706277-06A MSD	Batch ID:	81152	TestNo:	SW6020A	Units:	mg/L
SampType:	MSD	Run ID:	ICP-MS5_170705A	Analysis Date:	7/5/2017 12:14:00 PM	Prep Date:	6/28/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.236	0.100	0.200	0	118	80	120	2.19	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706278
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170705A

Sample ID 1706277-06A SD	Batch ID: 81152	TestNo: SW6020A	Units: mg/L
SampType: SD	Run ID: ICP-MS5_170705A	Analysis Date: 7/5/2017 1:27:00 PM	Prep Date: 6/28/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.0250	0.0500	0	0.0197				0	10	

Sample ID 1706277-06A PDS	Batch ID: 81152	TestNo: SW6020A	Units: mg/L
SampType: PDS	Run ID: ICP-MS5_170705A	Analysis Date: 7/5/2017 1:45:00 PM	Prep Date: 6/28/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.223	0.0100	0.200	0.0197	101	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706278
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170705A

The QC data in batch 81153 applies to the following samples: 1706278-01B, 1706278-02B

Sample ID **1706277-06B SD** Batch ID: **81153** TestNo: **SW6020A** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS5_170705A** Analysis Date: **7/5/2017 11:01:00 AM** Prep Date: **6/29/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.0250	0.0500	0	0.0196				0	10	
Molybdenum	<0.0100	0.0250	0	0				0	10	

Sample ID **1706277-06B PDS** Batch ID: **81153** TestNo: **SW6020A** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS5_170705A** Analysis Date: **7/5/2017 11:19:00 AM** Prep Date: **6/29/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.209	0.0100	0.200	0.0196	94.4	80	120			
Molybdenum	0.182	0.00500	0.200	0	90.9	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706278
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_170627A

The QC data in batch 81147 applies to the following samples: 1706278-01C, 1706278-02C

Sample ID **MB-81147** Batch ID: **81147** TestNo: **M2320 B** Units: **mg/L @ pH 4.22**
SampType: **MBLK** Run ID: **TITRATOR_170627A** Analysis Date: **6/27/2017 2:36:00 PM** Prep Date: **6/27/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0								
Alkalinity, Total (As CaCO3)	<20.0	20.0								

Sample ID **LCS-81147** Batch ID: **81147** TestNo: **M2320 B** Units: **mg/L @ pH 4.15**
SampType: **LCS** Run ID: **TITRATOR_170627A** Analysis Date: **6/27/2017 2:40:00 PM** Prep Date: **6/27/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	51.0	20.0	50.00	0	102	74	129			

Sample ID **1706278-01C-DUP** Batch ID: **81147** TestNo: **M2320 B** Units: **mg/L @ pH 4.51**
SampType: **DUP** Run ID: **TITRATOR_170627A** Analysis Date: **6/27/2017 2:54:00 PM** Prep Date: **6/27/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	184	20.0	0	184.9				0.488	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	184	20.0	0	184.9				0.488	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

2609 North River Road, Port Allen, Louisiana 70767
(800) 401-4277 -- FAX (225) 381-2996

ARS International, LLC

Laboratory Analysis Report

ARS1-17-01848

Prepared for:

B-Environmental

Kevin Baros
1606 East Brazos Street
Suite D
Victoria, TX 77901

dbenviro@suddenlinkmail.com; cbenviro@suddenlinkmail.com
swbenviro@suddenlinkmail.com

Phone: 361-572-8224
Fax: 361-572-4115

Project Manager Review

Management Review

Notes: ARS International, LLC assumes no liability for the use or the interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

Contact Person: Questions regarding this analytical report should be addressed to:

Project Manager

ProjectManagers@amrad.com

Phone: 225.381.2991
Fax: 225.381.2996

LELAP Cert# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01848
Client Sample ID: S171731617 (BATCH 56859)
Sample Collection Date: 06/22/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01848-001
Date Received: 06/23/17
Report Date: 07/24/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.215	0.128	0.150	0.057	NP		pCi/L	ARS-010/EPA 903.0/904.0	07/19/17 9:21	SCAUSEY	108%
Ra-228	-0.194	0.732	1.355	0.629	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/12/17 12:19	SCAUSEY	87%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01848
Client Sample ID: S171731618 (BATCH 56859)
Sample Collection Date: 06/22/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01848-002
Date Received: 06/23/17
Report Date: 07/24/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.154	0.113	0.148	0.056	NP		pCi/L	ARS-010/EPA 903.0/904.0	07/19/17 9:21	SCAUSEY	109%
Ra-228	0.950	0.974	1.595	0.751	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/12/17 12:19	SCAUSEY	86%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

QC Results Report

Sample Delivery Group: ARS1-17-01848

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-01375	LCS	RA-226	23.217	3.753	0.106	27.545	N/A	pCi/L	ARS-010/EPA 903	7/19/17 9:21	SC	84	75%-125%
ARS1-B17-01375	LCS	RA-228	37.334	6.220	1.089	39.784	N/A	pCi/L	ARS-010/EPA 904	7/19/17 9:21	SC	94	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-01375	MBL	RA-226	0.047	0.059	0.097	NA	U	pCi/L	ARS-010/EPA 903	7/19/17 9:21	SC
ARS1-B17-01375	MBL	RA-228	0.085	0.375	0.664	NA	U	pCi/L	ARS-010/EPA 904	7/19/17 9:21	SC

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-01375	LCSD	RA-226	23.217	3.753	23.497	3.803	N/A	pCi/L	ARS-010/EPA 903	7/19/17 9:21	SC	0.04	< 1
ARS1-B17-01375	LCSD	RA-228	37.334	6.220	36.006	5.998	N/A	pCi/L	ARS-010/EPA 904	7/19/17 9:21	SC	0.11	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-01375	LCSD	RA-226	23.217	3.753	23.497	3.803	N/A	pCi/L	ARS-010/EPA 903	7/19/17 9:21	SC	0.05	< 3
ARS1-B17-01375	LCSD	RA-228	37.334	6.220	36.006	5.998	N/A	pCi/L	ARS-010/EPA 904	7/19/17 9:21	SC	0.15	< 3

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

ARS INTERNATIONAL
2609 North River Road • Port Allen, Louisiana 70767
1 (800) 401-4277 • Fax (225) 381-2996

Notes (Case Narrative):

Comments:

1.0) All MDA/MDC values are calculated on a sample specific basis.
2.0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.
3.0) Data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.
4.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix. Modified analyses are indicated by the subsequent addition of "m" to the procedure number (i.e. 900.0M).
5.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than the actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
6.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228 (Gamma Spectroscopy only).
7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234 (Gamma Spectroscopy only).
8.0) All gamma spectroscopy was performed utilizing high purity germanium detectors (**HPGe**).
9.0) ARS makes every attempt to match sample density to calibrated density; however, in some cases, it is not practical or possible to do so and data results may be affected (Gamma Spectroscopy only).
10.0) Gamma spectroscopy results are calculated values based on the **ORTEC®** GammaVision ENV32 Analysis Engine.
11.0) ACLASS DOD and ISO 17025 certification applies only to the following analytes and methods: Gross Alpha and Gross Beta (EPA 900, SM7110B&C, SW846 9310); Radium 226 (EPA 903, EPA 903.1, SM 7500 Ra-B, SW846 9315); Radium 228 (EPA 904, SM 7500 Ra-B SW846 9320); Iodine-131(EPA 901.1); Uranium by ICPMS (EPA 200.8); Strontium 89/90 (EPA 905, Eichrom SRW01, HASL 300 Sr-03-RC); Tritium (EPA 906, EPA 906M); Gamma Emitters (EPA 901.1, SM7120B, HASL 300 Ga-01-R); Americium-241, Curium 242/244, Plutonium 239/240 and 241, Thorium 228/230/232, Uranium 234/233 and 238 (Eichrom ACW03 VBS); Lead 210 (HASL 300 Pb-01-RC, Eichrom OTW01); Polonium 210 (HASL 300 Po-01-RC, HASL 300 Po-02-RC); Technetium-99 (Eichrom TCW02, Eichrom TCS01M).

Method References:

1.0) **EPA 600/4-80-032**; Prescribed Procedures for the Measurements of Radioactivity in Drinking Water, August 1980.
2.0) **Standard Methods for the Examination of Water and Wastewater** (On-Line Edition)
3.0) **EPA SW-846**; Test Methods for Evaluating Solid Waste, (On-Line edition)
4.0) **EPA 600/4/79-020**; Methods for Chemical Analysis of Water and Waste, March 1983.
5.0) **HASL 300**; The Procedures Manual of the Environmental Measurements Laboratory, Volume I, 28th Edition February, 1997.

Definitions:

CRDL Contract Required Detection Limit
CSU Combined Standard Uncertainty
DLC Decision Level Concentration (ANSI N42.23) or critical level
DO Duplicate Original
DUP Method Duplicate
LCS/LCSD Laboratory Control Sample/Laboratory Control Sample Duplicate
MDA Minimum Detectable Activity
MDC (Minimum Detectable Concentration) minimum concentration of the analyte that ARS can detect utilizing the specific analysis
MBL Method Blank
MS/MSD Matrix Spike/Matrix Spike Duplicate
N/A Not Applicable
NP Not Provided
NR Not Referenced
LOD Limit of Detection
LOQ Limit of Quantitation

Data Qualifiers:

B The analyte is found in both the associated method blank and the sample. This flag indicates probable blank contamination.
D Sample analysis accomplished through dilution.
J The reported result is an estimated value above the limit of detection but outside of quantitation range (e.g., matrix interference was observed).
Q One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).
U Activity is below the MDC, MDA, MDL, or LOD
N The analyte is a tentatively identified compound using mass spectrometry or any non-customer requested compounds that are tentatively identified.
***** LCS/LCSD or MS/MSD fails RPD criteria.
S Spike
SC Subcontracted out to another qualified laboratory
H Holding time exceeded

B Environmental Laboratory, LLC

1606 E Brazos Suite D Victoria, Texas 77901 ph. (361) 572-8224

Chain Of Custody Rec

Batch # 56859

TEMP UN-C: 4.1 | TEMP Corr: 3.9 | THERM ID# 3 | Page ___ of ___

X Check box if Billing is the same as Report Information

Customer / Report Information	Billing Information	
Name: Coleto Creek Power	Address:	Phone: 361-788-5145 FAX:
Attention: Rick Coleman	Attention: PO #	EMAIL: richard.coleman@dynegy.com
Address: P.O. Box 8; Fannin, TX 77960	Project: CCR Sampling Comments:	

Requested Analysis — Completed By laboratory

Collected By:

Custody Seals Present: Yes ☐ No ☐ — Intact: Yes ☐ No ☐

Matrix: DW - Drinking H20, S - Solid, WW - Waste H20, SL - Sludge, L - Liquid, w - Water. G = Grab, C = Composite.

Client / Field Sample ID	Collected Date	Collected Time	G = Grab C = Composite	Matrix	TYPE	NUMBER	Size	Preservative	Metals* (B)	Cl, F*, SO4 (C)	pH (C)	TDS (A)	Ra226 & Ra228 (E)	Alk:Tot, Carb, BiCarb (D)	Diss Li & Mo (F)		LAB Sample Number
MW-6	6-22-17	915	G	WW	P	6	1L, 500mL, 250mL	☒ HNO3, ☒ ICE	X	X	X	X	X	X	X		S171731617
MW-7	↓	1014	G	WW	P	6	1L, 500mL, 250mL	☒ HNO3, ☒ ICE	X	X	X	X	X	X	X		S171731618
			G	WW	P	6	1L, 500mL, 250mL	☒ HNO3, ☒ ICE	X	X	X	X	X	X	X		
			G	WW	P	6	1L, 500mL, 250mL	☒ HNO3, ☒ ICE	X	X	X	X	X	X	X		
			G	WW	P	6	1L, 500mL, 250mL	☒ HNO3, ☒ ICE	X	X	X	X	X	X	X		
			G	WW	P	6	1L, 500mL, 250mL	☒ HNO3, ☒ ICE	X	X	X	X	X	X	X		
			G	WW	P	6	1L, 500mL, 250mL	☒ HNO3, ☒ ICE	X	X	X	X	X	X	X		

Preservative options: H2SO4, H3PO4, ICE, HNO3, NaOH, HCL, Na2SO3

Required Turnaround: ☒ Routine (6-10 Business days) Expedite / Rush: ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business days ☐ 5 Business days ☐ Other REMARKS:

Surcharge will apply to RUSH TAT Authorized BY: — Container Type: P=Plastic, G=Glass, V=Voa, O=Other — Carrier ID :

Relinquished By: [illegible signature]	Date: 6-22-17	Time: 1615	Received By: [illegible signature]	Date: 6-22-17	Time: 1615
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By	Date:	Time:	Received By:	Date:	Time:

FLuoride: MAL 0.25 mg/L Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Mg,K,Na, & Hg

BatchNo: 56929

SAMPLE REPORT

T104704328-17-14

Business

Coleto Creek Power - R Coleman
PO Box 8
Fannin TX 77960
Att: Rick Coleman

Laboratory

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901
ph. 361-572-8224

Reference Information

Project: CCR Sampling
Printed: Friday, August 04, 2017

Re: Coleto Creek Power - R Coleman

Dear: Rick Coleman

Attached are the results for sample(s) received on 6/26/2017

The analytical results relate only to the samples tested.
All supporting quality data meets the requirements of NELAC unless noted in the case narrative section of the report.

This report contains 43 pages (including the cover page)

If you have any questions concerning this report, please do not hesitate to call (361) 572-8224 or Fax us at (361) 572-4115

Respectfully Submitted,

Kevin Baros

Laboratory Director

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56929

Batch No: 56929

Sample Receipt Checklist

Date Received: 6/26/2017

Project	CCR Sampling	Received By:	Woodruff

Login completed by: Woodruff (Signature) 6/26/2017 (LoginDate:)

Carrier Name: Walk In

Shipping container/cooler in good condition?	☑ YES	☐ NO	☐ Not Present	
Custody seals intact on shipping container/cooler?	☐ YES	☐ NO	☑ Not Present	
Custody seals intact on sample bottles?	☐ YES	☐ NO	☑ Not Present	
Chain of Custody present?	☑ YES	☐ NO		
Chain of Custody signed when relinquished and received	☑ YES	☐ NO		
Chain of Custody agrees with sample labels?	☑ YES	☐ NO		
Samples in proper container/bottles?	☑ YES	☐ NO		
Sample containers intact?	☑ YES	☐ NO		
Sufficient sample volume for indicated tests?	☑ YES	☐ NO		
All samples received within holding times?	☑ YES	☐ NO		
Container/Temp Blank - temperature in compliance?	☑ YES	☐ NO	>0 <6 °C On Ice	
Water - VOA vials have zero headspace? Bubble < 6mm?	☐ YES	☐ NO	☑ No VOA Vials submitted	
Water - pH acceptable upon receipt?	☑ YES	☐ NO	☐ Not Applicable	

*TEMP 2.0/1.8 | pH Adjusted? No | Checked By L. Vahrenkamp

Any No and/or N/A (not applicable) response must be detailed in the comments section below.

Client contacted		PersonContacted	
Contacted by:		Date Contacted:	

Regarding

Comments

Therm. #3. HNO3 Lot# 2-42-12. Sample "Blank" bottle cracked in transit to ARS for the Radium226/Radium228 analysis, per client no resample will be submitted.

Corrective Action

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56929

Sample Report Information

Sample ID:	S171771705	Client ID:	BLK	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Wastewater
Project: CCR Sampling
Location: Blank
Notes:

Batch No: 56929
Sampled: 6/26/2017 3:10 PM

Type: Grab
Matrix: Wastewater

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
Chloride, IC	< 1	mg/L	EPA 300	K Baros	6/27/2017 16:40	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	< 20	mg/L	SM 2320 B		6/29/2017 14:28	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/29/2017 14:28	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	< 20	mg/L	SM 2320 B		6/29/2017 14:28	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	< 0.25	mg/L	EPA 300	K Baros	6/27/2017 16:40	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	6.68	SU	SM 4500-H+B	C Watts	6/26/2017 16:40	2	2			☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	< 25	mg/L	SM2540C	C Watts	6/28/2017 14:00	25	25			☐	B Environmental-NON NELAC
SUB-OUT-Metals	C	#			7/10/2017 11:58					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	< 1	mg/L	EPA 300	K Baros	6/27/2017 16:40	1	1			☐	B- E Cert. # T104704328-17-14

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56929

Sample Report Information

Sample ID:	S171771708	Client ID:	MW-5	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Wastewater
Project: CCR Sampling
Location: MW #5
Notes:

Batch No: 56929
Sampled: 6/26/2017 11:18 AM

Type: Grab
Matrix: Wastewater

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	139	mg/L	EPA 300	K Baros	6/27/2017 17:18	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	287	mg/L	SM 2320 B		6/29/2017 14:39	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/29/2017 14:39	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	287	mg/L	SM 2320 B		6/29/2017 14:39	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.54	mg/L	EPA 300	K Baros	6/27/2017 17:18	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7	SU	SM 4500-H+B	C Watts	6/26/2017 16:40	2	2			☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	900	mg/L	SM2540C	C Watts	6/28/2017 14:00	25	25			☐	B Environmental-NON NELAC
SUB-OUT-Metals	C	#			7/10/2017 11:54					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	184	mg/L	EPA 300	K Baros	6/27/2017 17:18	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/28/2017 9:36					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56929

Sample Report Information

Sample ID:	S171771709	Client ID:	MW-9	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Wastewater
Project: CCR Sampling
Location: MW #9
Notes:

Batch No: 56929
Sampled: 6/26/2017 1:36 PM
Type: Grab
Matrix: Wastewater

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	67	mg/L	EPA 300	K Baros	6/27/2017 19:12	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	136	mg/L	SM 2320 B		6/29/2017 15:00	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/29/2017 15:00	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	136	mg/L	SM 2320 B		6/29/2017 15:00	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	1.4	mg/L	EPA 300	K Baros	6/27/2017 19:12	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.31	SU	SM 4500-H+B	C Watts	6/26/2017 16:40	2	2			☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	407	mg/L	SM2540C	C Watts	6/28/2017 14:00	25	25			☐	B Environmental-NON NELAC
SUB-OUT-Metals	C	#			7/10/2017 12:00					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	61	mg/L	EPA 300	K Baros	6/27/2017 19:12	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/28/2017 9:36					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56929

Sample Report Information

Sample ID:	S171771710	Client ID:	MW-9A	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Wastewater
Project: CCR Sampling
Location: MW 9A
Notes:

Batch No: 56929
Sampled: 6/26/2017 2:08 PM

Type: Grab
Matrix: Wastewater

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	62	mg/L	EPA 300	K Baros	6/27/2017 21:07	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	138	mg/L	SM 2320 B		6/29/2017 15:06	10	10			☑	PCS Cert No. T104704361-08
Alkalinity, Carbonate	20	mg/L	SM 2320 B		6/29/2017 15:06	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	138	mg/L	SM 2320 B		6/29/2017 15:06	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	1.3	mg/L	EPA 300	K Baros	6/27/2017 21:07	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.5	SU	SM 4500-H+B	C Watts	6/26/2017 16:40	2	2			☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	390	mg/L	SM2540C	C Watts	6/28/2017 14:00	25	25			☐	B Environmental-NON NELAC
SUB-OUT-Metals	C	#			7/10/2017 12:02					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	65	mg/L	EPA 300	K Baros	6/27/2017 21:07	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/28/2017 9:36					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56929

Sample Report Information

Sample ID:	S171771711	Client ID:	MW-10	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Wastewater
Project: CCR Sampling
Location: MW #10
Notes:

Batch No: 56929
Sampled: 6/26/2017 2:40 PM

Type: Grab
Matrix: Wastewater

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	78	mg/L	EPA 300	K Baros	6/27/2017 21:45	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	236	mg/L	SM 2320 B		6/29/2017 15:13	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/29/2017 15:13	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	236	mg/L	SM 2320 B		6/29/2017 15:13	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.84	mg/L	EPA 300	K Baros	6/27/2017 21:45	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.33	SU	SM 4500-H+B	C Watts	6/26/2017 16:40	2	2			☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	530	mg/L	SM2540C	C Watts	6/28/2017 14:00	25	25			☐	B Environmental-NON NELAC
SUB-OUT-Metals	C	#			7/10/2017 12:04					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	92	mg/L	EPA 300	K Baros	6/27/2017 21:45	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/28/2017 9:36					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56929

Sample Report Information

Sample ID:	S171771712	Client ID:	MW-11	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Wastewater
Project: CCR Sampling
Location: MW #11
Notes:

Batch No: 56929
Sampled: 6/26/2017 9:06 AM
Type: Grab
Matrix: Wastewater

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	44	mg/L	EPA 300	K Baros	6/27/2017 22:23	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	147	mg/L	SM 2320 B		6/29/2017 15:19	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/29/2017 15:19	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	147	mg/L	SM 2320 B		6/29/2017 15:19	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	1	mg/L	EPA 300	K Baros	6/27/2017 22:23	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.59	SU	SM 4500-H+B	C Watts	6/26/2017 16:40	2	2			☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	407	mg/L	SM2540C	C Watts	6/29/2017 16:10	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/10/2017 12:06					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	43	mg/L	EPA 300	K Baros	6/27/2017 22:23	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/28/2017 9:36					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56929

Sample Report Information

Sample ID:	S171771714	Client ID:	DUP 1	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Wastewater
Project: CCR Sampling
Location: Dup
Notes:

Batch No: 56929
Sampled: 6/26/2017 12:00 AM
Type: Grab
Matrix: Wastewater

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	44	mg/L	EPA 300	K Baros	6/27/2017 23:39	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	148	mg/L	SM 2320 B		6/29/2017 15:30	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		6/29/2017 15:30	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	148	mg/L	SM 2320 B		6/29/2017 15:30	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	1	mg/L	EPA 300	K Baros	6/27/2017 23:39	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.47	SU	SM 4500-H+B	C Watts	6/26/2017 16:40	2	2			☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	347	mg/L	SM2540C	C Watts	6/28/2017 14:00	25	25			☐	B Environmental-NON NELAC
SUB-OUT-Metals	c	#			7/10/2017 12:10					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	44	mg/L	EPA 300	K Baros	6/27/2017 23:39	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	c	#			7/28/2017 9:36					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56929

QA Summary Report

Parameter	ID	Result	Ref Value	Amt Added	LOQ	Qualifer	Control	Flag	Comments
.Method Blank									
.- Chloride, IC	**Q171881024**	<1mg/L	0		1		1		Blank Acceptable.
6/27/2017 12:06									
Fluoride, IC	**Q171881024**	<0.25mg/L	0		0.25		0.25		Blank Acceptable.
6/27/2017 12:06									
Nitrate-N, IC	**Q171881024**	<0.06mg/L	0		0.06		0.06		Blank Acceptable.
6/27/2017 12:06									
Nitrite-N, IC	**Q171881024**	<0.08mg/L	0		0.08		0.08		Blank Acceptable.
6/27/2017 12:06									
Solids, Total Dissolved	**Q171811357**	<25mg/L	0		10		25		Blank Acceptable.
6/29/2017 16:10									
Solids, Total Dissolved	**Q171801028**	<25mg/L	0		10		25		Blank Acceptable.
6/28/2017 14:00									
Sulfate, IC	**Q171881024**	<1mg/L	0		1		1		Blank Acceptable.
6/27/2017 12:06									
Duplicate									
pH (Standard Units)	**Q171801132**	7SU	7		2	0.0%	20		Duplicate RPD Acceptable.
6/26/2017 16:40									
Solids, Total Dissolved	**Q171801030**	907mg/L	900		10	0.8%	20		Duplicate RPD Acceptable.
6/28/2017 14:00									
Solids, Total Dissolved	**Q171811359**	7180mg/L	7160		10	0.3%	20		Duplicate RPD Acceptable.
6/29/2017 16:10									
Laboratory Control Standard									
.- Chloride, IC	**Q171881026**	26.4mg/L	25		1	105.6%	80 - 120		Standard Recovery Acceptable.
6/27/2017 12:44						5.4%	20		Standard RPD Acceptable.
Fluoride, IC	**Q171881026**	2.22mg/L	2		0.25	111.0%	80 - 120		Standard Recovery Acceptable.
6/27/2017 12:44						10.4%	20		Standard RPD Acceptable.
Nitrate-N, IC	**Q171881026**	0.46mg/L	0.45		0.06	102.2%	80 - 120		Standard Recovery Acceptable.
6/27/2017 12:44						2.2%	25		Standard RPD Acceptable.
Nitrite-N, IC	**Q171881026**	0.61mg/L	0.61		0.08	100.0%	80 - 120		Standard Recovery Acceptable.
6/27/2017 12:44						0.0%	25		Standard RPD Acceptable.
pH (Standard Units)	**Q171801130**	7.01SU	7		2	100.1%	80 - 120		Standard Recovery Acceptable.
6/26/2017 16:40						0.1%	20		Standard RPD Acceptable.
Sulfate, IC	**Q171881026**	26.2mg/L	25		1	104.8%	80 - 120		Standard Recovery Acceptable.
6/27/2017 12:44						4.7%	20		Standard RPD Acceptable.

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 56929 **Page 12 of 43**

Parameter	ID	Result	Ref Value	Amt Added	LOQ	Qualifer	Control	Flag	Comments
Matrix Spike									
.- Chloride, IC	Q171881027	152mg/L	151	25	1	104.0%	80 - 120		Spike Recovery Acceptable.
6/27/2017 17:56						0.7%	20		Spike RPD Acceptable.
Fluoride, IC	Q171881027	2.41mg/L	2.49	2	0.25	96.0%	80 - 120		Spike Recovery Acceptable.
6/27/2017 17:56						3.3%	20		Spike RPD Acceptable.
Nitrate-N, IC	Q171881027	10.83mg/L	10.81	2.25	0.06	100.9%	80 - 120		Spike Recovery Acceptable.
6/27/2017 14:38						0.2%	20		Spike RPD Acceptable.
Nitrite-N, IC	Q171881027	2.91mg/L	3.05	3.05	0.08	95.4%	80 - 120		Spike Recovery Acceptable.
6/27/2017 14:38						4.7%	20		Spike RPD Acceptable.
Sulfate, IC	Q171881027	189mg/L	190.6	25	1	93.6%	70 - 130		Spike Recovery Acceptable.
6/27/2017 17:56						0.8%	20		Spike RPD Acceptable.
Matrix Spike Dup									
.- Chloride, IC	Q17188102A	152mg/L	151	25	1	104.0%	80 - 120		Spike Recovery Acceptable.
6/27/2017 18:34						0.7%	20		Spike RPD Acceptable.
Fluoride, IC	Q17188102A	2.36mg/L	2.49	2	0.25	93.5%	80 - 120		Spike Recovery Acceptable.
6/27/2017 18:34						5.4%	20		Spike RPD Acceptable.
Nitrate-N, IC	Q17188102A	10.97mg/L	10.81	2.25	0.06	107.1%	80 - 120		Spike Recovery Acceptable.
6/27/2017 15:16						1.5%	20		Spike RPD Acceptable.
Nitrite-N, IC	Q17188102A	2.89mg/L	3.05	3.05	0.08	94.8%	80 - 120		Spike Recovery Acceptable.
6/27/2017 15:16						5.4%	20		Spike RPD Acceptable.
Sulfate, IC	Q17188102A	192mg/L	190.6	25	1	105.6%	70 - 130		Spike Recovery Acceptable.
6/27/2017 18:34						0.7%	20		Spike RPD Acceptable.

Flag and Qualifier Legend

Negative - Result Detected
Caution - Problem Detected
Warning - Null Value

MDL = Method Detection Limit ***DF = Dilution Factor***
LOQ = Limit of Quantitation ***j = Analyte detected between MDL and LOQ***
S = surrogate standard out of limit ***H = sample out of hold time***

MS, MSD, RPD- Failure may occur due to matrix interference, data released per QA plan

Friday, August 04, 2017 **B Environmental - LDMS QA Report Summary**

Note: THANK YOU!

DHL Analytical, Inc. **Date:** *11-Jul-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Lab Order: 1706306

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition and Standard Methods.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives except where noted in the following. For Total Metals Analysis, the recovery of Magnesium for the Post Digestion Spike (1706306-02 PDS) was below the method control limits. This is flagged accordingly in the QC Summary Report. This analyte was within method control limits in the associated Serial dilution. No further corrective action was taken.

For Total Metals Analysis, the RPD of Boron for the Serial Dilution (1706306-02 SD) was above the method control limit. This is flagged accordingly in the QC Summary Report. This analyte was within method control limits in the associated Post Digestion Spike. No further corrective action was taken.

For Total/Dissolved Metals Analysis, the result of Dissolved Molybdenum for two samples was slightly higher than the result of Total Molybdenum. The results were within acceptable analytical variation limits. No further corrective action was taken.

DHL Analytical, Inc.

Date: *11-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	Blank
Project:	Coleto Creek Power	**Lab ID:**	1706306-01
Project No:	CCR Sampling (56929)	**Alternate ID:**	S171771705
Lab Order:	1706306	**Collection Date:**	06/26/17 03:10 PM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **RO**
Dissolved Lithium	<0.00500	0.00500	0.0100		mg/L	1	07/07/17 03:32 PM
Dissolved Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	07/07/17 03:32 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	07/10/17 11:58 AM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	07/10/17 11:58 AM
Barium	<0.00300	0.00300	0.0100		mg/L	1	07/10/17 11:58 AM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 11:58 AM
Boron	<0.0100	0.0100	0.0300		mg/L	1	07/11/17 11:43 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 11:58 AM
Calcium	<0.100	0.100	0.300		mg/L	1	07/10/17 11:58 AM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	07/10/17 11:58 AM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	07/10/17 11:58 AM
Lead	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 11:58 AM
Lithium	<0.00500	0.00500	0.0100		mg/L	1	07/10/17 11:58 AM
Magnesium	<0.100	0.100	0.300		mg/L	1	07/10/17 11:58 AM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	07/10/17 11:58 AM
Potassium	<0.100	0.100	0.300		mg/L	1	07/10/17 11:58 AM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	07/10/17 11:58 AM
Sodium	<0.100	0.100	0.300		mg/L	1	07/10/17 11:58 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	07/10/17 11:58 AM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	07/07/17 09:53 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.46	1	06/29/17 02:28 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.46	1	06/29/17 02:28 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.46	1	06/29/17 02:28 PM
Alkalinity, Total (As CaCO3)	<20.0	20.0	20.0		mg/L @ pH 4.46	1	06/29/17 02:28 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *11-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-5
Project:	Coleto Creek Power	**Lab ID:**	1706306-02
Project No:	CCR Sampling (56929)	**Alternate ID:**	S171771708
Lab Order:	1706306	**Collection Date:**	06/26/17 11:18 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **RO**
Dissolved Lithium	0.0178	0.00500	0.0100		mg/L	1	07/07/17 03:28 PM
Dissolved Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	07/07/17 03:28 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	07/10/17 11:54 AM
Arsenic	0.00955	0.00200	0.00500		mg/L	1	07/10/17 11:54 AM
Barium	0.0735	0.00300	0.0100		mg/L	1	07/10/17 11:54 AM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 11:54 AM
Boron	0.121	0.0100	0.0300		mg/L	1	07/11/17 11:39 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 11:54 AM
Calcium	129	1.00	3.00		mg/L	10	07/11/17 12:22 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	07/10/17 11:54 AM
Cobalt	0.00343	0.00300	0.00500	J	mg/L	1	07/10/17 11:54 AM
Lead	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 11:54 AM
Lithium	0.0204	0.00500	0.0100		mg/L	1	07/10/17 11:54 AM
Magnesium	22.5	0.100	0.300		mg/L	1	07/10/17 11:54 AM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	07/10/17 11:54 AM
Potassium	1.56	0.100	0.300		mg/L	1	07/10/17 11:54 AM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	07/10/17 11:54 AM
Sodium	127	1.00	3.00		mg/L	10	07/11/17 12:22 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	07/10/17 11:54 AM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	07/07/17 09:55 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	287	10.0	20.0		mg/L @ pH 4.52	1	06/29/17 02:39 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	06/29/17 02:39 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	06/29/17 02:39 PM
Alkalinity, Total (As CaCO3)	287	20.0	20.0		mg/L @ pH 4.52	1	06/29/17 02:39 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
	C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
	E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
	RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *11-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-9
Project:	Coleto Creek Power	**Lab ID:**	1706306-03
Project No:	CCR Sampling (56929)	**Alternate ID:**	S171771709
Lab Order:	1706306	**Collection Date:**	06/26/17 01:36 PM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **RO**
Dissolved Lithium	<0.00500	0.00500	0.0100		mg/L	1	07/07/17 03:33 PM
Dissolved Molybdenum	0.106	0.00200	0.00500		mg/L	1	07/07/17 03:33 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	07/10/17 12:00 PM
Arsenic	0.0107	0.00200	0.00500		mg/L	1	07/10/17 12:00 PM
Barium	0.114	0.00300	0.0100		mg/L	1	07/10/17 12:00 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 12:00 PM
Boron	3.31	0.100	0.300		mg/L	10	07/11/17 11:45 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 12:00 PM
Calcium	60.6	1.00	3.00		mg/L	10	07/11/17 11:45 AM
Chromium	0.0102	0.00200	0.00500		mg/L	1	07/10/17 12:00 PM
Cobalt	0.00400	0.00300	0.00500	J	mg/L	1	07/10/17 12:00 PM
Lead	0.00217	0.000300	0.00100		mg/L	1	07/10/17 12:00 PM
Lithium	0.00736	0.00500	0.0100	J	mg/L	1	07/10/17 12:00 PM
Magnesium	7.83	0.100	0.300		mg/L	1	07/10/17 12:00 PM
Molybdenum	0.106	0.00200	0.00500		mg/L	1	07/10/17 12:00 PM
Potassium	1.41	0.100	0.300		mg/L	1	07/10/17 12:00 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	07/10/17 12:00 PM
Sodium	62.1	1.00	3.00		mg/L	10	07/11/17 11:45 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	07/10/17 12:00 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	07/07/17 10:06 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	136	10.0	20.0		mg/L @ pH 4.5	1	06/29/17 03:00 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.5	1	06/29/17 03:00 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.5	1	06/29/17 03:00 PM
Alkalinity, Total (As CaCO3)	136	20.0	20.0		mg/L @ pH 4.5	1	06/29/17 03:00 PM

Qualifiers:			
	* Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
	C Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
	E TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
	MDL Method Detection Limit	ND	Not Detected at the Method Detection Limit
	RL Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *11-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-9A
Project:	Coleto Creek Power	**Lab ID:**	1706306-04
Project No:	CCR Sampling (56929)	**Alternate ID:**	S171771710
Lab Order:	1706306	**Collection Date:**	06/26/17 02:08 PM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **RO**
Dissolved Lithium	0.00554	0.00500	0.0100	J	mg/L	1	07/07/17 03:35 PM
Dissolved Molybdenum	0.0787	0.00200	0.00500		mg/L	1	07/07/17 03:35 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	07/10/17 12:02 PM
Arsenic	0.0119	0.00200	0.00500		mg/L	1	07/10/17 12:02 PM
Barium	0.123	0.00300	0.0100		mg/L	1	07/10/17 12:02 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 12:02 PM
Boron	3.33	0.100	0.300		mg/L	10	07/11/17 11:47 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 12:02 PM
Calcium	85.8	1.00	3.00		mg/L	10	07/11/17 11:47 AM
Chromium	0.0117	0.00200	0.00500		mg/L	1	07/10/17 12:02 PM
Cobalt	0.00434	0.00300	0.00500	J	mg/L	1	07/10/17 12:02 PM
Lead	0.00309	0.000300	0.00100		mg/L	1	07/10/17 12:02 PM
Lithium	0.00768	0.00500	0.0100	J	mg/L	1	07/10/17 12:02 PM
Magnesium	9.07	0.100	0.300		mg/L	1	07/10/17 12:02 PM
Molybdenum	0.0763	0.00200	0.00500		mg/L	1	07/10/17 12:02 PM
Potassium	1.25	0.100	0.300		mg/L	1	07/10/17 12:02 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	07/10/17 12:02 PM
Sodium	62.1	1.00	3.00		mg/L	10	07/11/17 11:47 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	07/10/17 12:02 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	07/07/17 10:09 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	138	10.0	20.0		mg/L @ pH 4.51	1	06/29/17 03:06 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	06/29/17 03:06 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	06/29/17 03:06 PM
Alkalinity, Total (As CaCO3)	138	20.0	20.0		mg/L @ pH 4.51	1	06/29/17 03:06 PM

Qualifiers:			
	*	Value exceeds TCLP Maximum Concentration Level	B Analyte detected in the associated Method Blank
	C	Sample Result or QC discussed in the Case Narrative	DF Dilution Factor
	E	TPH pattern not Gas or Diesel Range Pattern	J Analyte detected between MDL and RL
	MDL	Method Detection Limit	ND Not Detected at the Method Detection Limit
	RL	Reporting Limit	S Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *11-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-10
Project:	Coleto Creek Power	**Lab ID:**	1706306-05
Project No:	CCR Sampling (56929)	**Alternate ID:**	S171771711
Lab Order:	1706306	**Collection Date:**	06/26/17 02:40 PM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **RO**
Dissolved Lithium	0.0118	0.00500	0.0100		mg/L	1	07/07/17 03:37 PM
Dissolved Molybdenum	0.114	0.00200	0.00500		mg/L	1	07/07/17 03:37 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	07/10/17 12:04 PM
Arsenic	0.0160	0.00200	0.00500		mg/L	1	07/10/17 12:04 PM
Barium	0.0587	0.00300	0.0100		mg/L	1	07/10/17 12:04 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 12:04 PM
Boron	8.21	0.200	0.600		mg/L	20	07/11/17 11:49 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 12:04 PM
Calcium	63.4	2.00	6.00		mg/L	20	07/11/17 11:49 AM
Chromium	0.0177	0.00200	0.00500		mg/L	1	07/10/17 12:04 PM
Cobalt	0.00322	0.00300	0.00500	J	mg/L	1	07/10/17 12:04 PM
Lead	0.000871	0.000300	0.00100	J	mg/L	1	07/10/17 12:04 PM
Lithium	0.0137	0.00500	0.0100		mg/L	1	07/10/17 12:04 PM
Magnesium	9.76	0.100	0.300		mg/L	1	07/10/17 12:04 PM
Molybdenum	0.116	0.00200	0.00500		mg/L	1	07/10/17 12:04 PM
Potassium	1.00	0.100	0.300		mg/L	1	07/10/17 12:04 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	07/10/17 12:04 PM
Sodium	134	2.00	6.00		mg/L	20	07/11/17 11:49 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	07/10/17 12:04 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	07/07/17 10:11 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	236	10.0	20.0		mg/L @ pH 4.53	1	06/29/17 03:13 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	06/29/17 03:13 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	06/29/17 03:13 PM
Alkalinity, Total (As CaCO3)	236	20.0	20.0		mg/L @ pH 4.53	1	06/29/17 03:13 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *11-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-11
Project:	Coleto Creek Power	**Lab ID:**	1706306-06
Project No:	CCR Sampling (56929)	**Alternate ID:**	S171771712
Lab Order:	1706306	**Collection Date:**	06/26/17 09:06 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **RO**
Dissolved Lithium	0.0126	0.00500	0.0100		mg/L	1	07/07/17 03:39 PM
Dissolved Molybdenum	0.00817	0.00200	0.00500		mg/L	1	07/07/17 03:39 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	07/10/17 12:06 PM
Arsenic	0.0237	0.00200	0.00500		mg/L	1	07/10/17 12:06 PM
Barium	0.0954	0.00300	0.0100		mg/L	1	07/10/17 12:06 PM
Beryllium	0.000561	0.000300	0.00100	J	mg/L	1	07/10/17 12:06 PM
Boron	1.15	0.100	0.300		mg/L	10	07/11/17 11:51 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 12:06 PM
Calcium	82.0	1.00	3.00		mg/L	10	07/11/17 11:51 AM
Chromium	0.0131	0.00200	0.00500		mg/L	1	07/10/17 12:06 PM
Cobalt	0.00494	0.00300	0.00500	J	mg/L	1	07/10/17 12:06 PM
Lead	0.00593	0.000300	0.00100		mg/L	1	07/10/17 12:06 PM
Lithium	0.0176	0.00500	0.0100		mg/L	1	07/10/17 12:06 PM
Magnesium	6.37	0.100	0.300		mg/L	1	07/10/17 12:06 PM
Molybdenum	0.00796	0.00200	0.00500		mg/L	1	07/10/17 12:06 PM
Potassium	2.47	0.100	0.300		mg/L	1	07/10/17 12:06 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	07/10/17 12:06 PM
Sodium	61.2	1.00	3.00		mg/L	10	07/11/17 11:51 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	07/10/17 12:06 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	07/07/17 10:13 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	147	10.0	20.0		mg/L @ pH 4.47	1	06/29/17 03:19 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.47	1	06/29/17 03:19 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.47	1	06/29/17 03:19 PM
Alkalinity, Total (As CaCO3)	147	20.0	20.0		mg/L @ pH 4.47	1	06/29/17 03:19 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
	C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
	E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
	RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *11-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	PS-3
Project:	Coleto Creek Power	**Lab ID:**	1706306-07
Project No:	CCR Sampling (56929)	**Alternate ID:**	S171771713
Lab Order:	1706306	**Collection Date:**	06/26/17 09:38 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **RO**
Dissolved Lithium	0.00982	0.00500	0.0100	J	mg/L	1	07/07/17 03:41 PM
Dissolved Molybdenum	0.00423	0.00200	0.00500	J	mg/L	1	07/07/17 03:41 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	07/10/17 12:08 PM
Arsenic	0.00829	0.00200	0.00500		mg/L	1	07/10/17 12:08 PM
Barium	0.117	0.00300	0.0100		mg/L	1	07/10/17 12:08 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 12:08 PM
Boron	1.36	0.100	0.300		mg/L	10	07/11/17 11:53 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 12:08 PM
Calcium	57.2	1.00	3.00		mg/L	10	07/11/17 11:53 AM
Chromium	0.0210	0.00200	0.00500		mg/L	1	07/10/17 12:08 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	07/10/17 12:08 PM
Lead	0.000486	0.000300	0.00100	J	mg/L	1	07/10/17 12:08 PM
Lithium	0.0105	0.00500	0.0100		mg/L	1	07/10/17 12:08 PM
Magnesium	3.51	0.100	0.300		mg/L	1	07/10/17 12:08 PM
Molybdenum	0.00507	0.00200	0.00500		mg/L	1	07/10/17 12:08 PM
Potassium	2.15	0.100	0.300		mg/L	1	07/10/17 12:08 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	07/10/17 12:08 PM
Sodium	64.5	1.00	3.00		mg/L	10	07/11/17 11:53 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	07/10/17 12:08 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	07/07/17 10:15 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	154	10.0	20.0		mg/L @ pH 4.49	1	06/29/17 03:24 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.49	1	06/29/17 03:24 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.49	1	06/29/17 03:24 PM
Alkalinity, Total (As CaCO3)	154	20.0	20.0		mg/L @ pH 4.49	1	06/29/17 03:24 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *11-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	Dup 1
Project:	Coleto Creek Power	**Lab ID:**	1706306-08
Project No:	CCR Sampling (56929)	**Alternate ID:**	S171771714
Lab Order:	1706306	**Collection Date:**	06/26/17
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **RO**
Dissolved Lithium	0.0127	0.00500	0.0100		mg/L	1	07/07/17 03:42 PM
Dissolved Molybdenum	0.00752	0.00200	0.00500		mg/L	1	07/07/17 03:42 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	07/10/17 12:10 PM
Arsenic	0.0221	0.00200	0.00500		mg/L	1	07/10/17 12:10 PM
Barium	0.0837	0.00300	0.0100		mg/L	1	07/10/17 12:10 PM
Beryllium	0.000306	0.000300	0.00100	J	mg/L	1	07/10/17 12:10 PM
Boron	1.11	0.100	0.300		mg/L	10	07/11/17 11:55 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 12:10 PM
Calcium	69.3	1.00	3.00		mg/L	10	07/11/17 11:55 AM
Chromium	0.00816	0.00200	0.00500		mg/L	1	07/10/17 12:10 PM
Cobalt	0.00358	0.00300	0.00500	J	mg/L	1	07/10/17 12:10 PM
Lead	0.00372	0.000300	0.00100		mg/L	1	07/10/17 12:10 PM
Lithium	0.0163	0.00500	0.0100		mg/L	1	07/10/17 12:10 PM
Magnesium	5.18	0.100	0.300		mg/L	1	07/10/17 12:10 PM
Molybdenum	0.00788	0.00200	0.00500		mg/L	1	07/10/17 12:10 PM
Potassium	2.07	0.100	0.300		mg/L	1	07/10/17 12:10 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	07/10/17 12:10 PM
Sodium	61.9	1.00	3.00		mg/L	10	07/11/17 11:55 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	07/10/17 12:10 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	07/07/17 10:18 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	148	10.0	20.0		mg/L @ pH 4.47	1	06/29/17 03:30 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.47	1	06/29/17 03:30 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.47	1	06/29/17 03:30 PM
Alkalinity, Total (As CaCO3)	148	20.0	20.0		mg/L @ pH 4.47	1	06/29/17 03:30 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *11-Jul-17*

CLIENT: B-Environmental
Work Order: 1706306
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_170707A

The QC data in batch 81287 applies to the following samples: 1706306-01A, 1706306-02A, 1706306-03A, 1706306-04A, 1706306-05A, 1706306-06A, 1706306-07A, 1706306-08A

Sample ID **MB-81287** Batch ID: **81287** TestNo: **SW7470A** Units: **mg/L**
SampType: **MBLK** Run ID: **CETAC2_HG_170707A** Analysis Date: **7/7/2017 9:35:08 AM** Prep Date: **7/6/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.0000800	0.000200								

Sample ID **LCS-81287** Batch ID: **81287** TestNo: **SW7470A** Units: **mg/L**
SampType: **LCS** Run ID: **CETAC2_HG_170707A** Analysis Date: **7/7/2017 9:44:13 AM** Prep Date: **7/6/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00201	0.000200	0.00200	0	101	85	115			

Sample ID **LCSD-81287** Batch ID: **81287** TestNo: **SW7470A** Units: **mg/L**
SampType: **LCSD** Run ID: **CETAC2_HG_170707A** Analysis Date: **7/7/2017 9:46:28 AM** Prep Date: **7/6/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00199	0.000200	0.00200	0	99.5	85	115	1.00	15	

Sample ID **1706306-02A SD** Batch ID: **81287** TestNo: **SW7470A** Units: **mg/L**
SampType: **SD** Run ID: **CETAC2_HG_170707A** Analysis Date: **7/7/2017 9:57:47 AM** Prep Date: **7/6/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.000400	0.00100	0	0				0	10	

Sample ID **1706306-02A PDS** Batch ID: **81287** TestNo: **SW7470A** Units: **mg/L**
SampType: **PDS** Run ID: **CETAC2_HG_170707A** Analysis Date: **7/7/2017 10:00:03 AM** Prep Date: **7/6/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00237	0.000200	0.00250	0	94.8	85	115			

Sample ID **1706306-02A MS** Batch ID: **81287** TestNo: **SW7470A** Units: **mg/L**
SampType: **MS** Run ID: **CETAC2_HG_170707A** Analysis Date: **7/7/2017 10:02:19 AM** Prep Date: **7/6/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00198	0.000200	0.00200	0	99.0	80	120			

Sample ID **1706306-02A MSD** Batch ID: **81287** TestNo: **SW7470A** Units: **mg/L**
SampType: **MSD** Run ID: **CETAC2_HG_170707A** Analysis Date: **7/7/2017 10:04:35 AM** Prep Date: **7/6/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00199	0.000200	0.00200	0	99.5	80	120	0.504	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706306
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170710C

The QC data in batch 81220 applies to the following samples: 1706306-01A, 1706306-02A, 1706306-03A, 1706306-04A, 1706306-05A, 1706306-06A, 1706306-07A, 1706306-08A

Sample ID **MB-81220** Batch ID: **81220** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS4_170710C** Analysis Date: **7/10/2017 11:46:00 AM** Prep Date: **6/30/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.000800	0.00250								
Arsenic	<0.00200	0.00500								
Barium	<0.00300	0.0100								
Beryllium	<0.000300	0.00100								
Cadmium	<0.000300	0.00100								
Calcium	<0.100	0.300								
Chromium	<0.00200	0.00500								
Cobalt	<0.00300	0.00500								
Lead	<0.000300	0.00100								
Lithium	<0.00500	0.0100								
Magnesium	<0.100	0.300								
Molybdenum	<0.00200	0.00500								
Potassium	<0.100	0.300								
Selenium	<0.00200	0.00500								
Sodium	<0.100	0.300								
Thallium	<0.000500	0.00150								

Sample ID **LCS-81220** Batch ID: **81220** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS4_170710C** Analysis Date: **7/10/2017 11:49:00 AM** Prep Date: **6/30/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.195	0.00250	0.200	0	97.6	80	120			
Arsenic	0.198	0.00500	0.200	0	99.0	80	120			
Barium	0.198	0.0100	0.200	0	99.0	80	120			
Beryllium	0.204	0.00100	0.200	0	102	80	120			
Cadmium	0.198	0.00100	0.200	0	99.2	80	120			
Calcium	5.17	0.300	5.00	0	103	80	120			
Chromium	0.205	0.00500	0.200	0	103	80	120			
Cobalt	0.203	0.00500	0.200	0	102	80	120			
Lead	0.197	0.00100	0.200	0	98.3	80	120			
Lithium	0.209	0.0100	0.200	0	105	80	120			
Magnesium	5.07	0.300	5.00	0	101	80	120			
Molybdenum	0.194	0.00500	0.200	0	97.2	80	120			
Potassium	5.13	0.300	5.00	0	103	80	120			
Selenium	0.201	0.00500	0.200	0	100	80	120			
Sodium	5.10	0.300	5.00	0	102	80	120			
Thallium	0.201	0.00150	0.200	0	100	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706306
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170710C

Sample ID **LCSD-81220** Batch ID: **81220** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS4_170710C** Analysis Date: **7/10/2017 11:50:00 AM** Prep Date: **6/30/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.198	0.00250	0.200	0	98.8	80	120	1.26	15	
Arsenic	0.197	0.00500	0.200	0	98.4	80	120	0.602	15	
Barium	0.198	0.0100	0.200	0	99.1	80	120	0.127	15	
Beryllium	0.205	0.00100	0.200	0	102	80	120	0.350	15	
Cadmium	0.198	0.00100	0.200	0	99.2	80	120	0.055	15	
Calcium	5.10	0.300	5.00	0	102	80	120	1.44	15	
Chromium	0.204	0.00500	0.200	0	102	80	120	0.731	15	
Cobalt	0.203	0.00500	0.200	0	102	80	120	0.028	15	
Lead	0.197	0.00100	0.200	0	98.5	80	120	0.229	15	
Lithium	0.206	0.0100	0.200	0	103	80	120	1.59	15	
Magnesium	5.07	0.300	5.00	0	101	80	120	0.130	15	
Molybdenum	0.196	0.00500	0.200	0	97.9	80	120	0.664	15	
Potassium	5.12	0.300	5.00	0	102	80	120	0.199	15	
Selenium	0.198	0.00500	0.200	0	99.1	80	120	1.40	15	
Sodium	5.06	0.300	5.00	0	101	80	120	0.737	15	
Thallium	0.202	0.00150	0.200	0	101	80	120	0.702	15	

Sample ID **1706306-02A SD** Batch ID: **81220** TestNo: **SW6020A** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS4_170710C** Analysis Date: **7/10/2017 11:56:00 AM** Prep Date: **6/30/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.00400	0.0125	0	0				0	10	
Arsenic	<0.0100	0.0250	0	0.00955				0	10	
Barium	0.0746	0.0500	0	0.0735				1.49	10	
Beryllium	<0.00150	0.00500	0	0				0	10	
Cadmium	<0.00150	0.00500	0	0				0	10	
Chromium	<0.0100	0.0250	0	0				0	10	
Cobalt	<0.0150	0.0250	0	0.00343				0	10	
Lead	<0.00150	0.00500	0	0				0	10	
Lithium	<0.0250	0.0500	0	0.0204				0	10	
Magnesium	23.1	1.50	0	22.5				2.37	10	
Molybdenum	<0.0100	0.0250	0	0				0	10	
Potassium	1.56	1.50	0	1.56				0.131	10	
Selenium	<0.0100	0.0250	0	0				0	10	
Thallium	<0.00250	0.00750	0	0				0	10	

Sample ID **1706306-02A PDS** Batch ID: **81220** TestNo: **SW6020A** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS4_170710C** Analysis Date: **7/10/2017 12:16:00 PM** Prep Date: **6/30/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.200	0.00250	0.200	0	99.9	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706306
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170710C

Sample ID 1706306-02A PDS	Batch ID: 81220	TestNo: SW6020A	Units: mg/L
SampType: PDS	Run ID: ICP-MS4_170710C	Analysis Date: 7/10/2017 12:16:00 PM	Prep Date: 6/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.208	0.00500	0.200	0.00955	99.4	80	120			
Barium	0.272	0.0100	0.200	0.0735	99.3	80	120			
Beryllium	0.206	0.00100	0.200	0	103	80	120			
Cadmium	0.197	0.00100	0.200	0	98.6	80	120			
Chromium	0.211	0.00500	0.200	0	105	80	120			
Cobalt	0.206	0.00500	0.200	0.00343	101	80	120			
Lead	0.199	0.00100	0.200	0	99.3	80	120			
Lithium	0.222	0.0100	0.200	0.0204	101	80	120			
Magnesium	25.9	0.300	5.00	22.5	67.1	80	120			S
Molybdenum	0.198	0.00500	0.200	0	99.0	80	120			
Potassium	6.33	0.300	5.00	1.56	95.5	80	120			
Selenium	0.196	0.00500	0.200	0	97.9	80	120			
Thallium	0.201	0.00150	0.200	0	101	80	120			

Sample ID 1706306-02A MS	Batch ID: 81220	TestNo: SW6020A	Units: mg/L
SampType: MS	Run ID: ICP-MS4_170710C	Analysis Date: 7/10/2017 12:18:00 PM	Prep Date: 6/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.197	0.00250	0.200	0	98.3	80	120			
Arsenic	0.211	0.00500	0.200	0.00955	101	80	120			
Barium	0.272	0.0100	0.200	0.0735	99.5	80	120			
Beryllium	0.198	0.00100	0.200	0	99.1	80	120			
Cadmium	0.191	0.00100	0.200	0	95.7	80	120			
Calcium	132	0.300	5.00	126	113	80	120			
Chromium	0.199	0.00500	0.200	0	99.6	80	120			
Cobalt	0.201	0.00500	0.200	0.00343	98.6	80	120			
Lead	0.200	0.00100	0.200	0	99.8	80	120			
Lithium	0.219	0.0100	0.200	0.0204	99.2	80	120			
Magnesium	26.9	0.300	5.00	22.5	88.1	80	120			
Molybdenum	0.200	0.00500	0.200	0	100	80	120			
Potassium	6.66	0.300	5.00	1.56	102	80	120			
Selenium	0.200	0.00500	0.200	0	99.8	80	120			
Sodium	128	0.300	5.00	122	114	80	120			
Thallium	0.202	0.00150	0.200	0	101	80	120			

Sample ID 1706306-02A MSD	Batch ID: 81220	TestNo: SW6020A	Units: mg/L
SampType: MSD	Run ID: ICP-MS4_170710C	Analysis Date: 7/10/2017 12:20:00 PM	Prep Date: 6/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.196	0.00250	0.200	0	98.0	80	120	0.355	15	
Arsenic	0.210	0.00500	0.200	0.00955	100	80	120	0.532	15	

Qualifiers:

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL
DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706306
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170710C

Sample ID **1706306-02A MSD** Batch ID: **81220** TestNo: **SW6020A** Units: **mg/L**
SampType: **MSD** Run ID: **ICP-MS4_170710C** Analysis Date: **7/10/2017 12:20:00 PM** Prep Date: **6/30/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.272	0.0100	0.200	0.0735	99.4	80	120	0.060	15	
Beryllium	0.196	0.00100	0.200	0	98.2	80	120	0.919	15	
Cadmium	0.190	0.00100	0.200	0	94.9	80	120	0.811	15	
Calcium	131	0.300	5.00	126	93.7	80	120	0.731	15	
Chromium	0.201	0.00500	0.200	0	101	80	120	1.02	15	
Cobalt	0.202	0.00500	0.200	0.00343	99.4	80	120	0.855	15	
Lead	0.198	0.00100	0.200	0	98.8	80	120	1.09	15	
Lithium	0.217	0.0100	0.200	0.0204	98.1	80	120	1.04	15	
Magnesium	27.2	0.300	5.00	22.5	93.5	80	120	1.01	15	
Molybdenum	0.199	0.00500	0.200	0	99.6	80	120	0.557	15	
Potassium	6.55	0.300	5.00	1.56	99.9	80	120	1.69	15	
Selenium	0.198	0.00500	0.200	0	99.0	80	120	0.805	15	
Sodium	127	0.300	5.00	122	106	80	120	0.338	15	
Thallium	0.203	0.00150	0.200	0	102	80	120	0.871	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706306
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170711A

The QC data in batch 81220 applies to the following samples: 1706306-01A, 1706306-02A, 1706306-03A, 1706306-04A, 1706306-05A, 1706306-06A, 1706306-07A, 1706306-08A

Sample ID	MB-81220	Batch ID:	81220	TestNo:	SW6020A	Units:	mg/L
SampType:	MBLK	Run ID:	ICP-MS4_170711A	Analysis Date:	7/11/2017 11:31:00 AM	Prep Date:	6/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	<0.0100	0.0300								

Sample ID	LCS-81220	Batch ID:	81220	TestNo:	SW6020A	Units:	mg/L
SampType:	LCS	Run ID:	ICP-MS4_170711A	Analysis Date:	7/11/2017 11:33:00 AM	Prep Date:	6/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.216	0.0300	0.200	0	108	80	120			

Sample ID	LCSD-81220	Batch ID:	81220	TestNo:	SW6020A	Units:	mg/L
SampType:	LCSD	Run ID:	ICP-MS4_170711A	Analysis Date:	7/11/2017 11:35:00 AM	Prep Date:	6/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.214	0.0300	0.200	0	107	80	120	1.03	15	

Sample ID	1706306-02A SD	Batch ID:	81220	TestNo:	SW6020A	Units:	mg/L
SampType:	SD	Run ID:	ICP-MS4_170711A	Analysis Date:	7/11/2017 11:41:00 AM	Prep Date:	6/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.137	0.150	0	0.121				12.3	10	R

Sample ID	1706306-02A PDS	Batch ID:	81220	TestNo:	SW6020A	Units:	mg/L
SampType:	PDS	Run ID:	ICP-MS4_170711A	Analysis Date:	7/11/2017 12:01:00 PM	Prep Date:	6/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.301	0.0300	0.200	0.121	89.9	80	120			

Sample ID	1706306-02A MS	Batch ID:	81220	TestNo:	SW6020A	Units:	mg/L
SampType:	MS	Run ID:	ICP-MS4_170711A	Analysis Date:	7/11/2017 12:03:00 PM	Prep Date:	6/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.319	0.0300	0.200	0.121	98.9	80	120			

Sample ID	1706306-02A MSD	Batch ID:	81220	TestNo:	SW6020A	Units:	mg/L
SampType:	MSD	Run ID:	ICP-MS4_170711A	Analysis Date:	7/11/2017 12:05:00 PM	Prep Date:	6/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.323	0.0300	0.200	0.121	101	80	120	1.30	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706306
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170711A

Sample ID **1706306-02A SD**	Batch ID: **81220**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **SD**	Run ID: **ICP-MS4_170711A**	Analysis Date: **7/11/2017 12:24:00 PM**	Prep Date: **6/30/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	128	15.0	0	129				0.551	10	
Sodium	129	15.0	0	127				1.21	10	

Sample ID **1706306-02A PDS**	Batch ID: **81220**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **PDS**	Run ID: **ICP-MS4_170711A**	Analysis Date: **7/11/2017 12:44:00 PM**	Prep Date: **6/30/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	178	3.00	50.0	129	98.4	80	120			
Sodium	175	3.00	50.0	127	95.8	80	120			

Qualifiers:				
B	Analyte detected in the associated Method Blank	DF	Dilution Factor	
J	Analyte detected between MDL and RL	MDL	Method Detection Limit	Page 7 of 10
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits	
RL	Reporting Limit	S	Spike Recovery outside control limits	
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified	

CLIENT: B-Environmental
Work Order: 1706306
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170707C

The QC data in batch 81256 applies to the following samples: 1706306-01B, 1706306-02B, 1706306-03B, 1706306-04B, 1706306-05B, 1706306-06B, 1706306-07B, 1706306-08B

Sample ID **MB-81256** Batch ID: **81256** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS5_170707C** Analysis Date: **7/7/2017 3:21:00 PM** Prep Date: **7/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.00500	0.0100								
Molybdenum	<0.00200	0.00500								

Sample ID **LCS-81256** Batch ID: **81256** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS5_170707C** Analysis Date: **7/7/2017 3:23:00 PM** Prep Date: **7/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.206	0.0100	0.200	0	103	80	120			
Molybdenum	0.194	0.00500	0.200	0	97.2	80	120			

Sample ID **LCSD-81256** Batch ID: **81256** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS5_170707C** Analysis Date: **7/7/2017 3:24:00 PM** Prep Date: **7/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.202	0.0100	0.200	0	101	80	120	2.00	15	
Molybdenum	0.197	0.00500	0.200	0	98.6	80	120	1.41	15	

Sample ID **1706306-02B SD** Batch ID: **81256** TestNo: **SW6020A** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS5_170707C** Analysis Date: **7/7/2017 3:30:00 PM** Prep Date: **7/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.0250	0.0500	0	0.0178				0	10	
Molybdenum	<0.0100	0.0250	0	0				0	10	

Sample ID **1706306-02B PDS** Batch ID: **81256** TestNo: **SW6020A** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS5_170707C** Analysis Date: **7/7/2017 3:48:00 PM** Prep Date: **7/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.212	0.0100	0.200	0.0178	96.9	80	120			
Molybdenum	0.184	0.00500	0.200	0	91.8	80	120			

Sample ID **1706306-02B MS** Batch ID: **81256** TestNo: **SW6020A** Units: **mg/L**
SampType: **MS** Run ID: **ICP-MS5_170707C** Analysis Date: **7/7/2017 3:49:00 PM** Prep Date: **7/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Lithium	0.217	0.0100	0.200	0.0178	99.4	80	120			
Dissolved Molybdenum	0.191	0.00500	0.200	0	95.5	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706306
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170707C

Sample ID **1706306-02B MSD**	Batch ID: **81256**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **MSD**	Run ID: **ICP-MS5_170707C**	Analysis Date: **7/7/2017 3:51:00 PM**	Prep Date: **7/3/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Lithium	0.218	0.0100	0.200	0.0178	100	80	120	0.720	15	
Dissolved Molybdenum	0.191	0.00500	0.200	0	95.5	80	120	0.028	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706306
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_170629A

The QC data in batch 81192 applies to the following samples: 1706306-01C, 1706306-02C, 1706306-03C, 1706306-04C, 1706306-05C, 1706306-06C, 1706306-07C, 1706306-08C

Sample ID **MB-81192** Batch ID: **81192** TestNo: **M2320 B** Units: **mg/L @ pH 4.37**
SampType: **MBLK** Run ID: **TITRATOR_170629A** Analysis Date: **6/29/2017 11:12:00 AM** Prep Date: **6/29/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0								
Alkalinity, Total (As CaCO3)	<20.0	20.0								

Sample ID **LCS-81192** Batch ID: **81192** TestNo: **M2320 B** Units: **mg/L @ pH 4.08**
SampType: **LCS** Run ID: **TITRATOR_170629A** Analysis Date: **6/29/2017 11:17:00 AM** Prep Date: **6/29/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	52.0	20.0	50.00	0	104	74	129			

Sample ID **1706303-01D-DUP** Batch ID: **81192** TestNo: **M2320 B** Units: **mg/L @ pH 4.49**
SampType: **DUP** Run ID: **TITRATOR_170629A** Analysis Date: **6/29/2017 1:13:00 PM** Prep Date: **6/29/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	42.9	20.0	0	44.20				2.99	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	42.9	20.0	0	44.20				2.99	20	

Sample ID **1706306-02C-DUP** Batch ID: **81192** TestNo: **M2320 B** Units: **mg/L @ pH 4.52**
SampType: **DUP** Run ID: **TITRATOR_170629A** Analysis Date: **6/29/2017 2:55:00 PM** Prep Date: **6/29/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	288	20.0	0	287.1				0.278	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	288	20.0	0	287.1				0.278	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

2609 North River Road, Port Allen, Louisiana 70767
(800) 401-4277 -- FAX (225) 381-2996

ARS International, LLC

Laboratory Analysis Report

ARS1-17-01932

Prepared for:

B-Environmental

Kevin Baros
1606 East Brazos Street
Suite D
Victoria, TX 77901

dbenviro@suddenlinkmail.com; cbenviro@suddenlinkmail.com
swbenviro@suddenlinkmail.com

Phone: 361-572-8224
Fax: 361-572-4115

Project Manager Review

Management Review

Notes: ARS International, LLC assumes no liability for the use or the interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

Contact Person: Questions regarding this analytical report should be addressed to:

Project Manager

ProjectManagers@amrad.com

Phone: 225.381.2991
Fax: 225.381.2996

LELAP Cert# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01932
Client Sample ID: S171771708 (Batch 56929)
Sample Collection Date: 06/26/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01932-001
Date Received: 07/03/17
Report Date: 08/02/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.181	0.127	0.163	0.062	NP		pCi/L	ARS-010/EPA 903.0/904.0	07/28/17 9:36	CTRAMEL	101%
Ra-228	0.931	0.739	1.163	0.539	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/21/17 12:10	CTRAMEL	94%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01932
Client Sample ID: S171771709 (Batch 56929)
Sample Collection Date: 06/26/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01932-002
Date Received: 07/03/17
Report Date: 08/02/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.150	0.114	0.152	0.058	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/28/17 9:36	CTRAMEL	109%
Ra-228	0.873	0.698	1.099	0.508	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/21/17 12:10	CTRAMEL	99%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01932
Client Sample ID: S171771710 (Batch 56929)
Sample Collection Date: 06/26/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01932-003
Date Received: 07/03/17
Report Date: 08/02/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.181	0.139	0.201	0.084	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/28/17 9:36	CTRAMEL	122%
Ra-228	0.119	0.621	1.107	0.512	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/21/17 12:10	CTRAMEL	127%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01932
Client Sample ID: S171771711 (Batch 56929)
Sample Collection Date: 06/26/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01932-004
Date Received: 07/03/17
Report Date: 08/02/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.143	0.168	0.275	0.119	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/28/17 9:36	CTRAMEL	103%
Ra-228	0.575	0.718	1.196	0.557	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/21/17 12:10	CTRAMEL	107%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 · FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01932
Client Sample ID: S171771712 (Batch 56929)
Sample Collection Date: 06/26/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01932-005
Date Received: 07/03/17
Report Date: 08/02/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	1.123	0.316	0.206	0.085	NP		pCi/L	ARS-010/EPA 903.0/904.0	07/28/17 9:36	CTRAMEL	101%
Ra-228	1.944	0.920	1.281	0.595	NP		pCi/L	ARS-010/EPA 903.0/904.0	07/21/17 12:10	CTRAMEL	85%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01932
Client Sample ID: S171771713 (Batch 56929)
Sample Collection Date: 06/26/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01932-006
Date Received: 07/03/17
Report Date: 08/02/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.097	0.115	0.186	0.074	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/28/17 9:36	CTRAMEL	107%
Ra-228	0.006	0.584	1.058	0.490	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/21/17 12:10	CTRAMEL	108%

Project Manager Review

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01932
Client Sample ID: S171771714 (Batch 56929)
Sample Collection Date: 06/26/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01932-007
Date Received: 07/03/17
Report Date: 08/02/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.201	0.127	0.152	0.058	NP		pCi/L	ARS-010/EPA 903.0/904.0	07/28/17 9:36	CTRAMEL	111%
Ra-228	1.164	0.811	1.248	0.580	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/21/17 12:10	CTRAMEL	99%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

INTERNATIONAL

QC Results Report

Sample Delivery Group: ARS1-17-01932

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-01441	LCS	RA-226	24.324	3.928	0.102	27.520	N/A	pCi/L	ARS-010/EPA 903	7/28/17 11:36	CT	88	75%-125%
ARS1-B17-01441	LCS	RA-228	37.261	6.206	1.081	39.784	N/A	pCi/L	ARS-010/EPA 904	7/21/17 14:10	CT	94	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-01441	MBL	RA-226	0.014	0.051	0.098	NA	U	pCi/L	ARS-010/EPA 903	7/28/17 11:36	CT
ARS1-B17-01441	MBL	RA-228	0.263	0.374	0.630	NA	U	pCi/L	ARS-010/EPA 904	7/21/17 14:10	CT

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-01441	LCSD	RA-226	24.324	3.928	21.481	3.484	N/A	pCi/L	ARS-010/EPA 903	7/28/17 11:36	CT	0.38	< 1
ARS1-B17-01441	LCSD	RA-228	37.261	6.206	36.009	5.995	N/A	pCi/L	ARS-010/EPA 904	7/21/17 14:10	CT	0.10	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-01441	LCSD	RA-226	24.324	3.928	21.481	3.484	N/A	pCi/L	ARS-010/EPA 903	7/28/17 11:36	CT	0.54	< 3
ARS1-B17-01441	LCSD	RA-228	37.261	6.206	36.009	5.995	N/A	pCi/L	ARS-010/EPA 904	7/21/17 14:10	CT	0.15	< 3

Matrix Spike

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery(%)	MS Acceptance Range
ARS1-B17-01441	MS	Ra-226	57.731	9.307	0.174	55.148	N/A	pCi/L	ARS-010/EPA 903	7/28/17 11:36	CT	105	60%-140%
ARS1-B17-01441	MS	Ra-228	38.432	6.513	1.510	51.757	N/A	pCi/L	ARS-010/EPA 904	7/21/17 14:10	CT	74	60%-140%
ARS1-B17-01441	MSD	Ra-226	44.951	7.271	0.153	55.632	N/A	pCi/L	ARS-010/EPA 903	7/28/17 11:36	CT	81	60%-140%
ARS1-B17-01441	MSD	Ra-228	44.546	7.450	1.489	50.739	N/A	pCi/L	ARS-010/EPA 904	7/21/17 14:10	CT	88	60%-140%

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

ARS INTERNATIONAL
2609 North River Road • Port Allen, Louisiana 70767
1 (800) 401-4277 • Fax (225) 381-2996

Notes (Case Narrative):

Comments:

1.0) All MDA/MDC values are calculated on a sample specific basis.
2.0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.
3.0) Data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.
4.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix. Modified analyses are indicated by the subsequent addition of "m" to the procedure number (i.e. 900.0M).
5.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than the actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
6.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228 (Gamma Spectroscopy only).
7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234 (Gamma Spectroscopy only).
8.0) All gamma spectroscopy was performed utilizing high purity germanium detectors (**HPGe**).
9.0) ARS makes every attempt to match sample density to calibrated density; however, in some cases, it is not practical or possible to do so and data results may be affected (Gamma Spectroscopy only).
10.0) Gamma spectroscopy results are calculated values based on the **ORTEC®** GammaVision ENV32 Analysis Engine.
11.0) ACLASS DOD and ISO 17025 certification applies only to the following analytes and methods: Gross Alpha and Gross Beta (EPA 900, SM7110B&C, SW846 9310); Radium 226 (EPA 903, EPA 903.1, SM 7500 Ra-B, SW846 9315); Radium 228 (EPA 904, SM 7500 Ra-B SW846 9320); Iodine-131(EPA 901.1); Uranium by ICPMS (EPA 200.8); Strontium 89/90 (EPA 905, Eichrom SRW01, HASL 300 Sr-03-RC); Tritium (EPA 906, EPA 906M); Gamma Emitters (EPA 901.1, SM7120B, HASL 300 Ga-01-R); Americium-241, Curium 242/244, Plutonium 239/240 and 241, Thorium 228/230/232, Uranium 234/233 and 238 (Eichrom ACW03 VBS); Lead 210 (HASL 300 Pb-01-RC, Eichrom OTW01); Polonium 210 (HASL 300 Po-01-RC, HASL 300 Po-02-RC); Technetium-99 (Eichrom TCW02, Eichrom TCS01M).

Method References:

1.0) **EPA 600/4-80-032**; Prescribed Procedures for the Measurements of Radioactivity in Drinking Water, August 1980.
2.0) **Standard Methods for the Examination of Water and Wastewater** (On-Line Edition)
3.0) **EPA SW-846**; Test Methods for Evaluating Solid Waste, (On-Line edition)
4.0) **EPA 600/4/79-020**; Methods for Chemical Analysis of Water and Waste, March 1983.
5.0) **HASL 300**; The Procedures Manual of the Environmental Measurements Laboratory, Volume I, 28th Edition February, 1997.

Definitions:

CRDL	Contract Required Detection Limit
CSU	Combined Standard Uncertainty
DLC	Decision Level Concentration (ANSI N42.23) or critical level
DO	Duplicate Original
DUP	Method Duplicate
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
MDA	Minimum Detectable Activity
MDC	(Minimum Detectable Concentration) minimum concentration of the analyte that ARS can detect utilizing the specific analysis
MBL	Method Blank
MS/MSD	Matrix Spike/Matrix Spike Duplicate
N/A	Not Applicable
NP	Not Provided
NR	Not Referenced
LOD	Limit of Detection
LOQ	Limit of Quantitation

Data Qualifiers:

B	The analyte is found in both the associated method blank and the sample. This flag indicates probable blank contamination.
D	Sample analysis accomplished through dilution.
J	The reported result is an estimated value above the limit of detection but outside of quantitation range (e.g., matrix interference was observed).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).
U	Activity is below the MDC, MDA, MDL, or LOD
N	The analyte is a tentatively identified compound using mass spectrometry or any non-customer requested compounds that are tentatively identified.
*	LCS/LCSD or MS/MSD fails RPD criteria.
S	Spike
SC	Subcontracted out to another qualified laboratory
H	Holding time exceeded

B Environmental Laboratory, LLC
1606 E Brazos Suite D Victoria, Texas 77901 ph. (361) 572-8224

Chain Of Custody Rec

Batch # 56929 | TEMP UN-C: 2.0 | Page 1 of 2

Customer / Report Information | **Billing Information** | X Check box if Billing is the same as Report Information | THERM ID# 3 | TEMP Corr: 1.8

Name: Coleto Creek Power	Address:	Phone: 361-788-5145	FAX:
Attention: Rick Coleman	Attention: PO #	EMAIL: richard.coleman@dynegy.com	
Address: P.O. Box 8; Fannin, TX 77960	Project: CCR Sampling Comments:	Requested Analysis	Completed By laboratory

Sample Information			Matrix	Container			Preservative	B Metals*	C Cl, F*, SO4	C pH	A TDS	E Ra226 & Ra228	D Alk: Tot, Carb, BiCarb	F Diss Li & Mo	Custody Seals Present / Intact	LAB Sample Number
Collected By:																
Client / Field Sample ID	Collected Date	Collected Time	G = Grab C = Composite	DW - Drinking H20 S - Solid WW - Waste H20 SL - Sludge L - Liquid w - Water	TYPE	NUMBER / Size										
BLK	6-26-17	1570	G	WW	P	6 1L 500mL 250mL	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3	X	X	X	X	X	X	X	Yes ☐ No ☐ Intact Yes ☐ No ☐	S171771705
mw-5		1118	G	WW	P	6 1L 500mL 250mL	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3	X	X	X	X	X	X	X		S171771708
mw-5/ms		1118	G	WW	P	6 1L 500mL 250mL	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3	X	X	X	X	X	X	X		
mw-5/MSD		1118	G	WW	P	6 1L 500mL 250mL	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3	X	X	X	X	X	X	X		
* mw-9		1336	G	WW	P	6 1L 500mL 250mL	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3	X	X	X	X	X	X	X		S171771709
mw-9A		1408	G	WW	P	6 1L 500mL 250mL	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3	X	X	X	X	X	X	X		S171771710
mw-10		1440	G	WW	P	6 1L 500mL 250mL	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ _____ ☐ Na2SO3	X	X	X	X	X	X	X		S171771711

Required Turnaround: ☒ Routine (6-10 Business days) **Expedite / Rush:** ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business days ☐ 5 Business days ☐ Other _____ REMARKS:

Surcharge will apply to RUSH TAT Authorized BY: | **Container Type: P=Plastic, G=Glass, V=Voa, O=Other** | **Carrier ID :**

Relinquished By:	Date: 6-26-17	Time: 1615	Received By:	Date: 6-26-17	Time: 1615		
Relinquished By:	Date:	Time:	Received By:	Date:	Time:		
Relinquished By	Date:	Time:	Received By:	Date:	Time:		

FLuoride: MAL 0.25 mg/L Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Mg,K,Na, & Hg

B Environmental Laboratory, LLC

1606 E Brazos Suite D Victoria, Texas 77901 ph. (361) 572-8224

Chain Of Custody Rec

Batch # 56929 | TEMP UN-C: 2.0 | Page 2 of 2

X Check box if Billing is the same as Report Information | THERM ID# 3 | TEMP Corr: 1.8

Customer / Report Information	Billing Information	
Name: Coleto Creek Power	Address:	Phone: 361-788-5145 FAX:
Attention: Rick Coleman	Attention: PO #	EMAIL: richard.coleman@dynegy.com
Address: P.O. Box 8; Fannin, TX 77960	Project: CCR Sampling Comments:	Requested Analysis / Completed By laboratory

Sample Information

Collected By:

Custody Seals Present: Yes ☐ No ☐ Intact: Yes ☐ No ☐

Matrix: DW - Drinking H20, S - Solid, WW - Waste H20, SL - Sludge, L - Liquid, W - Water. G = Grab, C = Composite

Client / Field Sample ID	Collected Date	Collected Time	G/C	Matrix	Type	Number	Size	Preservative	Metals* (B)	Cl, F*, SO4 (C)	pH (C)	TDS (A)	Ra226 & Ra228 (E)	Alk: Tot, Carb, BiCarb (D)	Diss Li & Mo (F)	LAB Sample Number
MW-11	6-26-17	906	G	WW	P	6	1L 500mL 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X	S171771712
PS-3	↓	938	G	WW	P	6	1L 500mL 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X	S171771713
Dup 1	↓		G	WW	P	6	1L 500mL 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X	S171771714
			G	WW	P	6	1L 500mL 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X	
			G	WW	P	6	1L 500mL 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X	
			G	WW	P	6	1L 500mL 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X	
			G	WW	P	6	1L 500mL 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X	

Required Turnaround: ☒ Routine (6-10 Business days) Expedite / Rush: ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business days ☐ 5 Business days ☐ Other REMARKS:

Surcharge will apply to RUSH TAT Authorized BY: | Container Type: P=Plastic, G=Glass, V=Voa, O=Other | Carrier ID :

Relinquished By:	Date:	Time:	Received By:	Date:	Time:
[signature]	6-26-17	1615	[signature]	6-26-17	16:15
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By	Date:	Time:	Received By:	Date:	Time:

FLuoride: MAL 0.25 mg/L Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Mg,K,Na, & Hg

BatchNo: 57039

SAMPLE REPORT

T104704328-17-14

Business

Coleto Creek Power - R Coleman
PO Box 8
Fannin TX 77960
Att: Rick Coleman

Laboratory

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901
ph. 361-572-8224

Reference Information

Project: CCR

Printed: Friday, August 04, 2017

Re: Coleto Creek Power - R Coleman

Dear: Rick Coleman

Attached are the results for sample(s) received on 6/27/2017

The analytical results relate only to the samples tested.
All supporting quality data meets the requirements of NELAC unless noted in the case narrative section of the report.

This report contains 50 pages (including the cover page)

If you have any questions concerning this report, please do not hesitate to call (361) 572-8224 or Fax us at (361) 572-4115

Respectfully Submitted,

Kevin Baros

Laboratory Director

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57039

Batch No: 57039

Sample Receipt Checklist

Date Received: 6/28/2017

Project: CCR

Received By: Woodruff

Login completed by: Woodruff (Signature) 6/28/2017 (LoginDate:)

Carrier Name: Walk In

Shipping container/cooler in good condition?	☑ YES	☐ NO	☐ Not Present
Custody seals intact on shipping container/cooler?	☐ YES	☐ NO	☑ Not Present
Custody seals intact on sample bottles?	☐ YES	☐ NO	☑ Not Present
Chain of Custody present?	☑ YES	☐ NO	
Chain of Custody signed when relinquished and received	☑ YES	☐ NO	
Chain of Custody agrees with sample labels?	☑ YES	☐ NO	
Samples in proper container/bottles?	☑ YES	☐ NO	
Sample containers intact?	☑ YES	☐ NO	
Sufficient sample volume for indicated tests?	☑ YES	☐ NO	
All samples received within holding times?	☑ YES	☐ NO	
Container/Temp Blank - temperature in compliance?	☑ YES	☐ NO	>0 <6 °C On Ice
Water - VOA vials have zero headspace? Bubble < 6mm?	☐ YES	☐ NO	☑ No VOA Vials submitted
Water - pH acceptable upon receipt?	☑ YES	☐ NO	☐ Not Applicable

*TEMP 9.2/9.0 | pH Adjusted? No | Checked By: L. Vahrenkamp

Any No and/or N/A (not applicable) response must be detailed in the comments section below.

Client contacted: | PersonContacted:

Contacted by: | Date Contacted:

Regarding:

Comments:

Therm #3. HNO3 Lot # 2-42-12. pH Paper Lot # 2-25-6. The samples were received the same day they were collected and were in the process of cooling.

Corrective Action:

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57039

Sample Report Information

Sample ID:	S171790842	Client ID:	MW-8	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR
Location: MW #8
Notes:

Batch No: 57039
Sampled: 6/27/2017 8:07 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	66	mg/L	EPA 300	K Baros	6/28/2017 22:43	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	261	mg/L	SM 2320 B		7/6/2017 12:56	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/6/2017 12:56	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	261	mg/L	SM 2320 B		7/6/2017 12:56	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.44	mg/L	EPA 300	K Baros	6/28/2017 22:43	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.17	SU	SM 4500-H+B	C Watts	6/27/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	533	mg/L	SM2540C	C Watts	7/3/2017 16:40	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/10/2017 12:12					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	91	mg/L	EPA 300	K Baros	6/28/2017 22:43	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/19/2017 11:23					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57039

Sample Report Information

Sample ID:	S17179084A	Client ID:	MW-4	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR
Location: MW #4
Notes:

Batch No: 57039
Sampled: 6/27/2017 10:33 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	101	mg/L	EPA 300	K Baros	6/28/2017 17:38	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	251	mg/L	SM 2320 B		7/6/2017 13:14	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/6/2017 13:14	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	251	mg/L	SM 2320 B		7/6/2017 13:14	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.63	mg/L	EPA 300	K Baros	6/28/2017 17:38	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.05	SU	SM 4500-H+B	C Watts	6/27/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	690	mg/L	SM2540C	C Watts	7/3/2017 16:40	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/10/2017 12:14					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	157	mg/L	EPA 300	K Baros	6/28/2017 17:38	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/20/2017 8:12					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57039

Sample Report Information

Sample ID:	S17179084B	Client ID:	BV-15	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR
Location: BV 15
Notes:

Batch No: 57039
Sampled: 6/27/2017 9:54 AM

Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	49	mg/L	EPA 300	K Baros	6/28/2017 18:16	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	203	mg/L	SM 2320 B		7/6/2017 13:21	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/6/2017 13:21	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	203	mg/L	SM 2320 B		7/6/2017 13:21	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.82	mg/L	EPA 300	K Baros	6/28/2017 18:16	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.39	SU	SM 4500-H+B	C Watts	6/27/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	437	mg/L	SM2540C	C Watts	6/29/2017 16:10	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/10/2017 12:32					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	82	mg/L	EPA 300	K Baros	6/28/2017 18:16	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/24/2017 8:46					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57039

Sample Report Information

Sample ID:	S17179084C	Client ID:	BV-21	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR
Location: BV 21
Notes:

Batch No: 57039
Sampled: 6/27/2017 9:25 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	40	mg/L	EPA 300	K Baros	6/28/2017 18:54	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	244	mg/L	SM 2320 B		7/6/2017 13:30	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/6/2017 13:30	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	244	mg/L	SM 2320 B		7/6/2017 13:30	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.6	mg/L	EPA 300	K Baros	6/28/2017 18:54	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.17	SU	SM 4500-H+B	C Watts	6/27/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	420	mg/L	SM2540C	C Watts	7/3/2017 16:40	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/10/2017 12:34					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	46	mg/L	EPA 300	K Baros	6/28/2017 18:54	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/24/2017 8:46					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57039

Sample Report Information

Sample ID:	S17179084D	Client ID:	BV-22	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR
Location: BV 22
Notes:

Batch No: 57039
Sampled: 6/27/2017 8:53 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	39	mg/L	EPA 300	K Baros	6/28/2017 19:33	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	245	mg/L	SM 2320 B		7/6/2017 13:39	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/6/2017 13:39	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	245	mg/L	SM 2320 B		7/6/2017 13:39	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.53	mg/L	EPA 300	K Baros	6/28/2017 19:33	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.24	SU	SM 4500-H+B	C Watts	6/27/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	360	mg/L	SM2540C	C Watts	7/3/2017 16:40	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/10/2017 12:36					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	27	mg/L	EPA 300	K Baros	6/28/2017 19:33	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/24/2017 8:46					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57039

Sample Report Information

Sample ID:	S17179084E	Client ID:	BV-1	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR
Location: BV-1
Notes:

Batch No: 57039
Sampled: 6/27/2017 1:00 PM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	138	mg/L	EPA 300	K Baros	6/28/2017 20:11	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	391	mg/L	SM 2320 B		7/6/2017 13:52	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/6/2017 13:52	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	391	mg/L	SM 2320 B		7/6/2017 13:52	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.76	mg/L	EPA 300	K Baros	6/28/2017 20:11	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.22	SU	SM 4500-H+B	C Watts	6/27/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	893	mg/L	SM2540C	C Watts	7/3/2017 16:40	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/10/2017 12:38					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	176	mg/L	EPA 300	K Baros	6/28/2017 20:11	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/3/2017 8:07					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57039

Sample Report Information

Sample ID:	S17179084F	Client ID:	Dup 2	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR
Location: Dup
Notes:

Batch No: 57039
Sampled: 6/27/2017 12:00 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	136	mg/L	EPA 300	K Baros	6/28/2017 20:49	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	386	mg/L	SM 2320 B		7/6/2017 14:05	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/6/2017 14:05	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	386	mg/L	SM 2320 B		7/6/2017 14:05	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.75	mg/L	EPA 300	K Baros	6/28/2017 20:49	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.33	SU	SM 4500-H+B	C Watts	6/27/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	930	mg/L	SM2540C	C Watts	7/3/2017 16:40	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	c	#			7/10/2017 12:40					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	178	mg/L	EPA 300	K Baros	6/28/2017 20:49	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	c	#			8/3/2017 8:07					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57039

Sample Report Information

Sample ID:	S17179084G	Client ID:	MW-10A	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR
Location: MW 10A
Notes:

Batch No: 57039
Sampled: 6/27/2017 11:24 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	366	mg/L	EPA 300	K Baros	6/28/2017 21:27	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	329	mg/L	SM 2320 B		7/6/2017 14:18	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/6/2017 14:18	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	329	mg/L	SM 2320 B		7/6/2017 14:18	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.45	mg/L	EPA 300	K Baros	6/28/2017 21:27	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	6.8	SU	SM 4500-H+B	C Watts	6/27/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	1150	mg/L	SM2540C	C Watts	7/3/2017 16:40	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/10/2017 12:42					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	84	mg/L	EPA 300	K Baros	6/28/2017 21:27	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/3/2017 8:07					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57039

Sample Report Information

Sample ID:	S17179084H	Client ID:	BV-5	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR
Location: BV-5
Notes:

Batch No: 57039
Sampled: 6/27/2017 1:35 PM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	114	mg/L	EPA 300	K Baros	6/28/2017 22:05	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	381	mg/L	SM 2320 B		7/6/2017 14:31	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/6/2017 14:31	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	381	mg/L	SM 2320 B		7/6/2017 14:31	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.55	mg/L	EPA 300	K Baros	6/28/2017 22:05	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.52	SU	SM 4500-H+B	C Watts	6/27/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	743	mg/L	SM2540C	C Watts	7/3/2017 16:40	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/10/2017 12:44					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	144	mg/L	EPA 300	K Baros	6/28/2017 22:05	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/3/2017 8:07					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57039

QA Summary Report

Parameter	ID	Result	Ref Value	Amt Added	LOQ	Qualifer	Control	Flag	Comments
Method Blank									
.- Chloride, IC	Q171921338	<1mg/L	0		1		1		Blank Acceptable.
6/28/2017 13:50									
Fluoride, IC	Q171921338	<0.25mg/L	0		0.25		0.25		Blank Acceptable.
6/28/2017 13:50									
Nitrate/Nitrite-N	Q171921338	<0.08ppm	0		0.08		0.08		Blank Acceptable.
6/28/2017 13:50									
Solids, Total Dissolved	Q171811357	<25mg/L	0		10		25		Blank Acceptable.
6/29/2017 16:10									
Solids, Total Dissolved	Q171861013	<25mg/L	0		10		25		Blank Acceptable.
7/3/2017 16:40									
Sulfate, IC	Q171921338	<1mg/L	0		1		1		Blank Acceptable.
6/28/2017 13:50									
Duplicate									
Solids, Total Dissolved	Q171811359	7180mg/L	7160		10	0.3%	20		Duplicate RPD Acceptable.
6/29/2017 16:10									
Solids, Total Dissolved	Q171861015	597mg/L	593		10	0.7%	20		Duplicate RPD Acceptable.
7/3/2017 16:40									
Laboratory Control Standard									
.- Chloride, IC	Q171921340	26mg/L	25		1	104.0%	80 - 120		Standard Recovery Acceptable.
6/28/2017 14:28						3.9%	20		Standard RPD Acceptable.
Fluoride, IC	Q171921340	2.07mg/L	2		0.25	103.5%	80 - 120		Standard Recovery Acceptable.
6/28/2017 14:28						3.4%	20		Standard RPD Acceptable.
Nitrate/Nitrite-N	Q171921340	1.05ppm	1.06		0.08	99.1%	80 - 120		Standard Recovery Acceptable.
6/28/2017 14:28						0.9%	20		Standard RPD Acceptable.
Sulfate, IC	Q171921340	26.2mg/L	25		1	104.8%	80 - 120		Standard Recovery Acceptable.
6/28/2017 14:28						4.7%	20		Standard RPD Acceptable.
Matrix Spike									
.- Chloride, IC	Q17192134A	151.4mg/L	151.5	125	1	99.9%	80 - 120		Spike Recovery Acceptable.
6/28/2017 16:22						0.1%	20		Spike RPD Acceptable.
Fluoride, IC	Q17192134A	9.67mg/L	10.22	10	0.25	94.5%	80 - 120		Spike Recovery Acceptable.
6/28/2017 16:22						5.5%	20		Spike RPD Acceptable.
Nitrate/Nitrite-N	Q17192134A	5.407ppm	5.47	5.3	0.08	98.8%	80 - 120		Spike Recovery Acceptable.
6/28/2017 16:22						1.2%	20		Spike RPD Acceptable.
Sulfate, IC	Q17192134A	158mg/L	159.4	125	1	98.9%	70 - 130		Spike Recovery Acceptable.
6/28/2017 16:22						0.9%	20		Spike RPD Acceptable.

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57039 **Page 13 of 50**

Parameter	ID	Result	Ref Value	Amt Added	LOQ	Qualifer	Control	Flag	Comments
Matrix Spike Dup									
Chloride, IC	**Q17192134B**	150.1mg/L	151.5	125	1	98.9%	80 - 120		Spike Recovery Acceptable.
6/28/2017 17:00						0.9%	20		Spike RPD Acceptable.
Fluoride, IC	**Q17192134B**	9.63mg/L	10.22	10	0.25	94.1%	80 - 120		Spike Recovery Acceptable.
6/28/2017 17:00						5.9%	20		Spike RPD Acceptable.
Nitrate/Nitrite-N	**Q17192134B**	5.35ppm	5.47	5.3	0.08	97.7%	80 - 120		Spike Recovery Acceptable.
6/28/2017 17:00						2.2%	20		Spike RPD Acceptable.
Sulfate, IC	**Q17192134B**	157mg/L	159.4	125	1	98.1%	70 - 130		Spike Recovery Acceptable.
6/28/2017 17:00						1.5%	20		Spike RPD Acceptable.

Flag and Qualifier Legend

Negative - Result Detected
Caution - Problem Detected
Warning - Null Value

MDL = Method Detection Limit ***DF = Dilution Factor***
LOQ = Limit of Quantitation ***J = Analyte detected between MDL and LOQ***
S = surrogate standard out of limit ***H = sample out of hold time***

MS, MSD, RPD- Failure may occur due to matrix interference, data released per QA plan

Friday, August 04, 2017 **B Environmental - LDMS QA Report Summary**

Note: THANK YOU!

DHL Analytical, Inc.

Date: *12-Jul-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Lab Order: 1706327

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition and M2320 B.

For Metals analysis by method SW6020A the dissolved Lithium and/or Molybdenum results were slightly higher than the total Lithium and/or Molybdenum results for samples MW-8, BV-21 and MW-10A. These are within the acceptable variation limits. No further corrective actions were taken.

All method blanks, sample duplicates, laboratory spikes, and/or matrix spikes met quality assurance objectives except where noted in the following. For Mercury analysis by method SW7470A the matrix spike and matrix spike duplicate recoveries were below control limits. These are flagged accordingly in the enclosed QC summary report. The "S" flag denotes spike recovery was outside control limits. The LCS was within control limits. No further corrective actions were taken.

For Mercury analysis by method SW7470A the PDS recovery was below control limits. This is flagged accordingly. The serial dilution was within control limits. No further corrective actions were taken.

For Metals analysis by method SW6020A the PDS recovery was below control limits for Magnesium. This is flagged accordingly. The serial dilution was within control limits for this analyte. No further corrective actions were taken.

For Metals analysis by method SW6020A (batch 81220) the PDS recovery was below control limits for Magnesium. This is flagged accordingly. The serial dilution was within control limits for this analyte. No further corrective actions were taken.

For Metals analysis by method SW6020A (batch 81220) the RPD for the serial dilution was slightly above control limits for Boron. This is flagged accordingly. The PDS was within control limits for this analyte. No further corrective actions were taken.

DHL Analytical, Inc.

Date: *12-Jul-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR (57039)
Lab Order: 1706327

Client Sample ID: MW-8
Lab ID: 1706327-01
Alternate ID: S171790842
Collection Date: 06/27/17 08:07 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **RO**
Dissolved Lithium	0.0117	0.00500	0.0100		mg/L	1	07/07/17 03:44 PM
Dissolved Molybdenum	0.0153	0.00200	0.00500		mg/L	1	07/07/17 03:44 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	07/10/17 12:12 PM
Arsenic	0.00939	0.00200	0.00500		mg/L	1	07/10/17 12:12 PM
Barium	0.0633	0.00300	0.0100		mg/L	1	07/10/17 12:12 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 12:12 PM
Boron	1.23	0.100	0.300		mg/L	10	07/11/17 11:57 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 12:12 PM
Calcium	89.6	1.00	3.00		mg/L	10	07/11/17 11:57 AM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	07/10/17 12:12 PM
Cobalt	0.0314	0.00300	0.00500		mg/L	1	07/10/17 12:12 PM
Lead	0.000839	0.000300	0.00100	J	mg/L	1	07/10/17 12:12 PM
Lithium	0.0115	0.00500	0.0100		mg/L	1	07/10/17 12:12 PM
Magnesium	12.7	0.100	0.300		mg/L	1	07/10/17 12:12 PM
Molybdenum	0.0163	0.00200	0.00500		mg/L	1	07/10/17 12:12 PM
Potassium	1.01	0.100	0.300		mg/L	1	07/10/17 12:12 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	07/10/17 12:12 PM
Sodium	86.6	1.00	3.00		mg/L	10	07/11/17 11:57 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	07/10/17 12:12 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	07/07/17 10:45 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	261	10.0	20.0		mg/L @ pH 4.53	1	07/06/17 12:56 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	07/06/17 12:56 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	07/06/17 12:56 PM
Alkalinity, Total (As CaCO3)	261	20.0	20.0		mg/L @ pH 4.53	1	07/06/17 12:56 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *12-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-4
Project:	Coleto Creek Power	**Lab ID:**	1706327-02
Project No:	CCR (57039)	**Alternate ID:**	S17179084A
Lab Order:	1706327	**Collection Date:**	06/27/17 10:33 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **RO**
Dissolved Lithium	0.0184	0.00500	0.0100		mg/L	1	07/07/17 03:46 PM
Dissolved Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	07/07/17 03:46 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	07/10/17 12:14 PM
Arsenic	0.00786	0.00200	0.00500		mg/L	1	07/10/17 12:14 PM
Barium	0.0554	0.00300	0.0100		mg/L	1	07/10/17 12:14 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 12:14 PM
Boron	0.254	0.0100	0.0300		mg/L	1	07/11/17 11:59 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 12:14 PM
Calcium	102	1.00	3.00		mg/L	10	07/11/17 12:26 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	07/10/17 12:14 PM
Cobalt	0.00704	0.00300	0.00500		mg/L	1	07/10/17 12:14 PM
Lead	0.000334	0.000300	0.00100	J	mg/L	1	07/10/17 12:14 PM
Lithium	0.0185	0.00500	0.0100		mg/L	1	07/10/17 12:14 PM
Magnesium	17.4	0.100	0.300		mg/L	1	07/10/17 12:14 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	07/10/17 12:14 PM
Potassium	1.43	0.100	0.300		mg/L	1	07/10/17 12:14 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	07/10/17 12:14 PM
Sodium	106	1.00	3.00		mg/L	10	07/11/17 12:26 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	07/10/17 12:14 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	07/07/17 10:47 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	251	10.0	20.0		mg/L @ pH 4.51	1	07/06/17 01:14 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	07/06/17 01:14 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	07/06/17 01:14 PM
Alkalinity, Total (As CaCO3)	251	20.0	20.0		mg/L @ pH 4.51	1	07/06/17 01:14 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *12-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	BV-15
Project:	Coleto Creek Power	**Lab ID:**	1706327-03
Project No:	CCR (57039)	**Alternate ID:**	S17179084B
Lab Order:	1706327	**Collection Date:**	06/27/17 09:54 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **RO**
Dissolved Lithium	0.00670	0.00500	0.0100	J	mg/L	1	07/07/17 04:09 PM
Dissolved Molybdenum	0.0182	0.00200	0.00500		mg/L	1	07/07/17 04:09 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	07/10/17 12:32 PM
Arsenic	0.00926	0.00200	0.00500		mg/L	1	07/10/17 12:32 PM
Barium	0.0521	0.00300	0.0100		mg/L	1	07/10/17 12:32 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 12:32 PM
Boron	1.26	0.100	0.300		mg/L	10	07/11/17 12:28 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 12:32 PM
Calcium	67.5	1.00	3.00		mg/L	10	07/11/17 12:28 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	07/10/17 12:32 PM
Cobalt	0.0126	0.00300	0.00500		mg/L	1	07/10/17 12:32 PM
Lead	0.00448	0.000300	0.00100		mg/L	1	07/10/17 12:32 PM
Lithium	0.00700	0.00500	0.0100	J	mg/L	1	07/10/17 12:32 PM
Magnesium	8.47	0.100	0.300		mg/L	1	07/10/17 12:32 PM
Molybdenum	0.0183	0.00200	0.00500		mg/L	1	07/10/17 12:32 PM
Potassium	1.15	0.100	0.300		mg/L	1	07/10/17 12:32 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	07/10/17 12:32 PM
Sodium	76.1	1.00	3.00		mg/L	10	07/11/17 12:28 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	07/10/17 12:32 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	07/07/17 10:50 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	203	10.0	20.0		mg/L @ pH 4.52	1	07/06/17 01:21 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	07/06/17 01:21 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	07/06/17 01:21 PM
Alkalinity, Total (As CaCO3)	203	20.0	20.0		mg/L @ pH 4.52	1	07/06/17 01:21 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *12-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	BV-21
Project:	Coleto Creek Power	**Lab ID:**	1706327-04
Project No:	CCR (57039)	**Alternate ID:**	S17179084C
Lab Order:	1706327	**Collection Date:**	06/27/17 09:25 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **RO**
Dissolved Lithium	0.00582	0.00500	0.0100	J	mg/L	1	07/07/17 04:11 PM
Dissolved Molybdenum	0.00236	0.00200	0.00500	J	mg/L	1	07/07/17 04:11 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	07/10/17 12:34 PM
Arsenic	0.128	0.00200	0.00500		mg/L	1	07/10/17 12:34 PM
Barium	0.104	0.00300	0.0100		mg/L	1	07/10/17 12:34 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 12:34 PM
Boron	0.727	0.100	0.300		mg/L	10	07/11/17 12:30 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 12:34 PM
Calcium	84.9	1.00	3.00		mg/L	10	07/11/17 12:30 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	07/10/17 12:34 PM
Cobalt	0.00841	0.00300	0.00500		mg/L	1	07/10/17 12:34 PM
Lead	0.00112	0.000300	0.00100		mg/L	1	07/10/17 12:34 PM
Lithium	0.00550	0.00500	0.0100	J	mg/L	1	07/10/17 12:34 PM
Magnesium	8.53	0.100	0.300		mg/L	1	07/10/17 12:34 PM
Molybdenum	0.00241	0.00200	0.00500	J	mg/L	1	07/10/17 12:34 PM
Potassium	0.959	0.100	0.300		mg/L	1	07/10/17 12:34 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	07/10/17 12:34 PM
Sodium	61.3	1.00	3.00		mg/L	10	07/11/17 12:30 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	07/10/17 12:34 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	07/07/17 10:52 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	244	10.0	20.0		mg/L @ pH 4.52	1	07/06/17 01:30 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	07/06/17 01:30 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	07/06/17 01:30 PM
Alkalinity, Total (As CaCO3)	244	20.0	20.0		mg/L @ pH 4.52	1	07/06/17 01:30 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *12-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	BV-22
Project:	Coleto Creek Power	**Lab ID:**	1706327-05
Project No:	CCR (57039)	**Alternate ID:**	S17179084D
Lab Order:	1706327	**Collection Date:**	06/27/17 08:53 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **RO**
Dissolved Lithium	0.00690	0.00500	0.0100	J	mg/L	1	07/07/17 04:12 PM
Dissolved Molybdenum	0.00779	0.00200	0.00500		mg/L	1	07/07/17 04:12 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	07/10/17 12:36 PM
Arsenic	0.00657	0.00200	0.00500		mg/L	1	07/10/17 12:36 PM
Barium	0.0508	0.00300	0.0100		mg/L	1	07/10/17 12:36 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 12:36 PM
Boron	0.638	0.100	0.300		mg/L	10	07/11/17 12:32 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 12:36 PM
Calcium	88.7	1.00	3.00		mg/L	10	07/11/17 12:32 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	07/10/17 12:36 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	07/10/17 12:36 PM
Lead	0.00168	0.000300	0.00100		mg/L	1	07/10/17 12:36 PM
Lithium	0.00730	0.00500	0.0100	J	mg/L	1	07/10/17 12:36 PM
Magnesium	10.3	0.100	0.300		mg/L	1	07/10/17 12:36 PM
Molybdenum	0.00810	0.00200	0.00500		mg/L	1	07/10/17 12:36 PM
Potassium	0.965	0.100	0.300		mg/L	1	07/10/17 12:36 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	07/10/17 12:36 PM
Sodium	60.5	1.00	3.00		mg/L	10	07/11/17 12:32 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	07/10/17 12:36 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	07/07/17 10:54 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	245	10.0	20.0		mg/L @ pH 4.52	1	07/06/17 01:39 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	07/06/17 01:39 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	07/06/17 01:39 PM
Alkalinity, Total (As CaCO3)	245	20.0	20.0		mg/L @ pH 4.52	1	07/06/17 01:39 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *12-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	BV-1
Project:	Coleto Creek Power	**Lab ID:**	1706327-06
Project No:	CCR (57039)	**Alternate ID:**	S17179084E
Lab Order:	1706327	**Collection Date:**	06/27/17 01:00 PM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **RO**
Dissolved Lithium	0.0150	0.00500	0.0100		mg/L	1	07/07/17 04:14 PM
Dissolved Molybdenum	0.00444	0.00200	0.00500	J	mg/L	1	07/07/17 04:14 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	07/10/17 12:38 PM
Arsenic	0.0107	0.00200	0.00500		mg/L	1	07/10/17 12:38 PM
Barium	0.0498	0.00300	0.0100		mg/L	1	07/10/17 12:38 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 12:38 PM
Boron	1.29	0.200	0.600		mg/L	20	07/11/17 12:34 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 12:38 PM
Calcium	77.3	2.00	6.00		mg/L	20	07/11/17 12:34 PM
Chromium	0.00947	0.00200	0.00500		mg/L	1	07/10/17 12:38 PM
Cobalt	0.402	0.00300	0.00500		mg/L	1	07/10/17 12:38 PM
Lead	0.00381	0.000300	0.00100		mg/L	1	07/10/17 12:38 PM
Lithium	0.0165	0.00500	0.0100		mg/L	1	07/10/17 12:38 PM
Magnesium	11.0	0.100	0.300		mg/L	1	07/10/17 12:38 PM
Molybdenum	0.00481	0.00200	0.00500	J	mg/L	1	07/10/17 12:38 PM
Potassium	0.584	0.100	0.300		mg/L	1	07/10/17 12:38 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	07/10/17 12:38 PM
Sodium	257	2.00	6.00		mg/L	20	07/11/17 12:34 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	07/10/17 12:38 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	07/07/17 10:56 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	391	10.0	20.0		mg/L @ pH 4.52	1	07/06/17 01:52 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	07/06/17 01:52 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	07/06/17 01:52 PM
Alkalinity, Total (As CaCO3)	391	20.0	20.0		mg/L @ pH 4.52	1	07/06/17 01:52 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *12-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	Dup2
Project:	Coleto Creek Power	**Lab ID:**	1706327-07
Project No:	CCR (57039)	**Alternate ID:**	S17179084F
Lab Order:	1706327	**Collection Date:**	06/27/17
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **RO**
Dissolved Lithium	0.0136	0.00500	0.0100		mg/L	1	07/07/17 04:16 PM
Dissolved Molybdenum	0.00451	0.00200	0.00500	J	mg/L	1	07/07/17 04:16 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	07/10/17 12:40 PM
Arsenic	0.0105	0.00200	0.00500		mg/L	1	07/10/17 12:40 PM
Barium	0.0472	0.00300	0.0100		mg/L	1	07/10/17 12:40 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 12:40 PM
Boron	1.29	0.200	0.600		mg/L	20	07/11/17 12:36 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 12:40 PM
Calcium	75.1	2.00	6.00		mg/L	20	07/11/17 12:36 PM
Chromium	0.00947	0.00200	0.00500		mg/L	1	07/10/17 12:40 PM
Cobalt	0.400	0.00300	0.00500		mg/L	1	07/10/17 12:40 PM
Lead	0.00397	0.000300	0.00100		mg/L	1	07/10/17 12:40 PM
Lithium	0.0151	0.00500	0.0100		mg/L	1	07/10/17 12:40 PM
Magnesium	10.6	0.100	0.300		mg/L	1	07/10/17 12:40 PM
Molybdenum	0.00459	0.00200	0.00500	J	mg/L	1	07/10/17 12:40 PM
Potassium	0.593	0.100	0.300		mg/L	1	07/10/17 12:40 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	07/10/17 12:40 PM
Sodium	249	2.00	6.00		mg/L	20	07/11/17 12:36 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	07/10/17 12:40 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	07/07/17 10:59 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	386	10.0	20.0		mg/L @ pH 4.53	1	07/06/17 02:05 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	07/06/17 02:05 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	07/06/17 02:05 PM
Alkalinity, Total (As CaCO3)	386	20.0	20.0		mg/L @ pH 4.53	1	07/06/17 02:05 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *12-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-10A
Project:	Coleto Creek Power	**Lab ID:**	1706327-08
Project No:	CCR (57039)	**Alternate ID:**	S17179084G
Lab Order:	1706327	**Collection Date:**	06/27/17 11:24 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **RO**
Dissolved Lithium	0.0257	0.00500	0.0100		mg/L	1	07/07/17 04:18 PM
Dissolved Molybdenum	0.00269	0.00200	0.00500	J	mg/L	1	07/07/17 04:18 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	07/10/17 12:42 PM
Arsenic	0.00516	0.00200	0.00500		mg/L	1	07/10/17 12:42 PM
Barium	0.0986	0.00300	0.0100		mg/L	1	07/10/17 12:42 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 12:42 PM
Boron	0.179	0.0100	0.0300		mg/L	1	07/11/17 12:38 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 12:42 PM
Calcium	194	2.00	6.00		mg/L	20	07/11/17 12:40 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	07/10/17 12:42 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	07/10/17 12:42 PM
Lead	0.000712	0.000300	0.00100	J	mg/L	1	07/10/17 12:42 PM
Lithium	0.0258	0.00500	0.0100		mg/L	1	07/10/17 12:42 PM
Magnesium	30.4	2.00	6.00		mg/L	20	07/11/17 12:40 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	07/10/17 12:42 PM
Potassium	1.75	0.100	0.300		mg/L	1	07/10/17 12:42 PM
Selenium	0.00271	0.00200	0.00500	J	mg/L	1	07/10/17 12:42 PM
Sodium	169	2.00	6.00		mg/L	20	07/11/17 12:40 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	07/10/17 12:42 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	07/07/17 11:01 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	329	10.0	20.0		mg/L @ pH 4.53	1	07/06/17 02:18 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	07/06/17 02:18 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	07/06/17 02:18 PM
Alkalinity, Total (As CaCO3)	329	20.0	20.0		mg/L @ pH 4.53	1	07/06/17 02:18 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *12-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	BV-5
Project:	Coleto Creek Power	**Lab ID:**	1706327-09
Project No:	CCR (57039)	**Alternate ID:**	S17179084H
Lab Order:	1706327	**Collection Date:**	06/27/17 01:35 PM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **RO**
Dissolved Lithium	0.0194	0.00500	0.0100		mg/L	1	07/07/17 04:19 PM
Dissolved Molybdenum	0.00890	0.00200	0.00500		mg/L	1	07/07/17 04:19 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	07/10/17 12:44 PM
Arsenic	0.00830	0.00200	0.00500		mg/L	1	07/10/17 12:44 PM
Barium	0.0412	0.00300	0.0100		mg/L	1	07/10/17 12:44 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 12:44 PM
Boron	1.14	0.200	0.600		mg/L	20	07/11/17 12:42 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 12:44 PM
Calcium	100	2.00	6.00		mg/L	20	07/11/17 12:42 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	07/10/17 12:44 PM
Cobalt	0.0460	0.00300	0.00500		mg/L	1	07/10/17 12:44 PM
Lead	0.000810	0.000300	0.00100	J	mg/L	1	07/10/17 12:44 PM
Lithium	0.0198	0.00500	0.0100		mg/L	1	07/10/17 12:44 PM
Magnesium	17.5	0.100	0.300		mg/L	1	07/10/17 12:44 PM
Molybdenum	0.00942	0.00200	0.00500		mg/L	1	07/10/17 12:44 PM
Potassium	0.194	0.100	0.300	J	mg/L	1	07/10/17 12:44 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	07/10/17 12:44 PM
Sodium	174	2.00	6.00		mg/L	20	07/11/17 12:42 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	07/10/17 12:44 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	07/07/17 11:03 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	381	10.0	20.0		mg/L @ pH 4.52	1	07/06/17 02:31 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	07/06/17 02:31 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	07/06/17 02:31 PM
Alkalinity, Total (As CaCO3)	381	20.0	20.0		mg/L @ pH 4.52	1	07/06/17 02:31 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *12-Jul-17*

CLIENT: B-Environmental
Work Order: 1706327
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_170707A

The QC data in batch 81301 applies to the following samples: 1706327-01A, 1706327-02A, 1706327-03A, 1706327-04A, 1706327-05A, 1706327-06A, 1706327-07A, 1706327-08A, 1706327-09A

Sample ID **MB-81301** Batch ID: **81301** TestNo: **SW7470A** Units: **mg/L**
SampType: **MBLK** Run ID: **CETAC2_HG_170707A** Analysis Date: **7/7/2017 10:38:44 AM** Prep Date: **7/6/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.0000800	0.000200								

Sample ID **LCS-81301** Batch ID: **81301** TestNo: **SW7470A** Units: **mg/L**
SampType: **LCS** Run ID: **CETAC2_HG_170707A** Analysis Date: **7/7/2017 10:41:00 AM** Prep Date: **7/6/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00204	0.000200	0.00200	0	102	85	115			

Sample ID **LCSD-81301** Batch ID: **81301** TestNo: **SW7470A** Units: **mg/L**
SampType: **LCSD** Run ID: **CETAC2_HG_170707A** Analysis Date: **7/7/2017 10:43:16 AM** Prep Date: **7/6/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00209	0.000200	0.00200	0	104	85	115	2.42	15	

Sample ID **1706358-01A SD** Batch ID: **81301** TestNo: **SW7470A** Units: **mg/L**
SampType: **SD** Run ID: **CETAC2_HG_170707A** Analysis Date: **7/7/2017 11:08:10 AM** Prep Date: **7/6/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.000400	0.00100	0	0				0	10	

Sample ID **1706358-01A PDS** Batch ID: **81301** TestNo: **SW7470A** Units: **mg/L**
SampType: **PDS** Run ID: **CETAC2_HG_170707A** Analysis Date: **7/7/2017 11:10:27 AM** Prep Date: **7/6/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00133	0.000200	0.00250	0	53.2	85	115			S

Sample ID **1706358-01A MS** Batch ID: **81301** TestNo: **SW7470A** Units: **mg/L**
SampType: **MS** Run ID: **CETAC2_HG_170707A** Analysis Date: **7/7/2017 11:12:43 AM** Prep Date: **7/6/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00104	0.000200	0.00200	0	52.0	80	120			S

Sample ID **1706358-01A MSD** Batch ID: **81301** TestNo: **SW7470A** Units: **mg/L**
SampType: **MSD** Run ID: **CETAC2_HG_170707A** Analysis Date: **7/7/2017 11:14:59 AM** Prep Date: **7/6/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00108	0.000200	0.00200	0	54.0	80	120	3.77	15	S

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706327
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170710C

The QC data in batch 81220 applies to the following samples: 1706327-01A, 1706327-02A, 1706327-03A, 1706327-04A, 1706327-05A, 1706327-06A, 1706327-07A, 1706327-08A, 1706327-09A

Sample ID **MB-81220** Batch ID: **81220** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS4_170710C** Analysis Date: **7/10/2017 11:46:00 AM** Prep Date: **6/30/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.000800	0.00250								
Arsenic	<0.00200	0.00500								
Barium	<0.00300	0.0100								
Beryllium	<0.000300	0.00100								
Cadmium	<0.000300	0.00100								
Calcium	<0.100	0.300								
Chromium	<0.00200	0.00500								
Cobalt	<0.00300	0.00500								
Lead	<0.000300	0.00100								
Lithium	<0.00500	0.0100								
Magnesium	<0.100	0.300								
Molybdenum	<0.00200	0.00500								
Potassium	<0.100	0.300								
Selenium	<0.00200	0.00500								
Sodium	<0.100	0.300								
Thallium	<0.000500	0.00150								

Sample ID **LCS-81220** Batch ID: **81220** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS4_170710C** Analysis Date: **7/10/2017 11:49:00 AM** Prep Date: **6/30/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.195	0.00250	0.200	0	97.6	80	120			
Arsenic	0.198	0.00500	0.200	0	99.0	80	120			
Barium	0.198	0.0100	0.200	0	99.0	80	120			
Beryllium	0.204	0.00100	0.200	0	102	80	120			
Cadmium	0.198	0.00100	0.200	0	99.2	80	120			
Calcium	5.17	0.300	5.00	0	103	80	120			
Chromium	0.205	0.00500	0.200	0	103	80	120			
Cobalt	0.203	0.00500	0.200	0	102	80	120			
Lead	0.197	0.00100	0.200	0	98.3	80	120			
Lithium	0.209	0.0100	0.200	0	105	80	120			
Magnesium	5.07	0.300	5.00	0	101	80	120			
Molybdenum	0.194	0.00500	0.200	0	97.2	80	120			
Potassium	5.13	0.300	5.00	0	103	80	120			
Selenium	0.201	0.00500	0.200	0	100	80	120			
Sodium	5.10	0.300	5.00	0	102	80	120			
Thallium	0.201	0.00150	0.200	0	100	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706327
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170710C

Sample ID LCSD-81220	Batch ID: 81220	TestNo: SW6020A	Units: mg/L
SampType: LCSD	Run ID: ICP-MS4_170710C	Analysis Date: 7/10/2017 11:50:00 AM	Prep Date: 6/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.198	0.00250	0.200	0	98.8	80	120	1.26	15	
Arsenic	0.197	0.00500	0.200	0	98.4	80	120	0.602	15	
Barium	0.198	0.0100	0.200	0	99.1	80	120	0.127	15	
Beryllium	0.205	0.00100	0.200	0	102	80	120	0.350	15	
Cadmium	0.198	0.00100	0.200	0	99.2	80	120	0.055	15	
Calcium	5.10	0.300	5.00	0	102	80	120	1.44	15	
Chromium	0.204	0.00500	0.200	0	102	80	120	0.731	15	
Cobalt	0.203	0.00500	0.200	0	102	80	120	0.028	15	
Lead	0.197	0.00100	0.200	0	98.5	80	120	0.229	15	
Lithium	0.206	0.0100	0.200	0	103	80	120	1.59	15	
Magnesium	5.07	0.300	5.00	0	101	80	120	0.130	15	
Molybdenum	0.196	0.00500	0.200	0	97.9	80	120	0.664	15	
Potassium	5.12	0.300	5.00	0	102	80	120	0.199	15	
Selenium	0.198	0.00500	0.200	0	99.1	80	120	1.40	15	
Sodium	5.06	0.300	5.00	0	101	80	120	0.737	15	
Thallium	0.202	0.00150	0.200	0	101	80	120	0.702	15	

Sample ID 1706306-02A SD	Batch ID: 81220	TestNo: SW6020A	Units: mg/L
SampType: SD	Run ID: ICP-MS4_170710C	Analysis Date: 7/10/2017 11:56:00 AM	Prep Date: 6/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.00400	0.0125	0	0				0	10	
Arsenic	<0.0100	0.0250	0	0.00955				0	10	
Barium	0.0746	0.0500	0	0.0735				1.49	10	
Beryllium	<0.00150	0.00500	0	0				0	10	
Cadmium	<0.00150	0.00500	0	0				0	10	
Chromium	<0.0100	0.0250	0	0				0	10	
Cobalt	<0.0150	0.0250	0	0.00343				0	10	
Lead	<0.00150	0.00500	0	0				0	10	
Lithium	<0.0250	0.0500	0	0.0204				0	10	
Magnesium	23.1	1.50	0	22.5				2.37	10	
Molybdenum	<0.0100	0.0250	0	0				0	10	
Potassium	1.56	1.50	0	1.56				0.131	10	
Selenium	<0.0100	0.0250	0	0				0	10	
Thallium	<0.00250	0.00750	0	0				0	10	

Sample ID 1706306-02A PDS	Batch ID: 81220	TestNo: SW6020A	Units: mg/L
SampType: PDS	Run ID: ICP-MS4_170710C	Analysis Date: 7/10/2017 12:16:00 PM	Prep Date: 6/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.200	0.00250	0.200	0	99.9	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706327
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170710C

Sample ID	1706306-02A PDS	Batch ID:	81220	TestNo:	SW6020A	Units:	mg/L
SampType:	PDS	Run ID:	ICP-MS4_170710C	Analysis Date:	7/10/2017 12:16:00 PM	Prep Date:	6/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.208	0.00500	0.200	0.00955	99.4	80	120			
Barium	0.272	0.0100	0.200	0.0735	99.3	80	120			
Beryllium	0.206	0.00100	0.200	0	103	80	120			
Cadmium	0.197	0.00100	0.200	0	98.6	80	120			
Chromium	0.211	0.00500	0.200	0	105	80	120			
Cobalt	0.206	0.00500	0.200	0.00343	101	80	120			
Lead	0.199	0.00100	0.200	0	99.3	80	120			
Lithium	0.222	0.0100	0.200	0.0204	101	80	120			
Magnesium	25.9	0.300	5.00	22.5	67.1	80	120			S
Molybdenum	0.198	0.00500	0.200	0	99.0	80	120			
Potassium	6.33	0.300	5.00	1.56	95.5	80	120			
Selenium	0.196	0.00500	0.200	0	97.9	80	120			
Thallium	0.201	0.00150	0.200	0	101	80	120			

Sample ID	1706306-02A MS	Batch ID:	81220	TestNo:	SW6020A	Units:	mg/L
SampType:	MS	Run ID:	ICP-MS4_170710C	Analysis Date:	7/10/2017 12:18:00 PM	Prep Date:	6/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.197	0.00250	0.200	0	98.3	80	120			
Arsenic	0.211	0.00500	0.200	0.00955	101	80	120			
Barium	0.272	0.0100	0.200	0.0735	99.5	80	120			
Beryllium	0.198	0.00100	0.200	0	99.1	80	120			
Cadmium	0.191	0.00100	0.200	0	95.7	80	120			
Calcium	132	0.300	5.00	126	113	80	120			
Chromium	0.199	0.00500	0.200	0	99.6	80	120			
Cobalt	0.201	0.00500	0.200	0.00343	98.6	80	120			
Lead	0.200	0.00100	0.200	0	99.8	80	120			
Lithium	0.219	0.0100	0.200	0.0204	99.2	80	120			
Magnesium	26.9	0.300	5.00	22.5	88.1	80	120			
Molybdenum	0.200	0.00500	0.200	0	100	80	120			
Potassium	6.66	0.300	5.00	1.56	102	80	120			
Selenium	0.200	0.00500	0.200	0	99.8	80	120			
Sodium	128	0.300	5.00	122	114	80	120			
Thallium	0.202	0.00150	0.200	0	101	80	120			

Sample ID	1706306-02A MSD	Batch ID:	81220	TestNo:	SW6020A	Units:	mg/L
SampType:	MSD	Run ID:	ICP-MS4_170710C	Analysis Date:	7/10/2017 12:20:00 PM	Prep Date:	6/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.196	0.00250	0.200	0	98.0	80	120	0.355	15	
Arsenic	0.210	0.00500	0.200	0.00955	100	80	120	0.532	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706327
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170710C

Sample ID **1706306-02A MSD** Batch ID: **81220** TestNo: **SW6020A** Units: **mg/L**
SampType: **MSD** Run ID: **ICP-MS4_170710C** Analysis Date: **7/10/2017 12:20:00 PM** Prep Date: **6/30/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.272	0.0100	0.200	0.0735	99.4	80	120	0.060	15	
Beryllium	0.196	0.00100	0.200	0	98.2	80	120	0.919	15	
Cadmium	0.190	0.00100	0.200	0	94.9	80	120	0.811	15	
Calcium	131	0.300	5.00	126	93.7	80	120	0.731	15	
Chromium	0.201	0.00500	0.200	0	101	80	120	1.02	15	
Cobalt	0.202	0.00500	0.200	0.00343	99.4	80	120	0.855	15	
Lead	0.198	0.00100	0.200	0	98.8	80	120	1.09	15	
Lithium	0.217	0.0100	0.200	0.0204	98.1	80	120	1.04	15	
Magnesium	27.2	0.300	5.00	22.5	93.5	80	120	1.01	15	
Molybdenum	0.199	0.00500	0.200	0	99.6	80	120	0.557	15	
Potassium	6.55	0.300	5.00	1.56	99.9	80	120	1.69	15	
Selenium	0.198	0.00500	0.200	0	99.0	80	120	0.805	15	
Sodium	127	0.300	5.00	122	106	80	120	0.338	15	
Thallium	0.203	0.00150	0.200	0	102	80	120	0.871	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706327
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170711A

The QC data in batch 81220 applies to the following samples: 1706327-01A, 1706327-02A, 1706327-03A, 1706327-04A, 1706327-05A, 1706327-06A, 1706327-07A, 1706327-08A, 1706327-09A

Sample ID	MB-81220	Batch ID:	81220	TestNo:	SW6020A	Units:	mg/L
SampType:	MBLK	Run ID:	ICP-MS4_170711A	Analysis Date:	7/11/2017 11:31:00 AM	Prep Date:	6/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	<0.0100	0.0300								

Sample ID	LCS-81220	Batch ID:	81220	TestNo:	SW6020A	Units:	mg/L
SampType:	LCS	Run ID:	ICP-MS4_170711A	Analysis Date:	7/11/2017 11:33:00 AM	Prep Date:	6/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.216	0.0300	0.200	0	108	80	120			

Sample ID	LCSD-81220	Batch ID:	81220	TestNo:	SW6020A	Units:	mg/L
SampType:	LCSD	Run ID:	ICP-MS4_170711A	Analysis Date:	7/11/2017 11:35:00 AM	Prep Date:	6/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.214	0.0300	0.200	0	107	80	120	1.03	15	

Sample ID	1706306-02A SD	Batch ID:	81220	TestNo:	SW6020A	Units:	mg/L
SampType:	SD	Run ID:	ICP-MS4_170711A	Analysis Date:	7/11/2017 11:41:00 AM	Prep Date:	6/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.137	0.150	0	0.121				12.3	10	R

Sample ID	1706306-02A PDS	Batch ID:	81220	TestNo:	SW6020A	Units:	mg/L
SampType:	PDS	Run ID:	ICP-MS4_170711A	Analysis Date:	7/11/2017 12:01:00 PM	Prep Date:	6/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.301	0.0300	0.200	0.121	89.9	80	120			

Sample ID	1706306-02A MS	Batch ID:	81220	TestNo:	SW6020A	Units:	mg/L
SampType:	MS	Run ID:	ICP-MS4_170711A	Analysis Date:	7/11/2017 12:03:00 PM	Prep Date:	6/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.319	0.0300	0.200	0.121	98.9	80	120			

Sample ID	1706306-02A MSD	Batch ID:	81220	TestNo:	SW6020A	Units:	mg/L
SampType:	MSD	Run ID:	ICP-MS4_170711A	Analysis Date:	7/11/2017 12:05:00 PM	Prep Date:	6/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.323	0.0300	0.200	0.121	101	80	120	1.30	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706327
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170711A

Sample ID	1706306-02A SD	Batch ID:	81220	TestNo:	SW6020A	Units:	mg/L
SampType:	SD	Run ID:	ICP-MS4_170711A	Analysis Date:	7/11/2017 12:24:00 PM	Prep Date:	6/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	128	15.0	0	129				0.551	10	
Sodium	129	15.0	0	127				1.21	10	

Sample ID	1706306-02A PDS	Batch ID:	81220	TestNo:	SW6020A	Units:	mg/L
SampType:	PDS	Run ID:	ICP-MS4_170711A	Analysis Date:	7/11/2017 12:44:00 PM	Prep Date:	6/30/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	178	3.00	50.0	129	98.4	80	120			
Sodium	175	3.00	50.0	127	95.8	80	120			

Qualifiers:				
	B	Analyte detected in the associated Method Blank	DF	Dilution Factor
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
	RL	Reporting Limit	S	Spike Recovery outside control limits
	J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706327
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170707C

The QC data in batch 81256 applies to the following samples: 1706327-01B, 1706327-02B, 1706327-03B, 1706327-04B, 1706327-05B, 1706327-06B, 1706327-07B, 1706327-08B, 1706327-09B

Sample ID	MB-81256	Batch ID:	81256	TestNo:	SW6020A	Units:	mg/L
SampType:	MBLK	Run ID:	ICP-MS5_170707C	Analysis Date:	7/7/2017 3:21:00 PM	Prep Date:	7/3/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.00500	0.0100								
Molybdenum	<0.00200	0.00500								

Sample ID	LCS-81256	Batch ID:	81256	TestNo:	SW6020A	Units:	mg/L
SampType:	LCS	Run ID:	ICP-MS5_170707C	Analysis Date:	7/7/2017 3:23:00 PM	Prep Date:	7/3/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.206	0.0100	0.200	0	103	80	120			
Molybdenum	0.194	0.00500	0.200	0	97.2	80	120			

Sample ID	LCSD-81256	Batch ID:	81256	TestNo:	SW6020A	Units:	mg/L
SampType:	LCSD	Run ID:	ICP-MS5_170707C	Analysis Date:	7/7/2017 3:24:00 PM	Prep Date:	7/3/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.202	0.0100	0.200	0	101	80	120	2.00	15	
Molybdenum	0.197	0.00500	0.200	0	98.6	80	120	1.41	15	

Sample ID	1706306-02B SD	Batch ID:	81256	TestNo:	SW6020A	Units:	mg/L
SampType:	SD	Run ID:	ICP-MS5_170707C	Analysis Date:	7/7/2017 3:30:00 PM	Prep Date:	7/3/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.0250	0.0500	0	0.0178				0	10	
Molybdenum	<0.0100	0.0250	0	0				0	10	

Sample ID	1706306-02B PDS	Batch ID:	81256	TestNo:	SW6020A	Units:	mg/L
SampType:	PDS	Run ID:	ICP-MS5_170707C	Analysis Date:	7/7/2017 3:48:00 PM	Prep Date:	7/3/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.212	0.0100	0.200	0.0178	96.9	80	120			
Molybdenum	0.184	0.00500	0.200	0	91.8	80	120			

Sample ID	1706306-02B MS	Batch ID:	81256	TestNo:	SW6020A	Units:	mg/L
SampType:	MS	Run ID:	ICP-MS5_170707C	Analysis Date:	7/7/2017 3:49:00 PM	Prep Date:	7/3/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.217	0.0100	0.200	0.0178	99.4	80	120			
Molybdenum	0.191	0.00500	0.200	0	95.5	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706327
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170707C

Sample ID	1706306-02B MSD	Batch ID:	81256	TestNo:	SW6020A	Units:	mg/L
SampType:	MSD	Run ID:	ICP-MS5_170707C	Analysis Date:	7/7/2017 3:51:00 PM	Prep Date:	7/3/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.218	0.0100	0.200	0.0178	100	80	120	0.720	15	
Molybdenum	0.191	0.00500	0.200	0	95.5	80	120	0.028	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706327
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_170706A

The QC data in batch 81294 applies to the following samples: 1706327-01C, 1706327-02C, 1706327-03C, 1706327-04C, 1706327-05C, 1706327-06C, 1706327-07C, 1706327-08C, 1706327-09C

Sample ID **1706327-01C-DUP** Batch ID: **81294** TestNo: **M2320 B** Units: **mg/L @ pH 4.51**
SampType: **DUP** Run ID: **TITRATOR_170706A** Analysis Date: **7/6/2017 1:05:00 PM** Prep Date: **7/6/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	267	20.0	0	261.2				2.16	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	267	20.0	0	261.2				2.16	20	

Sample ID **MB-81294** Batch ID: **81294** TestNo: **M2320 B** Units: **mg/L @ pH 4.49**
SampType: **MBLK** Run ID: **TITRATOR_170706A** Analysis Date: **7/6/2017 2:33:00 PM** Prep Date: **7/6/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0								
Alkalinity, Total (As CaCO3)	<20.0	20.0								

Sample ID **LCS-81294** Batch ID: **81294** TestNo: **M2320 B** Units: **mg/L @ pH 4.13**
SampType: **LCS** Run ID: **TITRATOR_170706A** Analysis Date: **7/6/2017 2:38:00 PM** Prep Date: **7/6/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	52.5	20.0	50.00	0	105	74	129			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

2609 North River Road, Port Allen, Louisiana 70767
(800) 401-4277 -- FAX (225) 381-2996

ARS International, LLC

Laboratory Analysis Report

ARS1-17-01930

Prepared for:

B-Environmental

Kevin Baros
1606 East Brazos Street
Suite D
Victoria, TX 77901

dbenviro@suddenlinkmail.com; cbenviro@suddenlinkmail.com
swbenviro@suddenlinkmail.com

Phone: 361-572-8224
Fax: 361-572-4115

Project Manager Review

Management Review

Notes: ARS International, LLC assumes no liability for the use or the interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

Contact Person: Questions regarding this analytical report should be addressed to:

Project Manager
ProjectManagers@amrad.com
Phone: 225.381.2991
Fax: 225.381.2996

LELAP Cert# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01930
Client Sample ID: S171790842 (Batch 57039)
Sample Collection Date: 06/27/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01930-001
Date Received: 07/03/17
Report Date: 08/03/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.094	0.121	0.200	0.082	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/19/17 11:23	SCAUSEY	108%
Ra-228	0.845	1.002	1.664	0.785	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/12/17 12:19	SCAUSEY	88%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01930
Client Sample ID: S17179084A (Batch 57039)
Sample Collection Date: 06/27/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01930-002
Date Received: 07/03/17
Report Date: 08/03/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.639	0.231	0.173	0.066	NP	Q	pCi/L	ARS-010/EPA 903.0/904.0	07/20/17 8:12	CTRAMEL	90%
Ra-228	-0.048	0.706	1.284	0.596	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/13/17 12:00	CTRAMEL	86%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01930
Client Sample ID: S171790848 (Batch 57039)
Sample Collection Date: 06/27/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01930-003
Date Received: 07/03/17
Report Date: 08/03/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.355	0.176	0.179	0.068	NP	Q	pCi/L	ARS-010/EPA 903.0/904.0	07/24/17 8:46	CTRAMEL	91%
Ra-228	0.798	0.769	1.244	0.577	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/17/17 12:39	CTRAMEL	94%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01930
Client Sample ID: S17179084C (Batch 57039)
Sample Collection Date: 06/27/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01930-004
Date Received: 07/03/17
Report Date: 08/03/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.317	0.166	0.201	0.084	NP	Q	pCi/L	ARS-010/EPA 903.0/904.0	07/24/17 8:46	CTRAMEL	100%
Ra-228	0.203	0.612	1.074	0.497	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/17/17 12:39	CTRAMEL	104%

Project Manager Review

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01930
Client Sample ID: S17179084D (Batch 57039)
Sample Collection Date: 06/27/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01930-005
Date Received: 07/03/17
Report Date: 08/03/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.115	0.163	0.276	0.119	NP	U,Q	pCi/L	ARS-010/EPA 903.0/904.0	07/24/17 8:46	CTRAMEL	104%
Ra-228	0.735	0.688	1.108	0.512	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/17/17 12:39	CTRAMEL	99%

Project Manager Review

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01930
Client Sample ID: S17179084E (Batch 57039)
Sample Collection Date: 06/27/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01930-006
Date Received: 07/03/17
Report Date: 08/03/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.379	0.176	0.173	0.067	NP		pCi/L	ARS-010/EPA 903.0/904.0	08/03/17 8:07	CTRAMEL	98%
Ra-228	0.990	0.756	1.184	0.550	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/27/17 12:11	CTRAMEL	91%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01930
Client Sample ID: S17179084F (Batch 57039)
Sample Collection Date: 06/27/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01930-007
Date Received: 07/03/17
Report Date: 08/03/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.233	0.136	0.159	0.062	NP		pCi/L	ARS-010/EPA 903.0/904.0	08/03/17 8:07	CTRAMEL	103%
Ra-228	1.162	0.693	1.024	0.473	NP		pCi/L	ARS-010/EPA 903.0/904.0	07/27/17 12:11	CTRAMEL	104%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01930
Client Sample ID: S17179084G (Batch 57039)
Sample Collection Date: 06/27/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01930-008
Date Received: 07/03/17
Report Date: 08/03/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.134	0.129	0.200	0.084	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/03/17 8:07	CTRAMEL	105%
Ra-228	0.669	0.742	1.222	0.570	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/27/17 12:11	CTRAMEL	98%

Project Manager Review

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01930
Client Sample ID: S17179084H (Batch 57039)
Sample Collection Date: 06/27/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01930-009
Date Received: 07/03/17
Report Date: 08/03/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.364	0.249	0.352	0.150	NP		pCi/L	ARS-010/EPA 903.0/904.0	08/03/17 8:07	CTRAMEL	73%
Ra-228	1.883	1.084	1.597	0.741	NP		pCi/L	ARS-010/EPA 903.0/904.0	07/27/17 12:11	CTRAMEL	78%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

INTERNATIONAL

QC Results Report

Sample Delivery Group: ARS1-17-01930

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-01375	LCS	RA-226	23.217	3.753	0.106	27.545	N/A	pCi/L	ARS-010/EPA 903	7/19/17 9:21	SC	84	75%-125%
ARS1-B17-01375	LCS	RA-228	37.334	6.220	1.089	39.784	N/A	pCi/L	ARS-010/EPA 904	7/19/17 9:21	SC	94	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-01375	MBL	RA-226	0.047	0.059	0.097	NA	U	pCi/L	ARS-010/EPA 903	7/19/17 9:21	SC
ARS1-B17-01375	MBL	RA-228	0.085	0.375	0.664	NA	U	pCi/L	ARS-010/EPA 904	7/19/17 9:21	SC

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-01375	LCSD	RA-226	23.217	3.753	23.497	3.803	N/A	pCi/L	ARS-010/EPA 903	7/19/17 9:21	SC	0.04	< 1
ARS1-B17-01375	LCSD	RA-228	37.334	6.220	36.006	5.998	N/A	pCi/L	ARS-010/EPA 904	7/19/17 9:21	SC	0.11	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-01375	LCSD	RA-226	23.217	3.753	23.497	3.803	N/A	pCi/L	ARS-010/EPA 903	7/19/17 9:21	SC	0.05	< 3
ARS1-B17-01375	LCSD	RA-228	37.334	6.220	36.006	5.998	N/A	pCi/L	ARS-010/EPA 904	7/19/17 9:21	SC	0.15	< 3

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

Batch # 57039

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

INTERNATIONAL

QC Results Report

Sample Delivery Group: ARS1-17-01930

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-01381	LCS	RA-226	24.238	3.914	0.106	27.502	N/A	pCi/L	ARS-010/EPA 903	7/20/17 10:11	CT	88	75%-125%
ARS1-B17-01381	LCS	RA-228	39.109	6.492	1.063	39.784	N/A	pCi/L	ARS-010/EPA 904	7/13/17 13:59	CT	98	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-01381	MBL	RA-226	0.270	0.108	0.097	NA		pCi/L	ARS-010/EPA 903	7/20/17 10:11	CT
ARS1-B17-01381	MBL	RA-228	0.702	0.394	0.577	NA		pCi/L	ARS-010/EPA 904	7/13/17 13:59	CT

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-01381	LCSD	RA-226	24.238	3.914	24.422	3.950	N/A	pCi/L	ARS-010/EPA 903	7/20/17 10:11	CT	0.02	< 1
ARS1B17-01381	LCSD	RA-228	39.109	6.492	34.948	5.821	N/A	pCi/L	ARS-010/EPA 904	7/13/17 13:59	CT	0.34	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-01381	LCSD	RA-226	24.238	3.914	24.422	3.950	N/A	pCi/L	ARS-010/EPA 903	7/20/17 10:11	CT	0.03	< 3
ARS1-B17-01381	LCSD	RA-228	39.109	6.492	34.948	5.821	N/A	pCi/L	ARS-010/EPA 904	7/13/17 13:59	CT	0.48	< 3

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

INTERNATIONAL

QC Results Report

Sample Delivery Group: ARS1-17-01930

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-01419	LCS	RA-226	29.330	4.720	0.102	27.528	N/A	pCi/L	ARS-010/EPA 903	7/24/17 10:46	CT	107	75%-125%
ARS1-B17-01419	LCS	RA-228	35.419	5.916	1.083	39.784	N/A	pCi/L	ARS-010/EPA 904	7/17/17 14:38	CT	89	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-01419	MBL	RA-226	0.111	0.075	0.099	NA		pCi/L	ARS-010/EPA 903	7/24/17 10:46	CT
ARS1-B17-01419	MBL	RA-228	0.145	0.345	0.597	NA	U	pCi/L	ARS-010/EPA 904	7/17/17 14:38	CT

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-01419	LCSD	RA-226	29.330	4.720	19.481	3.168	N/A	pCi/L	ARS-010/EPA 903	7/24/17 10:46	CT	1.25	< 1
ARS1-B17-01419	LCSD	RA-228	35.419	5.916	31.804	5.332	N/A	pCi/L	ARS-010/EPA 904	7/17/17 14:38	CT	0.32	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-01419	LCSD	RA-226	29.330	4.720	19.481	3.168	N/A	pCi/L	ARS-010/EPA 903	7/24/17 10:46	CT	1.73	< 3
ARS1-B17-01419	LCSD	RA-228	35.419	5.916	31.804	5.332	N/A	pCi/L	ARS-010/EPA 904	7/17/17 14:38	CT	0.45	< 3

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

INTERNATIONAL

QC Results Report

Sample Delivery Group: ARS1-17-01930

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-01493	LCS	RA-226	25.885	4.175	0.109	27.630	N/A	pCi/L	ARS-010/EPA 903	8/3/17 8:07	SC	94	75%-125%
ARS1-B17-01493	LCS	RA-228	34.437	5.749	1.041	39.784	N/A	pCi/L	ARS-010/EPA 904	8/3/17 8:07	SC	87	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-01493	MBL	RA-226	0.017	0.051	0.097	NA	U	pCi/L	ARS-010/EPA 903	8/3/17 8:07	SC
ARS1-B17-01493	MBL	RA-228	0.118	0.335	0.586	NA	U	pCi/L	ARS-010/EPA 904	8/3/17 8:07	SC

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-01493	LCSD	RA-226	25.885	4.175	28.276	4.560	N/A	pCi/L	ARS-010/EPA 903	8/3/17 8:07	SC	0.27	< 1
ARS1-B17-01493	LCSD	RA-228	34.437	5.749	34.101	5.697	N/A	pCi/L	ARS-010/EPA 904	8/3/17 8:07	SC	0.03	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-01493	LCSD	RA-226	25.885	4.175	28.276	4.560	N/A	pCi/L	ARS-010/EPA 903	8/3/17 8:07	SC	0.39	< 3
ARS1-B17-01493	LCSD	RA-228	34.437	5.749	34.101	5.697	N/A	pCi/L	ARS-010/EPA 904	8/3/17 8:07	SC	0.04	< 3

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

ARS INTERNATIONAL

2609 North River Road • Port Allen, Louisiana 70767

1 (800) 401-4277 • Fax (225) 381-2996

Notes (Case Narrative):

Comments:

1.0) All MDA/MDC values are calculated on a sample specific basis.
2.0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.
3.0) Data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.
4.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix. Modified analyses are indicated by the subsequent addition of "m" to the procedure number (i.e. 900.0M).
5.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than the actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
6.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228 (Gamma Spectroscopy only).
7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234 (Gamma Spectroscopy only).
8.0) All gamma spectroscopy was performed utilizing high purity germanium detectors (**HPGe**).
9.0) ARS makes every attempt to match sample density to calibrated density; however, in some cases, it is not practical or possible to do so and data results may be affected (Gamma Spectroscopy only).
10.0) Gamma spectroscopy results are calculated values based on the **ORTEC®** GammaVision ENV32 Analysis Engine.
11.0) ACLASS DOD and ISO 17025 certification applies only to the following analytes and methods: Gross Alpha and Gross Beta (EPA 900, SM7110B&C, SW846 9310); Radium 226 (EPA 903, EPA 903.1, SM 7500 Ra-B, SW846 9315); Radium 228 (EPA 904, SM 7500 Ra-B SW846 9320); Iodine-131(EPA 901.1); Uranium by ICPMS (EPA 200.8); Strontium 89/90 (EPA 905, Eichrom SRW01, HASL 300 Sr-03-RC); Tritium (EPA 906, EPA 906M); Gamma Emitters (EPA 901.1, SM7120B, HASL 300 Ga-01-R); Americium-241, Curium 242/244, Plutonium 239/240 and 241, Thorium 228/230/232, Uranium 234/233 and 238 (Eichrom ACW03 VBS); Lead 210 (HASL 300 Pb-01-RC, Eichrom OTW01); Polonium 210 (HASL 300 Po-01-RC, HASL 300 Po-02-RC); Technetium-99 (Eichrom TCW02, Eichrom TCS01M).

Method References:

1.0) **EPA 600/4-80-032**; Prescribed Procedures for the Measurements of Radioactivity in Drinking Water, August 1980.
2.0) **Standard Methods for the Examination of Water and Wastewater** (On-Line Edition)
3.0) **EPA SW-846**; Test Methods for Evaluating Solid Waste, (On-Line edition)
4.0) **EPA 600/4/79-020**; Methods for Chemical Analysis of Water and Waste, March 1983.
5.0) **HASL 300**; The Procedures Manual of the Environmental Measurements Laboratory, Volume I, 28th Edition February, 1997.

Definitions:

CRDL	Contract Required Detection Limit
CSU	Combined Standard Uncertainty
DLC	Decision Level Concentration (ANSI N42.23) or critical level
DO	Duplicate Original
DUP	Method Duplicate
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
MDA	Minimum Detectable Activity
MDC	(Minimum Detectable Concentration) minimum concentration of the analyte that ARS can detect utilizing the specific analysis
MBL	Method Blank
MS/MSD	Matrix Spike/Matrix Spike Duplicate
N/A	Not Applicable
NP	Not Provided
NR	Not Referenced
LOD	Limit of Detection
LOQ	Limit of Quantitation

Data Qualifiers:

B	The analyte is found in both the associated method blank and the sample. This flag indicates probable blank contamination.
D	Sample analysis accomplished through dilution.
J	The reported result is an estimated value above the limit of detection but outside of quantitation range (e.g., matrix interference was observed).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).
U	Activity is below the MDC, MDA, MDL, or LOD
N	The analyte is a tentatively identified compound using mass spectrometry or any non-customer requested compounds that are tentatively identified.
*	LCS/LCSD or MS/MSD fails RPD criteria.
S	Spike
SC	Subcontracted out to another qualified laboratory
H	Holding time exceeded

B Environmental Laboratory, LLC

1606 E Brazos Suite D Victoria, Texas 77901 ph. (361) 572-8224

Chain Of Custody Rec

Batch # 57039 TEMP UN-C: 9.2 Page 1 of 2

THERM ID# 3 TEMP Corr: 9.0

Customer / Report Information

Name: Coleto Creek Power

Attention: Rick Coleman

Address: P.O. Box 8; Fannin, TX 77960

Billing Information X Check box if Billing is the same as Report Information

Address:

Attention: PO #

Project: CCR Sampling

Comments:

Phone: 361-788-5145 FAX:

EMAIL: richard.coleman@dynegy.com

Requested Analysis (B, E, D, A, A, C, F) | Completed By laboratory

Sample Information				Matrix	Container			Preservative												Custody Seals Present / Intact / LAB Sample Number
Client / Field Sample ID	Collected Date	Collected Time	G = Grab C = Composite	DW - Drinking H20 S - Solid WW - Waste H20 SL - Sludge L - Liquid w - Water	TYPE	NUMBER	Size					Metals*	Cl, F*, SO4	pH	TDS	Ra226 & Ra228	Alk.Tot, Carb,BiCarb	Diss Li & Mo		
mw-8	6-27-17	807	G	WW	P	6	1L 500mL 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE	☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3			X	X	X	X	X	X	X		S171790842
mw-4		1033	G	WW	P	6	1L 500mL 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE	☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3			X	X	X	X	X	X	X		S17179084A
BV-15		954	G	WW	P	6	1L 500mL 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE	☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3			X	X	X	X	X	X	X		S17179084B
BV-21		925	G	WW	P	6	1L 500mL 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE	☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3			X	X	X	X	X	X	X		S17179084C
BV-22		853	G	WW	P	6	1L 500mL 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE	☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3			X	X	X	X	X	X	X		S17179084D
BV-1		1300	G	WW	P	6	1L 500mL 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE	☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3			X	X	X	X	X	X	X		S17179084E
Dup 2			G	WW	P	6	1L 500mL 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE	☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3			X	X	X	X	X	X	X		S17179084F

Required Turnaround: ☒ Routine (6-10 Business days) Expedite / Rush: ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business days ☐ 5 Business days ☐ Other REMARKS:

Surcharge will apply to RUSH TAT Authorized BY: | Container Type: P=Plastic, G=Glass, V=Voa, O=Other | Carrier ID :

Relinquished By:		Date:	6-27-17	Time:	1400	Received By:	Date:	6/27/17	Time: 1400
Relinquished By:		Date:	6/27/17	Time:	1625	Received By:	Date:	6-27-17	Time: 1625
Relinquished By		Date:		Time:		Received By:	Date:		Time:

FLuoride: MAL 0.25 mg/L Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Mg,K,Na, & Hg

B Environmental Laboratory, LLC
1606 E Brazos Suite D Victoria, Texas 77901 ph. (361) 572-8224

Chain Of Custody Rec

Batch # 57039 | TEMP UN-C: 9.2 | Page 2 of 2
THERM ID# 3 | TEMP Corr: 9.0

X Check box if Billing is the same as Report Information

Customer / Report Information	Billing Information	
Name: Coleto Creek Power	Address:	Phone: 361-788-5145 FAX:
Attention: Rick Coleman	Attention: PO #	EMAIL: richard.coleman@dynegy.com
Address: P.O. Box 8; Fannin, TX 77960	Project: CCR Sampling Comments:	

Matrix: DW - Drinking H20, S - Solid, WW - Waste H20, SL - Sludge, L - Liquid, w - Water
C = Composite, G = Grab

Requested Analysis

Client / Field Sample ID	Collected Date	Collected Time	C/G	Matrix	Container Type	Number	Size	Preservative	Metals* D	Cl, F*, SO4 A	pH A	TDS C	Ra226 & Ra228 E	Alk:Tot, Carb, BiCarb B	Diss Li & Mo F			LAB Sample Number
mw-10 A	6-27-17	1124	G	WW	P	6	1L / 500mL / 250mL	☒ ICE, ☒ HNO3	X	X	X	X	X	X	X			S17179084G
BV-5	6-27-17	1335	G	WW	P	6	1L / 500mL / 250mL	☒ ICE, ☒ HNO3	X	X	X	X	X	X	X			S17179084H
			G	WW	P	6	1L / 500mL / 250mL	☒ ICE, ☒ HNO3	X	X	X	X	X	X	X			
			G	WW	P	6	1L / 500mL / 250mL	☒ ICE, ☒ HNO3	X	X	X	X	X	X	X			
			G	WW	P	6	1L / 500mL / 250mL	☒ ICE, ☒ HNO3	X	X	X	X	X	X	X			
			G	WW	P	6	1L / 500mL / 250mL	☒ ICE, ☒ HNO3	X	X	X	X	X	X	X			
			G	WW	P	6	1L / 500mL / 250mL	☒ ICE, ☒ HNO3	X	X	X	X	X	X	X			

Preservative options: H2SO4, H3PO4, ICE, HNO3, NaOH, HCL, Na2SO3

Custody Seals Present: Yes ☐ No ☐
Intact: Yes ☐ No ☐

Required Turnaround: ☒ Routine (6-10 Business days) Expedite / Rush: ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business days ☐ 5 Business days ☐ Other ______ REMARKS:

Surcharge will apply to RUSH TAT Authorized BY:
Container Type: P=Plastic, G=Glass, V=Voa, O=Other | Carrier ID :

Relinquished By: [signature]	Date: 6-27-17	Time: 1400	Received By: [signature]	Date: 6/27/17	Time: 1400
Relinquished By: [signature]	Date: 6/27/17	Time: 1625	Received By: [signature]	Date: 6-27-17	Time: 1625
Relinquished By	Date:	Time:	Received By:	Date:	Time:

FLuoride: MAL 0.25 mg/L Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Mg,K,Na, & Hg

BatchNo: 57084

SAMPLE REPORT

T104704328-17-14

Business

Coleto Creek Power - R Coleman
PO Box 8
Fannin TX 77960
Att: Rick Coleman

Laboratory

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901
ph. 361-572-8224

Reference Information

Project: CCR Sampling

Printed: Thursday, August 03, 2017

Re: Coleto Creek Power - R Coleman

Dear: Rick Coleman

Attached are the results for sample(s) received on 6/28/2017

The analytical results relate only to the samples tested.
All supporting quality data meets the requirements of NELAC unless noted in the case narrative section of the report.

This report contains 31 pages (including the cover page)

If you have any questions concerning this report, please do not hesitate to call (361) 572-8224 or Fax us at (361) 572-4115

Respectfully Submitted,

Kevin Baros

Laboratory Director

Batch No: 57084

Sample Receipt Checklist

Date Received: 6/29/2017

Project	CCR Sampling	Received By:	Woodruff
Login completed by:	Woodruff	6/29/2017	
	Signature	LoginDate:	

Carrier Name: Walk In

Shipping container/cooler in good condition?	☑ YES	☐ NO	☐ Not Present	
Custody seals intact on shipping container/cooler?	☐ YES	☐ NO	☑ Not Present	
Custody seals intact on sample bottles?	☐ YES	☐ NO	☑ Not Present	
Chain of Custody present?	☑ YES	☐ NO		
Chain of Custody signed when relinquished and received	☑ YES	☐ NO		
Chain of Custody agrees with sample labels?	☑ YES	☐ NO		
Samples in proper container/bottles?	☑ YES	☐ NO		
Sample containers intact?	☑ YES	☐ NO		
Sufficient sample volume for indicated tests?	☑ YES	☐ NO		
All samples received within holding times?	☑ YES	☐ NO		
Container/Temp Blank - temperature in compliance?	☑ YES	☐ NO	>0 <6 °C On Ice	
Water - VOA vials have zero headspace? Bubble < 6mm?	☐ YES	☐ NO	☑ No VOA Vials submitted	
Water - pH acceptable upon receipt?	☑ YES	☐ NO	☐ Not Applicable	

*TEMP	8.7/8.5	pH Adjusted?	No	Checked By	L. Vahrenkamp

Any No and/or N/A (not applicable) response must be detailed in the comments section below.

Client contacted		PersonContacted	
Contacted by:		Date Contacted:	

Regarding:

Comments:
Therm #3. HNO3 Lot # 2-42-12. pH Paper lot # 2-25-6.

Corrective Action:

Sample Report Information

Sample ID:	S171791654	Client ID:	BV-10	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV-10
Notes:

Batch No: 57084
Sampled: 6/28/2017 8:42 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	83	mg/L	EPA 300	K Baros	6/29/2017 17:34	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	292	mg/L	SM 2320 B		7/5/2017 15:59	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/5/2017 15:59	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	292	mg/L	SM 2320 B		7/5/2017 15:59	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.82	mg/L	EPA 300	K Baros	6/29/2017 17:34	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.36	SU	SM 4500-H+B	C Watts	6/28/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	593	mg/L	SM2540C	C Watts	7/3/2017 16:40	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/10/2017 14:13					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	78	mg/L	EPA 300	K Baros	6/29/2017 17:34	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/24/2017 8:46					☑	ARS International

Sample Report Information

Sample ID:	S17179165A	Client ID:	BV-19	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV-19
Notes:

Batch No: 57084
Sampled: 6/28/2017 10:19 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	131	mg/L	EPA 300	K Baros	6/29/2017 15:40	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	334	mg/L	SM 2320 B		7/5/2017 16:20	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/5/2017 16:20	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	334	mg/L	SM 2320 B		7/5/2017 16:20	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.51	mg/L	EPA 300	K Baros	6/29/2017 15:40	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	6.91	SU	SM 4500-H+B	C Watts	6/28/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	843	mg/L	SM2540C	C Watts	7/7/2017 16:45	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/10/2017 14:27					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	57.9	mg/L	EPA 300	K Baros	6/29/2017 15:40	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/24/2017 8:46					☑	ARS International

Sample Report Information

Sample ID:	S17179165B	Client ID:	MW-6	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #6
Notes:

Batch No: 57084
Sampled: 6/28/2017 11:03 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	69	mg/L	EPA 300	K Baros	6/29/2017 16:18	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	183	mg/L	SM 2320 B		7/5/2017 16:26	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/5/2017 16:26	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	183	mg/L	SM 2320 B		7/5/2017 16:26	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.37	mg/L	EPA 300	K Baros	6/29/2017 16:18	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.15	SU	SM 4500-H+B	C Watts	6/28/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	570	mg/L	SM2540C	C Watts	7/7/2017 16:45	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/10/2017 14:29					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	99	mg/L	EPA 300	K Baros	6/29/2017 16:18	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/24/2017 8:46					☑	ARS International

Sample Report Information

Sample ID:	S17179165C	Client ID:	MW-7	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #7
Notes:

Batch No: 57084
Sampled: 6/28/2017 2:09 PM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	89	mg/L	EPA 300	K Baros	6/29/2017 16:56	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	255	mg/L	SM 2320 B		7/5/2017 16:35	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/5/2017 16:35	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	255	mg/L	SM 2320 B		7/5/2017 16:35	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.61	mg/L	EPA 300	K Baros	6/29/2017 16:56	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.08	SU	SM 4500-H+B	C Watts	6/28/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	690	mg/L	SM2540C	C Watts	7/7/2017 16:45	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/10/2017 14:31					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	74	mg/L	EPA 300	K Baros	6/29/2017 16:56	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			7/24/2017 8:46					☑	ARS International

QA Summary Report

Parameter	ID	Result	Ref Value	Amt Added	LOQ	Qualifer	Control	Flag	Comments
.Method Blank									
.- Chloride, IC	Q171921504	<1mg/L	0		1		1		Blank Acceptable.
6/29/2017 14:23									
Fluoride, IC	Q171921504	<0.25mg/L	0		0.25		0.25		Blank Acceptable.
6/29/2017 14:23									
Solids, Total Dissolved	Q171861013	<25mg/L	0		10		25		Blank Acceptable.
7/3/2017 16:40									
Solids, Total Dissolved	Q171921206	<25mg/L	0		10		25		Blank Acceptable.
7/7/2017 16:45									
Sulfate, IC	Q171921504	<1mg/L	0		1		1		Blank Acceptable.
6/29/2017 14:23									
Duplicate									
pH (Standard Units)	Q17180111A	7.37SU	7.36		2	0.1%	20		Duplicate RPD Acceptable.
6/28/2017 16:45									
Solids, Total Dissolved	Q171921211	3750mg/L	3780		10	0.8%	20		Duplicate RPD Acceptable.
7/7/2017 16:45									
Solids, Total Dissolved	Q171861015	597mg/L	593		10	0.7%	20		Duplicate RPD Acceptable.
7/3/2017 16:40									
Laboratory Control Standard									
.- Chloride, IC	Q171921505	26.1mg/L	25		1	104.4%	80 - 120		Standard Recovery Acceptable.
6/29/2017 15:01						4.3%	20		Standard RPD Acceptable.
Fluoride, IC	Q171921505	2.07mg/L	2		0.25	103.5%	80 - 120		Standard Recovery Acceptable.
6/29/2017 15:01						3.4%	20		Standard RPD Acceptable.
pH (Standard Units)	Q171801113	7.03SU	7		2	100.4%	80 - 120		Standard Recovery Acceptable.
6/28/2017 16:45						0.4%	20		Standard RPD Acceptable.
Sulfate, IC	Q171921505	26.2mg/L	25		1	104.8%	80 - 120		Standard Recovery Acceptable.
6/29/2017 15:01						4.7%	20		Standard RPD Acceptable.
Matrix Spike									
.- Chloride, IC	Q17192150A	100.8mg/L	100.2	25	1	102.4%	80 - 120		Spike Recovery Acceptable.
6/29/2017 18:12						0.6%	20		Spike RPD Acceptable.
Fluoride, IC	Q17192150A	2.61mg/L	2.74	2	0.25	93.5%	80 - 120		Spike Recovery Acceptable.
6/29/2017 18:12						4.9%	20		Spike RPD Acceptable.
Sulfate, IC	Q17192150A	96.9mg/L	95.1	25	1	107.2%	70 - 130		Spike Recovery Acceptable.
6/29/2017 18:12						1.9%	20		Spike RPD Acceptable.
Matrix Spike Dup									
.- Chloride, IC	Q17192150B	100.6mg/L	100.2	25	1	101.6%	80 - 120		Spike Recovery Acceptable.
6/29/2017 18:50						0.4%	20		Spike RPD Acceptable.
Fluoride, IC	Q17192150B	2.59mg/L	2.74	2	0.25	92.5%	80 - 120		Spike Recovery Acceptable.
6/29/2017 18:50						5.6%	20		Spike RPD Acceptable.
Sulfate, IC	Q17192150B	95.9mg/L	95.1	25	1	103.2%	70 - 130		Spike Recovery Acceptable.
6/29/2017 18:50						0.8%	20		Spike RPD Acceptable.

Flag and Qualifier Legend

Negative - Result Detected	***MDL = Method Detection Limit***	***DF = Dilution Factor***
Caution - Problem Detected	*LOQ = Limit of Quantitation*	***j = Analyte detected between MDL and LOQ***
Warning - Null Value	***S = surrogate standard out of limit***	***H = sample out of hold time***

MS, MSD, RPD- Failure may occur due to matrix interference, data released per QA plan

Thursday, August 03, 2017 **B Environmental - LDMS QA Report Summary**

Note: THANK YOU!

DHL Analytical, Inc. **Date:** *12-Jul-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Lab Order: 1706358

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition and Standard Methods.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives except where noted in the following. For Metals Analysis, the recovery of Sodium for the Matrix Spike and Matrix Spike Duplicate (1706358-01 MS/MSD) was above the method control limits. This is flagged accordingly in the QC Summary Report. This analyte was within method control limits in the associated LCS. No further corrective action was taken.

For Metals Analysis, the RPD of Boron for the Serial Dilution (1706358-01 SD) was above the method control limit. This is flagged accordingly in the QC Summary Report. This analyte was within method control limits in the associated Post Digestion Spike. No further corrective action was taken.

For Mercury Analysis, the recoveries of the Matrix Spike and Matrix Spike Duplicate (1706358-01 MS/MSD) were below the method control limits. These are flagged accordingly in the QC Summary Report. The associated LCS was within method control limits. No further corrective action was taken.

For Mercury Analysis, the recovery of the Post Digestion Spike (1706358-01 PDS) was below the method control limits. This is flagged accordingly in the QC Summary Report. The associated Serial Dilution was within method control limits. No further corrective action was taken.

For Total/Dissolved Metals Analysis, the results of Dissolved Lithium/Molybdenum for all of the samples were slightly higher than the results of Total Lithium/Molybdenum. The results were within acceptable analytical variation limits. No further corrective action was taken.

DHL Analytical, Inc.

Date: *12-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	BV-10
Project:	Coleto Creek Power	**Lab ID:**	1706358-01
Project No:	CCR (57084)	**Alternate ID:**	S171791654
Lab Order:	1706358	**Collection Date:**	06/28/17 08:42 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **RO**
Dissolved Lithium	0.0117	0.00500	0.0100		mg/L	1	07/12/17 01:05 PM
Dissolved Molybdenum	0.00945	0.00200	0.00500		mg/L	1	07/12/17 01:05 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	07/10/17 02:13 PM
Arsenic	0.0129	0.00200	0.00500		mg/L	1	07/10/17 02:13 PM
Barium	0.0476	0.00300	0.0100		mg/L	1	07/10/17 02:13 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 02:13 PM
Boron	1.14	0.100	0.300		mg/L	10	07/11/17 10:56 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 02:13 PM
Calcium	44.0	1.00	3.00		mg/L	10	07/11/17 10:56 AM
Chromium	0.00415	0.00200	0.00500	J	mg/L	1	07/10/17 02:13 PM
Cobalt	0.213	0.00300	0.00500		mg/L	1	07/10/17 02:13 PM
Lead	0.00562	0.000300	0.00100		mg/L	1	07/10/17 02:13 PM
Lithium	0.0111	0.00500	0.0100		mg/L	1	07/10/17 02:13 PM
Magnesium	7.03	0.100	0.300		mg/L	1	07/10/17 02:13 PM
Molybdenum	0.00797	0.00200	0.00500		mg/L	1	07/10/17 02:13 PM
Potassium	0.744	0.100	0.300		mg/L	1	07/10/17 02:13 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	07/10/17 02:13 PM
Sodium	165	1.00	3.00		mg/L	10	07/11/17 10:56 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	07/10/17 02:13 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	07/07/17 11:05 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	292	10.0	20.0		mg/L @ pH 4.53	1	07/05/17 03:59 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	07/05/17 03:59 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	07/05/17 03:59 PM
Alkalinity, Total (As CaCO3)	292	20.0	20.0		mg/L @ pH 4.53	1	07/05/17 03:59 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *12-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	BV-19
Project:	Coleto Creek Power	**Lab ID:**	1706358-02
Project No:	CCR (57084)	**Alternate ID:**	S17179165A
Lab Order:	1706358	**Collection Date:**	06/28/17 10:19 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **RO**
Dissolved Lithium	0.0156	0.00500	0.0100		mg/L	1	07/12/17 01:08 PM
Dissolved Molybdenum	0.00479	0.00200	0.00500	J	mg/L	1	07/12/17 01:08 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	07/10/17 02:27 PM
Arsenic	0.00858	0.00200	0.00500		mg/L	1	07/10/17 02:27 PM
Barium	0.0999	0.00300	0.0100		mg/L	1	07/10/17 02:27 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 02:27 PM
Boron	0.830	0.100	0.300		mg/L	10	07/11/17 11:10 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 02:27 PM
Calcium	126	1.00	3.00		mg/L	10	07/11/17 11:10 AM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	07/10/17 02:27 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	07/10/17 02:27 PM
Lead	0.000746	0.000300	0.00100	J	mg/L	1	07/10/17 02:27 PM
Lithium	0.0142	0.00500	0.0100		mg/L	1	07/10/17 02:27 PM
Magnesium	24.5	0.100	0.300		mg/L	1	07/10/17 02:27 PM
Molybdenum	0.00442	0.00200	0.00500	J	mg/L	1	07/10/17 02:27 PM
Potassium	0.849	0.100	0.300		mg/L	1	07/10/17 02:27 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	07/10/17 02:27 PM
Sodium	88.5	1.00	3.00		mg/L	10	07/11/17 11:10 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	07/10/17 02:27 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	07/07/17 11:21 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	334	10.0	20.0		mg/L @ pH 4.53	1	07/05/17 04:20 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	07/05/17 04:20 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	07/05/17 04:20 PM
Alkalinity, Total (As CaCO3)	334	20.0	20.0		mg/L @ pH 4.53	1	07/05/17 04:20 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *12-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-6
Project:	Coleto Creek Power	**Lab ID:**	1706358-03
Project No:	CCR (57084)	**Alternate ID:**	S17179165B
Lab Order:	1706358	**Collection Date:**	06/28/17 11:03 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **RO**
Dissolved Lithium	0.00936	0.00500	0.0100	J	mg/L	1	07/12/17 01:10 PM
Dissolved Molybdenum	0.00828	0.00200	0.00500		mg/L	1	07/12/17 01:10 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	07/10/17 02:29 PM
Arsenic	0.00779	0.00200	0.00500		mg/L	1	07/10/17 02:29 PM
Barium	0.0842	0.00300	0.0100		mg/L	1	07/10/17 02:29 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 02:29 PM
Boron	1.74	0.100	0.300		mg/L	10	07/11/17 11:12 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 02:29 PM
Calcium	81.8	1.00	3.00		mg/L	10	07/11/17 11:12 AM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	07/10/17 02:29 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	07/10/17 02:29 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 02:29 PM
Lithium	0.00903	0.00500	0.0100	J	mg/L	1	07/10/17 02:29 PM
Magnesium	8.79	0.100	0.300		mg/L	1	07/10/17 02:29 PM
Molybdenum	0.00806	0.00200	0.00500		mg/L	1	07/10/17 02:29 PM
Potassium	0.870	0.100	0.300		mg/L	1	07/10/17 02:29 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	07/10/17 02:29 PM
Sodium	68.5	1.00	3.00		mg/L	10	07/11/17 11:12 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	07/10/17 02:29 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	07/07/17 11:24 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	183	10.0	20.0		mg/L @ pH 4.51	1	07/05/17 04:26 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	07/05/17 04:26 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.51	1	07/05/17 04:26 PM
Alkalinity, Total (As CaCO3)	183	20.0	20.0		mg/L @ pH 4.51	1	07/05/17 04:26 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
	C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
	E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
	RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *12-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-7
Project:	Coleto Creek Power	**Lab ID:**	1706358-04
Project No:	CCR (57084)	**Alternate ID:**	S17179165C
Lab Order:	1706358	**Collection Date:**	06/28/17 02:09 PM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **RO**
Dissolved Lithium	0.0116	0.00500	0.0100		mg/L	1	07/12/17 01:12 PM
Dissolved Molybdenum	0.00970	0.00200	0.00500		mg/L	1	07/12/17 01:12 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	07/10/17 02:31 PM
Arsenic	0.00967	0.00200	0.00500		mg/L	1	07/10/17 02:31 PM
Barium	0.0907	0.00300	0.0100		mg/L	1	07/10/17 02:31 PM
Beryllium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 02:31 PM
Boron	0.944	0.100	0.300		mg/L	10	07/11/17 11:15 AM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	07/10/17 02:31 PM
Calcium	75.1	1.00	3.00		mg/L	10	07/11/17 11:15 AM
Chromium	0.00279	0.00200	0.00500	J	mg/L	1	07/10/17 02:31 PM
Cobalt	<0.00300	0.00300	0.00500		mg/L	1	07/10/17 02:31 PM
Lead	0.000502	0.000300	0.00100	J	mg/L	1	07/10/17 02:31 PM
Lithium	0.00969	0.00500	0.0100	J	mg/L	1	07/10/17 02:31 PM
Magnesium	9.65	0.100	0.300		mg/L	1	07/10/17 02:31 PM
Molybdenum	0.00929	0.00200	0.00500		mg/L	1	07/10/17 02:31 PM
Potassium	1.27	0.100	0.300		mg/L	1	07/10/17 02:31 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	07/10/17 02:31 PM
Sodium	108	1.00	3.00		mg/L	10	07/11/17 11:15 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	07/10/17 02:31 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	07/07/17 11:26 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	255	10.0	20.0		mg/L @ pH 4.53	1	07/05/17 04:35 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	07/05/17 04:35 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	07/05/17 04:35 PM
Alkalinity, Total (As CaCO3)	255	20.0	20.0		mg/L @ pH 4.53	1	07/05/17 04:35 PM

Qualifiers:	* Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
	C Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
	E TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
	MDL Method Detection Limit	ND	Not Detected at the Method Detection Limit
	RL Reporting Limit	S	Spike Recovery outside control limits

CLIENT: B-Environmental
Work Order: 1706358
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_170707A

The QC data in batch 81301 applies to the following samples: 1706358-01A, 1706358-02A, 1706358-03A, 1706358-04A

Sample ID	MB-81301	Batch ID:	81301	TestNo:	SW7470A	Units:	mg/L
SampType:	MBLK	Run ID:	CETAC2_HG_170707A	Analysis Date:	7/7/2017 10:38:44 AM	Prep Date:	7/6/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.0000800	0.000200								

Sample ID	LCS-81301	Batch ID:	81301	TestNo:	SW7470A	Units:	mg/L
SampType:	LCS	Run ID:	CETAC2_HG_170707A	Analysis Date:	7/7/2017 10:41:00 AM	Prep Date:	7/6/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00204	0.000200	0.00200	0	102	85	115			

Sample ID	LCSD-81301	Batch ID:	81301	TestNo:	SW7470A	Units:	mg/L
SampType:	LCSD	Run ID:	CETAC2_HG_170707A	Analysis Date:	7/7/2017 10:43:16 AM	Prep Date:	7/6/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00209	0.000200	0.00200	0	104	85	115	2.42	15	

Sample ID	1706358-01A SD	Batch ID:	81301	TestNo:	SW7470A	Units:	mg/L
SampType:	SD	Run ID:	CETAC2_HG_170707A	Analysis Date:	7/7/2017 11:08:10 AM	Prep Date:	7/6/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.000400	0.00100	0	0				0	10	

Sample ID	1706358-01A PDS	Batch ID:	81301	TestNo:	SW7470A	Units:	mg/L
SampType:	PDS	Run ID:	CETAC2_HG_170707A	Analysis Date:	7/7/2017 11:10:27 AM	Prep Date:	7/6/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00133	0.000200	0.00250	0	53.2	85	115			S

Sample ID	1706358-01A MS	Batch ID:	81301	TestNo:	SW7470A	Units:	mg/L
SampType:	MS	Run ID:	CETAC2_HG_170707A	Analysis Date:	7/7/2017 11:12:43 AM	Prep Date:	7/6/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00104	0.000200	0.00200	0	52.0	80	120			S

Sample ID	1706358-01A MSD	Batch ID:	81301	TestNo:	SW7470A	Units:	mg/L
SampType:	MSD	Run ID:	CETAC2_HG_170707A	Analysis Date:	7/7/2017 11:14:59 AM	Prep Date:	7/6/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00108	0.000200	0.00200	0	54.0	80	120	3.77	15	S

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706358
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170710C

The QC data in batch 81264 applies to the following samples: 1706358-01A, 1706358-02A, 1706358-03A, 1706358-04A

Sample ID **MB-81264** Batch ID: **81264** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS4_170710C** Analysis Date: **7/10/2017 1:28:00 PM** Prep Date: **7/5/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.000800	0.00250								
Arsenic	<0.00200	0.00500								
Barium	<0.00300	0.0100								
Beryllium	<0.000300	0.00100								
Cadmium	<0.000300	0.00100								
Calcium	<0.100	0.300								
Chromium	<0.00200	0.00500								
Cobalt	<0.00300	0.00500								
Lead	<0.000300	0.00100								
Lithium	<0.00500	0.0100								
Magnesium	<0.100	0.300								
Molybdenum	<0.00200	0.00500								
Potassium	<0.100	0.300								
Selenium	<0.00200	0.00500								
Thallium	<0.000500	0.00150								

Sample ID **LCS-81264** Batch ID: **81264** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS4_170710C** Analysis Date: **7/10/2017 1:30:00 PM** Prep Date: **7/5/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.195	0.00250	0.200	0	97.3	80	120			
Arsenic	0.200	0.00500	0.200	0	100	80	120			
Barium	0.196	0.0100	0.200	0	98.1	80	120			
Beryllium	0.211	0.00100	0.200	0	105	80	120			
Cadmium	0.196	0.00100	0.200	0	98.1	80	120			
Calcium	5.16	0.300	5.00	0	103	80	120			
Chromium	0.205	0.00500	0.200	0	103	80	120			
Cobalt	0.206	0.00500	0.200	0	103	80	120			
Lead	0.198	0.00100	0.200	0	99.2	80	120			
Lithium	0.212	0.0100	0.200	0	106	80	120			
Magnesium	5.10	0.300	5.00	0	102	80	120			
Molybdenum	0.192	0.00500	0.200	0	96.2	80	120			
Potassium	5.13	0.300	5.00	0	103	80	120			
Selenium	0.202	0.00500	0.200	0	101	80	120			
Thallium	0.204	0.00150	0.200	0	102	80	120			

Sample ID **LCSD-81264** Batch ID: **81264** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS4_170710C** Analysis Date: **7/10/2017 1:32:00 PM** Prep Date: **7/5/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Mcthod Detcction Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706358
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170710C

Sample ID	LCSD-81264	Batch ID:	81264	TestNo:	SW6020A	Units:	mg/L
SampType:	LCSD	Run ID:	ICP-MS4_170710C	Analysis Date:	7/10/2017 1:32:00 PM	Prep Date:	7/5/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.196	0.00250	0.200	0	98.1	80	120	0.837	15	
Arsenic	0.200	0.00500	0.200	0	99.8	80	120	0.212	15	
Barium	0.199	0.0100	0.200	0	99.3	80	120	1.26	15	
Beryllium	0.210	0.00100	0.200	0	105	80	120	0.537	15	
Cadmium	0.198	0.00100	0.200	0	98.9	80	120	0.790	15	
Calcium	5.13	0.300	5.00	0	103	80	120	0.609	15	
Chromium	0.207	0.00500	0.200	0	103	80	120	0.660	15	
Cobalt	0.207	0.00500	0.200	0	103	80	120	0.333	15	
Lead	0.197	0.00100	0.200	0	98.6	80	120	0.615	15	
Lithium	0.210	0.0100	0.200	0	105	80	120	0.969	15	
Magnesium	5.06	0.300	5.00	0	101	80	120	0.907	15	
Molybdenum	0.195	0.00500	0.200	0	97.3	80	120	1.20	15	
Potassium	5.11	0.300	5.00	0	102	80	120	0.406	15	
Selenium	0.202	0.00500	0.200	0	101	80	120	0.195	15	
Thallium	0.202	0.00150	0.200	0	101	80	120	1.16	15	

Sample ID	1706358-01A SD	Batch ID:	81264	TestNo:	SW6020A	Units:	mg/L
SampType:	SD	Run ID:	ICP-MS4_170710C	Analysis Date:	7/10/2017 2:15:00 PM	Prep Date:	7/5/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.00400	0.0125	0	0				0	10	
Arsenic	0.0131	0.0250	0	0.0129				1.30	10	
Barium	0.0481	0.0500	0	0.0476				0.953	10	
Beryllium	<0.00150	0.00500	0	0				0	10	
Cadmium	<0.00150	0.00500	0	0				0	10	
Chromium	<0.0100	0.0250	0	0.00415				0	10	
Cobalt	0.217	0.0250	0	0.213				1.76	10	
Lead	0.00549	0.00500	0	0.00562				2.43	10	
Lithium	<0.0250	0.0500	0	0.0112				0	10	
Magnesium	7.08	1.50	0	7.03				0.676	10	
Molybdenum	<0.0100	0.0250	0	0.00797				0	10	
Potassium	0.738	1.50	0	0.744				0.931	10	
Selenium	<0.0100	0.0250	0	0				0	10	
Thallium	<0.00250	0.00750	0	0				0	10	

Sample ID	1706358-01A PDS	Batch ID:	81264	TestNo:	SW6020A	Units:	mg/L
SampType:	PDS	Run ID:	ICP-MS4_170710C	Analysis Date:	7/10/2017 2:33:00 PM	Prep Date:	7/5/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.196	0.00250	0.200	0	98.2	80	120			
Arsenic	0.212	0.00500	0.200	0.0129	99.6	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706358
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170710C

Sample ID **1706358-01A PDS**	Batch ID: **81264**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **PDS**	Run ID: **ICP-MS4_170710C**	Analysis Date: **7/10/2017 2:33:00 PM**	Prep Date: **7/5/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.247	0.0100	0.200	0.0476	99.8	80	120			
Beryllium	0.191	0.00100	0.200	0	95.5	80	120			
Cadmium	0.191	0.00100	0.200	0	95.4	80	120			
Chromium	0.208	0.00500	0.200	0.00415	102	80	120			
Cobalt	0.414	0.00500	0.200	0.213	100	80	120			
Lead	0.203	0.00100	0.200	0.00562	98.5	80	120			
Lithium	0.200	0.0100	0.200	0.0111	94.3	80	120			
Magnesium	11.3	0.300	5.00	7.03	84.5	80	120			
Molybdenum	0.198	0.00500	0.200	0.00797	95.1	80	120			
Potassium	5.64	0.300	5.00	0.744	97.9	80	120			
Selenium	0.197	0.00500	0.200	0	98.7	80	120			
Thallium	0.201	0.00150	0.200	0	100	80	120			

Sample ID **1706358-01A MS**	Batch ID: **81264**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **MS**	Run ID: **ICP-MS4_170710C**	Analysis Date: **7/10/2017 2:35:00 PM**	Prep Date: **7/5/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.192	0.00250	0.200	0	96.2	80	120			
Arsenic	0.213	0.00500	0.200	0.0129	100	80	120			
Barium	0.244	0.0100	0.200	0.0476	98.4	80	120			
Beryllium	0.188	0.00100	0.200	0	93.8	80	120			
Cadmium	0.187	0.00100	0.200	0	93.5	80	120			
Calcium	48.5	0.300	5.00	43.8	93.8	80	120			
Chromium	0.202	0.00500	0.200	0.00415	98.8	80	120			
Cobalt	0.422	0.00500	0.200	0.213	105	80	120			
Lead	0.201	0.00100	0.200	0.00562	97.8	80	120			
Lithium	0.200	0.0100	0.200	0.0111	94.5	80	120			
Magnesium	11.9	0.300	5.00	7.03	96.9	80	120			
Molybdenum	0.198	0.00500	0.200	0.00797	95.0	80	120			
Potassium	5.82	0.300	5.00	0.744	101	80	120			
Selenium	0.199	0.00500	0.200	0	99.7	80	120			
Thallium	0.199	0.00150	0.200	0	99.6	80	120			

Sample ID **1706358-01A MSD**	Batch ID: **81264**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **MSD**	Run ID: **ICP-MS4_170710C**	Analysis Date: **7/10/2017 2:36:00 PM**	Prep Date: **7/5/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.194	0.00250	0.200	0	96.9	80	120	0.760	15	
Arsenic	0.213	0.00500	0.200	0.0129	99.8	80	120	0.184	15	
Barium	0.246	0.0100	0.200	0.0476	99.1	80	120	0.616	15	
Beryllium	0.190	0.00100	0.200	0	95.0	80	120	1.23	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706358
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170710C

Sample ID	1706358-01A MSD	Batch ID:	81264	TestNo:	SW6020A	Units:	mg/L
SampType:	MSD	Run ID:	ICP-MS4_170710C	Analysis Date:	7/10/2017 2:36:00 PM	Prep Date:	7/5/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.187	0.00100	0.200	0	93.4	80	120	0.142	15	
Calcium	49.1	0.300	5.00	43.8	107	80	120	1.32	15	
Chromium	0.203	0.00500	0.200	0.00415	99.3	80	120	0.514	15	
Cobalt	0.426	0.00500	0.200	0.213	107	80	120	0.953	15	
Lead	0.203	0.00100	0.200	0.00562	98.8	80	120	0.972	15	
Lithium	0.201	0.0100	0.200	0.0111	95.1	80	120	0.596	15	
Magnesium	12.0	0.300	5.00	7.03	99.4	80	120	1.06	15	
Molybdenum	0.200	0.00500	0.200	0.00797	96.1	80	120	1.07	15	
Potassium	5.85	0.300	5.00	0.744	102	80	120	0.597	15	
Selenium	0.201	0.00500	0.200	0	100	80	120	0.584	15	
Thallium	0.202	0.00150	0.200	0	101	80	120	1.52	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706358
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170711A

The QC data in batch 81264 applies to the following samples: 1706358-01A, 1706358-02A, 1706358-03A, 1706358-04A

Sample ID	MB-81264	Batch ID:	81264	TestNo:	SW6020A	Units:	mg/L
SampType:	MBLK	Run ID:	ICP-MS4_170711A	Analysis Date:	7/11/2017 10:48:00 AM	Prep Date:	7/5/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	<0.0100	0.0300								
Sodium	<0.100	0.300								

Sample ID	LCS-81264	Batch ID:	81264	TestNo:	SW6020A	Units:	mg/L
SampType:	LCS	Run ID:	ICP-MS4_170711A	Analysis Date:	7/11/2017 10:50:00 AM	Prep Date:	7/5/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.207	0.0300	0.200	0	103	80	120			
Sodium	5.18	0.300	5.00	0	104	80	120			

Sample ID	LCSD-81264	Batch ID:	81264	TestNo:	SW6020A	Units:	mg/L
SampType:	LCSD	Run ID:	ICP-MS4_170711A	Analysis Date:	7/11/2017 10:52:00 AM	Prep Date:	7/5/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.206	0.0300	0.200	0	103	80	120	0.318	15	
Sodium	5.11	0.300	5.00	0	102	80	120	1.39	15	

Sample ID	1706358-01A SD	Batch ID:	81264	TestNo:	SW6020A	Units:	mg/L
SampType:	SD	Run ID:	ICP-MS4_170711A	Analysis Date:	7/11/2017 10:58:00 AM	Prep Date:	7/5/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	1.32	1.50	0	1.14				14.0	10	R
Calcium	44.6	15.0	0	44.0				1.39	10	
Sodium	169	15.0	0	165				2.34	10	

Sample ID	1706358-01A PDS	Batch ID:	81264	TestNo:	SW6020A	Units:	mg/L
SampType:	PDS	Run ID:	ICP-MS4_170711A	Analysis Date:	7/11/2017 11:17:00 AM	Prep Date:	7/5/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	3.11	0.300	2.00	1.14	98.4	80	120			
Calcium	93.6	3.00	50.0	44.0	99.3	80	120			
Sodium	218	3.00	50.0	165	106	80	120			

Sample ID	1706358-01A MS	Batch ID:	81264	TestNo:	SW6020A	Units:	mg/L
SampType:	MS	Run ID:	ICP-MS4_170711A	Analysis Date:	7/11/2017 11:18:00 AM	Prep Date:	7/5/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	1.38	0.300	0.200	1.14	120	80	120			
Sodium	172	3.00	5.00	165	139	80	120			S

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706358
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170711A

Sample ID	1706358-01A MSD	Batch ID:	81264	TestNo:	SW6020A	Units:	mg/L
SampType:	MSD	Run ID:	ICP-MS4_170711A	Analysis Date:	7/11/2017 11:21:00 AM	Prep Date:	7/5/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	1.34	0.300	0.200	1.14	97.3	80	120	3.36	15	
Sodium	172	3.00	5.00	165	143	80	120	0.092	15	S

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706358
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170712A

The QC data in batch 81349 applies to the following samples: 1706358-01B, 1706358-02B, 1706358-03B, 1706358-04B

Sample ID	MB-81349	Batch ID:	81349	TestNo:	SW6020A	Units:	mg/L
SampType:	MBLK	Run ID:	ICP-MS5_170712A	Analysis Date:	7/12/2017 12:58:00 PM	Prep Date:	7/11/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.00500	0.0100								
Molybdenum	<0.00200	0.00500								

Sample ID	LCS-81349	Batch ID:	81349	TestNo:	SW6020A	Units:	mg/L
SampType:	LCS	Run ID:	ICP-MS5_170712A	Analysis Date:	7/12/2017 12:59:00 PM	Prep Date:	7/11/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.219	0.0100	0.200	0	109	80	120			
Molybdenum	0.200	0.00500	0.200	0	100	80	120			

Sample ID	LCSD-81349	Batch ID:	81349	TestNo:	SW6020A	Units:	mg/L
SampType:	LCSD	Run ID:	ICP-MS5_170712A	Analysis Date:	7/12/2017 1:01:00 PM	Prep Date:	7/11/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.219	0.0100	0.200	0	109	80	120	0.037	15	
Molybdenum	0.196	0.00500	0.200	0	98.0	80	120	2.00	15	

Sample ID	1706358-01B SD	Batch ID:	81349	TestNo:	SW6020A	Units:	mg/L
SampType:	SD	Run ID:	ICP-MS5_170712A	Analysis Date:	7/12/2017 1:06:00 PM	Prep Date:	7/11/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<0.0250	0.0500	0	0.0117				0	10	
Molybdenum	0.00858	0.0250	0	0.00945				9.66	10	

Sample ID	1706358-01B PDS	Batch ID:	81349	TestNo:	SW6020A	Units:	mg/L
SampType:	PDS	Run ID:	ICP-MS5_170712A	Analysis Date:	7/12/2017 1:14:00 PM	Prep Date:	7/11/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.222	0.0100	0.200	0.0117	105	80	120			
Molybdenum	0.204	0.00500	0.200	0.00945	97.5	80	120			

Sample ID	1706358-01B MS	Batch ID:	81349	TestNo:	SW6020A	Units:	mg/L
SampType:	MS	Run ID:	ICP-MS5_170712A	Analysis Date:	7/12/2017 1:15:00 PM	Prep Date:	7/11/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Lithium	0.221	0.0100	0.200	0.0117	105	80	120			
Dissolved Molybdenum	0.207	0.00500	0.200	0.00945	98.6	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706358
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170712A

Sample ID **1706358-01B MSD** Batch ID: **81349** TestNo: **SW6020A** Units: **mg/L**
SampType: **MSD** Run ID: **ICP-MS5_170712A** Analysis Date: **7/12/2017 1:17:00 PM** Prep Date: **7/11/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Lithium	0.223	0.0100	0.200	0.0117	106	80	120	0.791	15	
Dissolved Molybdenum	0.211	0.00500	0.200	0.00945	101	80	120	2.10	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1706358
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_170705B

The QC data in batch 81266 applies to the following samples: 1706358-01C, 1706358-02C, 1706358-03C, 1706358-04C

Sample ID **MB-81266**	Batch ID: **81266**	TestNo: **M2320 B**	Units: **mg/L @ pH 4.15**
SampType: **MBLK**	Run ID: **TITRATOR_170705B**	Analysis Date: **7/5/2017 11:42:00 AM**	Prep Date: **7/5/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0								
Alkalinity, Total (As CaCO3)	<20.0	20.0								

Sample ID **LCS-81266**	Batch ID: **81266**	TestNo: **M2320 B**	Units: **mg/L @ pH 4.05**
SampType: **LCS**	Run ID: **TITRATOR_170705B**	Analysis Date: **7/5/2017 11:46:00 AM**	Prep Date: **7/5/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	51.8	20.0	50.00	0	104	74	129			

Sample ID **1706328-01D-DUP**	Batch ID: **81266**	TestNo: **M2320 B**	Units: **mg/L @ pH 4.53**
SampType: **DUP**	Run ID: **TITRATOR_170705B**	Analysis Date: **7/5/2017 12:22:00 PM**	Prep Date: **7/5/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	389	20.0	0	391.6				0.683	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	389	20.0	0	391.6				0.683	20	

Sample ID **1706358-01C-DUP**	Batch ID: **81266**	TestNo: **M2320 B**	Units: **mg/L @ pH 4.51**
SampType: **DUP**	Run ID: **TITRATOR_170705B**	Analysis Date: **7/5/2017 4:08:00 PM**	Prep Date: **7/5/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	286	20.0	0	291.8				2.01	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	286	20.0	0	291.8				2.01	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

2609 North River Road, Port Allen, Louisiana 70767
(800) 401-4277 -- FAX (225) 381-2996

ARS International, LLC

Laboratory Analysis Report

ARS1-17-01931

Prepared for:

B-Environmental

Kevin Baros
1606 East Brazos Street
Suite D
Victoria, TX 77901

dbenviro@suddenlinkmail.com; cbenviro@suddenlinkmail.com
swbenviro@suddenlinkmail.com

Phone: 361-572-8224
Fax: 361-572-4115

Project Manager Review

Management Review

Notes: ARS International, LLC assumes no liability for the use or the interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

Contact Person: Questions regarding this analytical report should be addressed to:

Project Manager
ProjectManagers@amrad.com

Phone: 225.381.2991
Fax: 225.381.2996

LELAP Cert# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01931
Client Sample ID: S171791654 (Batch 57084)
Sample Collection Date: 06/28/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01931-001
Date Received: 07/03/17
Report Date: 08/01/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.125	0.131	0.206	0.085	NP	U,Q	pCi/L	ARS-010/EPA 903.0/904.0	07/24/17 8:46	CTRAMEL	106%
Ra-228	0.710	0.745	1.220	0.568	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/17/17 12:39	CTRAMEL	114%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01931
Client Sample ID: S17179165A (Batch 57084)
Sample Collection Date: 06/28/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01931-002
Date Received: 07/03/17
Report Date: 08/01/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.521	0.207	0.187	0.074	NP	Q	pCi/L	ARS-010/EPA 903.0/904.0	07/24/17 8:46	CTRAMEL	101%
Ra-228	0.593	0.707	1.173	0.545	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/17/17 12:39	CTRAMEL	96%

Project Manager Review

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01931
Client Sample ID: S17179165B (Batch 57084)
Sample Collection Date: 06/28/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01931-003
Date Received: 07/03/17
Report Date: 08/01/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.350	0.161	0.152	0.058	NP	Q	pCi/L	ARS-010/EPA 903.0/904.0	07/24/17 8:46	CTRAMEL	100%
Ra-228	1.380	0.752	1.089	0.504	NP		pCi/L	ARS-010/EPA 903.0/904.0	07/17/17 12:39	CTRAMEL	95%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-01931
Client Sample ID: S17179165C (Batch 57084)
Sample Collection Date: 06/28/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-01931-004
Date Received: 07/03/17
Report Date: 08/01/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.137	0.113	0.159	0.061	NP	U,Q	pCi/L	ARS-010/EPA 903.0/904.0	07/24/17 8:46	CTRAMEL	97%
Ra-228	0.084	0.688	1.230	0.571	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/17/17 12:39	CTRAMEL	93%

Project Manager Review

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

INTERNATIONAL

QC Results Report

Sample Delivery Group: ARS1-17-01931

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-01419	LCS	RA-226	29.330	4.720	0.102	27.528	N/A	pCi/L	ARS-010/EPA 903	7/24/17 10:46	CT	107	75%-125%
ARS1-B17-01419	LCS	RA-228	35.419	5.916	1.083	39.784	N/A	pCi/L	ARS-010/EPA 904	7/17/17 14:38	CT	89	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-01419	MBL	RA-226	0.111	0.075	0.099	NA		pCi/L	ARS-010/EPA 903	7/24/17 10:46	CT
ARS1-B17-01419	MBL	RA-228	0.145	0.345	0.597	NA	U	pCi/L	ARS-010/EPA 904	7/17/17 14:38	CT

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-01419	LCSD	RA-226	29.330	4.720	19.481	3.168	N/A	pCi/L	ARS-010/EPA 903	7/24/17 10:46	CT	1.25	< 1
ARS1-B17-01419	LCSD	RA-228	35.419	5.916	31.804	5.332	N/A	pCi/L	ARS-010/EPA 904	7/17/17 14:38	CT	0.32	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-01419	LCSD	RA-226	29.330	4.720	19.481	3.168	N/A	pCi/L	ARS-010/EPA 903	7/24/17 10:46	CT	1.73	< 3
ARS1-B17-01419	LCSD	RA-228	35.419	5.916	31.804	5.332	N/A	pCi/L	ARS-010/EPA 904	7/17/17 14:38	CT	0.45	< 3

Matrix Spike

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery(%)	MS Acceptance Range
ARS1-B17-01419	MS	Ra-226	49.264	7.948	0.148	55.525	N/A	pCi/L	ARS-010/EPA 903	7/24/17 10:46	CT	89	60%-140%
ARS1-B17-01419	MS	RA-228	46.444	7.735	1.387	49.175	N/A	pCi/L	ARS-010/EPA 904	7/17/17 14:38	CT	94	60%-140%
ARS1-B17-01419	MSD	RA-226	54.867	8.829	0.206	55.525	N/A	pCi/L	ARS-010/EPA 903	7/24/17 10:46	CT	99	60%-140%
ARS1-B17-01419	MSD	Ra-228	46.397	7.781	1.621	51.774	N/A	pCi/L	ARS-010/EPA 904	7/17/17 14:38	CT	90	60%-140%

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

2609 North River Road • Port Allen, Louisiana 70767
1 (800) 401-4277 • Fax (225) 381-2996

Notes (Case Narrative):

Comments:

1.0) All MDA/MDC values are calculated on a sample specific basis.
2.0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.
3.0) Data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.
4.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix. Modified analyses are indicated by the subsequent addition of "m" to the procedure number (i.e. 900.0M).
5.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than the actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
6.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228 (Gamma Spectroscopy only).
7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234 (Gamma Spectroscopy only).
8.0) All gamma spectroscopy was performed utilizing high purity germanium detectors (**HPGe**).
9.0) ARS makes every attempt to match sample density to calibrated density; however, in some cases, it is not practical or possible to do so and data results may be affected (Gamma Spectroscopy only).
10.0) Gamma spectroscopy results are calculated values based on the **ORTEC®** GammaVision ENV32 Analysis Engine.
11.0) ACLASS DOD and ISO 17025 certification applies only to the following analytes and methods: Gross Alpha and Gross Beta (EPA 900, SM7110B&C, SW846 9310); Radium 226 (EPA 903, EPA 903.1, SM 7500 Ra-B, SW846 9315); Radium 228 (EPA 904, SM 7500 Ra-B SW846 9320); Iodine-131(EPA 901.1); Uranium by ICPMS (EPA 200.8); Strontium 89/90 (EPA 905, Eichrom SRW01, HASL 300 Sr-03-RC); Tritium (EPA 906, EPA 906M); Gamma Emitters (EPA 901.1, SM7120B, HASL 300 Ga-01-R); Americium-241, Curium 242/244, Plutonium 239/240 and 241, Thorium 228/230/232, Uranium 234/233 and 238 (Eichrom ACW03 VBS); Lead 210 (HASL 300 Pb-01-RC, Eichrom OTW01); Polonium 210 (HASL 300 Po-01-RC, HASL 300 Po-02-RC); Technetium-99 (Eichrom TCW02, Eichrom TCS01M).

Method References:

1.0) **EPA 600/4-80-032**; Prescribed Procedures for the Measurements of Radioactivity in Drinking Water, August 1980.
2.0) **Standard Methods for the Examination of Water and Wastewater** (On-Line Edition)
3.0) **EPA SW-846**; Test Methods for Evaluating Solid Waste, (On-Line edition)
4.0) **EPA 600/4/79-020**; Methods for Chemical Analysis of Water and Waste, March 1983.
5.0) **HASL 300**; The Procedures Manual of the Environmental Measurements Laboratory, Volume I, 28th Edition February, 1997.

Definitions:

CRDL	Contract Required Detection Limit
CSU	Combined Standard Uncertainty
DLC	Decision Level Concentration (ANSI N42.23) or critical level
DO	Duplicate Original
DUP	Method Duplicate
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
MDA	Minimum Detectable Activity
MDC	(Minimum Detectable Concentration) minimum concentration of the analyte that ARS can detect utilizing the specific analysis
MBL	Method Blank
MS/MSD	Matrix Spike/Matrix Spike Duplicate
N/A	Not Applicable
NP	Not Provided
NR	Not Referenced
LOD	Limit of Detection
LOQ	Limit of Quantitation

Data Qualifiers:

B	The analyte is found in both the associated method blank and the sample. This flag indicates probable blank contamination.
D	Sample analysis accomplished through dilution.
J	The reported result is an estimated value above the limit of detection but outside of quantitation range (e.g., matrix interference was observed).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).
U	Activity is below the MDC, MDA, MDL, or LOD
N	The analyte is a tentatively identified compound using mass spectrometry or any non-customer requested compounds that are tentatively identified.
*	LCS/LCSD or MS/MSD fails RPD criteria.
S	Spike
SC	Subcontracted out to another qualified laboratory
H	Holding time exceeded

B Environmental Laboratory, LLC

1606 E Brazos Suite D Victoria, Texas 77901 ph. (361) 572-8224

Chain Of Custody Record

Batch #57084 | TEMP UN-C: 8.7 | Page ___ of ___

THERM ID# 3 | TEMP Corr: 8.5

Customer / Report Information | **Billing Information** | X Check box if Billing is the same as Report Information

Name: Coleto Creek Power	Address:	Phone: 361-788-5145	FAX:
Attention: Rick Coleman	Attention: PO #	EMAIL: richard.coleman@dynegy.com	
Address: P.O. Box 8; Fannin, TX 77960	Project: CCR Sampling Comments:	Requested Analysis	Completed By laboratory

Sample Information				Matrix	Container			Preservative													Custody Seals Present / Intact / LAB Sample Number
Collected By:											B	C	C	A	E	D	F				
Client / Field Sample ID	Collected Date	Collected Time	G = Grab C = Composite	DW - Drinking H20 S - Solid WW - Waste H20 SL - Sludge L - Liquid w - Water	TYPE	NUMBER	Size	Preservative			Metals*	Cl, F*, SO4	pH	TDS	Ra226 & Ra228	Alk.Tot, Carb,BiCarb	Diss Li & Mo				
BV-10	6-28-17	842	G	WW	P	6	1L / 500mL / 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ _____	☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3		X	X	X	X	X	X	X				S171791654
BV-19		1019	G	WW	P	6	1L / 500mL / 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ _____	☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3		X	X	X	X	X	X	X				S17179165A
mw-6		1103	G	WW	P	6	1L / 500mL / 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ _____	☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3		X	X	X	X	X	X	X				S17179165B
mw-7		1409	G	WW	P	6	1L / 500mL / 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ _____	☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3		X	X	X	X	X	X	X				S17179165C
BV-10-MS	6-28-17	842	G	WW	P	6	1L / 500mL / 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ _____	☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3		X	X	X	X	X	X	X				
BV-10-MSD	6-28-17	842	G	WW	P	6	1L / 500mL / 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ _____	☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3		X	X	X	X	X	X	X				
			G	WW	P	6	1L / 500mL / 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ _____	☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3		X	X	X	X	X	X	X				

Required Turnaround: ☒ Routine (6-10 Business days) | **Expedite / Rush:** ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business days ☐ 5 Business days ☐ Other _____ REMARKS:

Surcharge will apply to RUSH TAT Authorized BY: | **Container Type: P=Plastic, G=Glass, V=Voa, O=Other** | **Carrier ID :**

Relinquished By:	Date: 6-28-17	Time: 1620	Received By:	Date: 6-28-17	Time: 16:20		
Relinquished By:	Date:	Time:	Received By:	Date:	Time:		
Relinquished By	Date:	Time:	Received By:	Date:	Time:		

FLuoride: MAL 0.25 mg/L Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Mg,K,Na, & Hg

Batch # 57535

BatchNo: 57535

SAMPLE REPORT

T104704328-17-14

Business

Coleto Creek Power - R Coleman
PO Box 8
Fannin TX 77960
Att: Rick Coleman

Laboratory

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901
ph. 361-572-8224

Reference Information

Project: CCR Sampling

Printed: Thursday, August 17, 2017

Re: Coleto Creek Power - R Coleman

Dear: Rick Coleman

Attached are the results for sample(s) received on 7/10/2017

The analytical results relate only to the samples tested.
All supporting quality data meets the requirements of NELAC unless noted in the case narrative section of the report.

This report contains 39 pages (including the cover page)

If you have any questions concerning this report, please do not hesitate to call (361) 572-8224 or Fax us at (361) 572-4115

Respectfully Submitted,

Kevin Baros

Laboratory Director

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57535

Batch No: 57535

Sample Receipt Checklist

Date Received: 8/17/2017

Project	CCR Sampling	Received By:	Vahrenkamp
Login completed by:	Vahrenkamp	8/17/2017	
	Signature	LoginDate:	

Carrier Name: Walk In

Shipping container/cooler in good condition?	☑ YES	☐ NO	☐ Not Present
Custody seals intact on shipping container/cooler?	☐ YES	☐ NO	☑ Not Present
Custody seals intact on sample bottles?	☐ YES	☐ NO	☑ Not Present
Chain of Custody present?	☑ YES	☐ NO	
Chain of Custody signed when relinquished and received	☑ YES	☐ NO	
Chain of Custody agrees with sample labels?	☑ YES	☐ NO	
Samples in proper container/bottles?	☑ YES	☐ NO	
Sample containers intact?	☑ YES	☐ NO	
Sufficient sample volume for indicated tests?	☑ YES	☐ NO	
All samples received within holding times?	☑ YES	☐ NO	
Container/Temp Blank - temperature in compliance?	☑ YES	☐ NO	>0 <6 °C On Ice
Water - VOA vials have zero headspace? Bubble < 6mm?	☐ YES	☐ NO	☑ No VOA Vials submitted
Water - pH acceptable upon receipt?	☑ YES	☐ NO	☐ Not Applicable

*TEMP 11.1/10.9 | pH Adjusted? No | Checked By L. Vahrenkamp

Any No and/or N/A (not applicable) response must be detailed in the comments section below.

Client contacted		PersonContacted	
Contacted by:		Date Contacted:	

Regarding

Comments

Therm #3. HNO3 Lot # 2-42-12. pH Paper Lot # 2-25-6. The samples were received the same day they were collected and were in the process of cooling.

Corrective Action

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57535

Sample Report Information

Sample ID:	S171911556	Client ID:	Blank	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: Blank
Notes:

Batch No: 57535
Sampled: 7/10/2017 2:00 PM

Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed		LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	< 1	mg/L	EPA 300	K Baros	7/12/2017	5:52	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	< 20	mg/L	SM 2320 B		7/13/2017		10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/13/2017		10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	< 20	mg/L	SM 2320 B		7/13/2017		10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	< 0.25	mg/L	EPA 300	K Baros	7/12/2017	5:52	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	5.62	SU	SM 4500-H+B	P Ryan	7/10/2017	16:05					☐	
Solids, Total Dissolved	< 25	mg/L	SM2540C	C Watts	7/13/2017	14:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/14/2017	14:31					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	< 1	mg/L	EPA 300	K Baros	7/12/2017	5:52	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/7/2017	8:05					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57535

Sample Report Information

Sample ID:	S17191155B	Client ID:	MW-4	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #4
Notes:

Batch No: 57535
Sampled: 7/10/2017 11:26 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	101	mg/L	EPA 300	K Baros	7/12/2017 0:47	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	243	mg/L	SM 2320 B		7/13/2017 11:12	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/13/2017 11:12	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	243	mg/L	SM 2320 B		7/13/2017 11:12	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.62	mg/L	EPA 300	K Baros	7/12/2017 0:47	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.17	SU	SM 4500-H+B	P Ryan	7/10/2017 16:05					☐	
Solids, Total Dissolved	670	mg/L	SM2540C	C Watts	7/13/2017 14:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/14/2017 14:58					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	158	mg/L	EPA 300	K Baros	7/12/2017 0:47	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/7/2017 8:05					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57535

Sample Report Information

Sample ID:	S17191155C	Client ID:	MW-8	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #8
Notes:

Batch No: 57535
Sampled: 7/10/2017 9:04 AM

Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	63	mg/L	EPA 300	K Baros	7/12/2017 1:25	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	255	mg/L	SM 2320 B		7/13/2017 11:20	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/13/2017 11:20	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	255	mg/L	SM 2320 B		7/13/2017 11:20	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.44	mg/L	EPA 300	K Baros	7/12/2017 1:25	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.05	SU	SM 4500-H+B	P Ryan	7/10/2017 16:05					☐	
Solids, Total Dissolved	533	mg/L	SM2540C	C Watts	7/13/2017 14:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/14/2017 15:14					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	97	mg/L	EPA 300	K Baros	7/12/2017 1:25	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/7/2017 8:05					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57535

Sample Report Information

Sample ID:	S17191155D	Client ID:	BV-15	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV 15
Notes:

Batch No: 57535
Sampled: 7/10/2017 11:04 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	46	mg/L	EPA 300	K Baros	7/12/2017 2:03	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	202	mg/L	SM 2320 B		7/13/2017 11:26	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/13/2017 11:26	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	202	mg/L	SM 2320 B		7/13/2017 11:26	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.79	mg/L	EPA 300	K Baros	7/12/2017 2:03	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.27	SU	SM 4500-H+B	P Ryan	7/10/2017 16:05					☐	
Solids, Total Dissolved	423	mg/L	SM2540C	C Watts	7/13/2017 14:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/14/2017 15:16					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	79	mg/L	EPA 300	K Baros	7/12/2017 2:03	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/7/2017 8:05					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57535

Sample Report Information

Sample ID:	S17191155E	Client ID:	BV-21	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV 21
Notes:

Batch No: 57535
Sampled: 7/10/2017 10:34 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	39	mg/L	EPA 300	K Baros	7/12/2017 2:42	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	240	mg/L	SM 2320 B		7/13/2017	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/13/2017	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	240	mg/L	SM 2320 B		7/13/2017	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.58	mg/L	EPA 300	K Baros	7/12/2017 2:42	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.11	SU	SM 4500-H+B	P Ryan	7/10/2017 16:05					☐	
Solids, Total Dissolved	427	mg/L	SM2540C	C Watts	7/13/2017 14:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/14/2017 15:18					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	45	mg/L	EPA 300	K Baros	7/12/2017 2:42	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/7/2017 8:05					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57535

Sample Report Information

Sample ID:	S17191155F	Client ID:	BV-22	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV 22
Notes:

Batch No: 57535
Sampled: 7/10/2017 9:47 AM

Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	39	mg/L	EPA 300	K Baros	7/12/2017 3:20	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	244	mg/L	SM 2320 B		7/13/2017 11:42	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/13/2017 11:42	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	244	mg/L	SM 2320 B		7/13/2017 11:42	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.52	mg/L	EPA 300	K Baros	7/12/2017 3:20	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.15	SU	SM 4500-H+B	P Ryan	7/10/2017 16:05					☐	
Solids, Total Dissolved	377	mg/L	SM2540C	C Watts	7/13/2017 14:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/14/2017 15:10					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	28	mg/L	EPA 300	K Baros	7/12/2017 3:20	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/7/2017 8:05					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57535

Sample Report Information

Sample ID:	S17191155G	Client ID:	Dup 1	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: Dup
Notes:

Batch No: 57535
Sampled: 7/10/2017 12:00 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	63	mg/L	EPA 300	K Baros	7/12/2017 5:14	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	256	mg/L	SM 2320 B		7/13/2017 11:58	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/13/2017 11:58	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	256	mg/L	SM 2320 B		7/13/2017 11:58	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.44	mg/L	EPA 300	K Baros	7/12/2017 5:14	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.08	SU	SM 4500-H+B	P Ryan	7/10/2017 16:05					☐	
Solids, Total Dissolved	533	mg/L	SM2540C	C Watts	7/13/2017 14:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/14/2017 15:20					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	96	mg/L	EPA 300	K Baros	7/12/2017 5:14	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/7/2017 8:05					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57535

QA Summary Report

Parameter	ID	Result	Ref Value	Amt Added	LOQ	Qualifer	Control	Flag	Comments
Method Blank									
.- Chloride, IC	Q172012011	<1mg/L	0		1		1		Blank Acceptable.
7/11/2017 15:54									
Fluoride, IC	Q172012011	<0.25mg/L	0		0.25		0.25		Blank Acceptable.
7/11/2017 15:54									
Solids, Total Dissolved	Q172001441	<25mg/L	0		10		25		Blank Acceptable.
7/13/2017 14:00									
Sulfate, IC	Q172012011	<1mg/L	0		1		1		Blank Acceptable.
7/11/2017 15:54									
Duplicate									
pH (Standard Units)	Q171911641	7.12SU	7.15		2	0.4%	20		Duplicate RPD Acceptable.
7/10/2017 16:05									
Solids, Total Dissolved	Q17200144B	377mg/L	377		10	0.0%	20		Duplicate RPD Acceptable.
7/13/2017 14:00									
Laboratory Control Standard									
.- Chloride, IC	Q172012012	24.7mg/L	25		1	98.8%	80 - 120		Standard Recovery Acceptable.
7/11/2017 16:32						1.2%	20		Standard RPD Acceptable.
Fluoride, IC	Q172012012	1.81mg/L	2		0.25	90.5%	80 - 120		Standard Recovery Acceptable.
7/11/2017 16:32						10.0%	20		Standard RPD Acceptable.
pH (Standard Units)	Q171911640	7.02SU	7		2	100.3%	80 - 120		Standard Recovery Acceptable.
7/10/2017 16:05						0.3%	20		Standard RPD Acceptable.
Sulfate, IC	Q172012012	25mg/L	25		1	100.0%	80 - 120		Standard Recovery Acceptable.
7/11/2017 16:32						0.0%	20		Standard RPD Acceptable.
Matrix Spike									
.- Chloride, IC	Q17201201C	60.8mg/L	60	25	1	103.2%	80 - 120		Spike Recovery Acceptable.
7/12/2017 3:58						1.3%	20		Spike RPD Acceptable.
Fluoride, IC	Q17201201C	2.29mg/L	2.46	2	0.25	91.5%	80 - 120		Spike Recovery Acceptable.
7/12/2017 3:58						7.2%	20		Spike RPD Acceptable.
Sulfate, IC	Q17201201C	49.8mg/L	50	25	1	99.2%	70 - 130		Spike Recovery Acceptable.
7/12/2017 3:58						0.4%	20		Spike RPD Acceptable.
Matrix Spike Dup									
.- Chloride, IC	Q17201201D	60.9mg/L	60	25	1	103.6%	80 - 120		Spike Recovery Acceptable.
7/12/2017 4:36						1.5%	20		Spike RPD Acceptable.
Fluoride, IC	Q17201201D	2.31mg/L	2.46	2	0.25	92.5%	80 - 120		Spike Recovery Acceptable.
7/12/2017 4:36						6.3%	20		Spike RPD Acceptable.
Sulfate, IC	Q17201201D	49.98mg/L	50	25	1	99.9%	70 - 130		Spike Recovery Acceptable.
7/12/2017 4:36						0.0%	20		Spike RPD Acceptable.

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57535

Flag and Qualifier Legend

Negative - Result Detected	***MDL = Method Detection Limit***	***DF = Dilution Factor***
Caution - Problem Detected	*LOQ = Limit of Quantitation*	***j = Analyte detected between MDL and LOQ***
Warning - Null Value	***S = surrogate standard out of limit***	***H = sample out of hold time***

MS, MSD, RPD- Failure may occur due to matrix interference, data released per QA plan

Thursday, August 17, 2017 **B Environmental - LDMS QA Report Summary**

Note: THANK YOU!

DHL Analytical, Inc. **Date:** *19-Jul-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Lab Order: 1707057

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition and Standard Methods.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives except where noted in the following. For Total Metals Analysis, the recoveries of two analytes for the Matrix Spike and Matrix Spike Duplicate (1707057-06 MS/MSD) were above the method control limits. These are flagged accordingly in the QC Summary Report. These analytes were within method control limits in the associated LCS. No further corrective action was taken.

For Total Metals Analysis, the RPD of Boron for the Serial Dilution (1707057-06 SD) was above the method control limit. This is flagged accordingly in the QC Summary Report. This analyte was within method control limits in the associated Post digestion Spike. No further corrective action was taken.

For Metals Analysis, the results of Dissolved Lithium/Molybdenum for five samples was slightly higher than the results of Total Lithium/Molybdenum. The results were within acceptable analytical variation limits. No further corrective action was taken.

DHL Analytical, Inc.

Date: *19-Jul-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR Sampling (57535)
Lab Order: 1707057

Client Sample ID: Blank
Lab ID: 1707057-01
Alternate ID: S171911556
Collection Date: 07/10/17 02:00 PM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	<10.0	5.00	10.0		µg/L	1	07/18/17 11:33 AM
Dissolved Molybdenum	<5.00	2.00	5.00		µg/L	1	07/18/17 11:33 AM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<2.50	0.800	2.50		µg/L	1	07/14/17 02:31 PM
Arsenic	<5.00	2.00	5.00		µg/L	1	07/14/17 02:31 PM
Barium	<10.0	3.00	10.0		µg/L	1	07/14/17 02:31 PM
Beryllium	<1.00	0.300	1.00		µg/L	1	07/14/17 02:31 PM
Boron	<30.0	10.0	30.0		µg/L	1	07/14/17 02:31 PM
Cadmium	<1.00	0.300	1.00		µg/L	1	07/14/17 02:31 PM
Calcium	<300	100	300		µg/L	1	07/14/17 02:31 PM
Chromium	<5.00	2.00	5.00		µg/L	1	07/14/17 02:31 PM
Cobalt	<5.00	3.00	5.00		µg/L	1	07/14/17 02:31 PM
Lead	<1.00	0.300	1.00		µg/L	1	07/14/17 02:31 PM
Lithium	<10.0	5.00	10.0		µg/L	1	07/14/17 02:31 PM
Magnesium	<300	100	300		µg/L	1	07/14/17 02:31 PM
Molybdenum	<5.00	2.00	5.00		µg/L	1	07/14/17 02:31 PM
Potassium	<300	100	300		µg/L	1	07/14/17 02:31 PM
Selenium	<5.00	2.00	5.00		µg/L	1	07/14/17 02:31 PM
Sodium	<300	100	300		µg/L	1	07/14/17 02:31 PM
Thallium	<1.50	0.500	1.50		µg/L	1	07/14/17 02:31 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.200	0.0800	0.200		µg/L	1	07/14/17 09:56 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.32	1	07/13/17 11:04 AM
Alkalinity, Carbonate (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.32	1	07/13/17 11:04 AM
Alkalinity, Hydroxide (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.32	1	07/13/17 11:04 AM
Alkalinity, Total (As CaCO3)	<20.0	20.0	20.0		mg/L @ pH 4.32	1	07/13/17 11:04 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *19-Jul-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR Sampling (57535)
Lab Order: 1707057

Client Sample ID: MW-4
Lab ID: 1707057-02
Alternate ID: S17191155B
Collection Date: 07/10/17 11:26 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	19.6	5.00	10.0		µg/L	1	07/18/17 11:35 AM
Dissolved Molybdenum	<5.00	2.00	5.00		µg/L	1	07/18/17 11:35 AM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<2.50	0.800	2.50		µg/L	1	07/14/17 02:58 PM
Arsenic	8.46	2.00	5.00		µg/L	1	07/14/17 02:58 PM
Barium	58.2	3.00	10.0		µg/L	1	07/14/17 02:58 PM
Beryllium	<1.00	0.300	1.00		µg/L	1	07/14/17 02:58 PM
Boron	271	10.0	30.0		µg/L	1	07/14/17 02:58 PM
Cadmium	<1.00	0.300	1.00		µg/L	1	07/14/17 02:58 PM
Calcium	111000	1000	3000		µg/L	10	07/14/17 02:33 PM
Chromium	3.20	2.00	5.00	J	µg/L	1	07/14/17 02:58 PM
Cobalt	8.50	3.00	5.00		µg/L	1	07/14/17 02:58 PM
Lead	0.567	0.300	1.00	J	µg/L	1	07/14/17 02:58 PM
Lithium	18.7	5.00	10.0		µg/L	1	07/14/17 02:58 PM
Magnesium	18100	100	300		µg/L	1	07/14/17 02:58 PM
Molybdenum	<5.00	2.00	5.00		µg/L	1	07/14/17 02:58 PM
Potassium	1490	100	300		µg/L	1	07/14/17 02:58 PM
Selenium	<5.00	2.00	5.00		µg/L	1	07/14/17 02:58 PM
Sodium	110000	1000	3000		µg/L	10	07/14/17 02:33 PM
Thallium	<1.50	0.500	1.50		µg/L	1	07/14/17 02:58 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.200	0.0800	0.200		µg/L	1	07/14/17 09:59 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	243	10.0	20.0		mg/L @ pH 4.51	1	07/13/17 11:12 AM
Alkalinity, Carbonate (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.51	1	07/13/17 11:12 AM
Alkalinity, Hydroxide (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.51	1	07/13/17 11:12 AM
Alkalinity, Total (As CaCO3)	243	20.0	20.0		mg/L @ pH 4.51	1	07/13/17 11:12 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *19-Jul-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR Sampling (57535)
Lab Order: 1707057

Client Sample ID: MW-8
Lab ID: 1707057-03
Alternate ID: S17191155C
Collection Date: 07/10/17 09:04 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	12.6	5.00	10.0		µg/L	1	07/18/17 11:51 AM
Dissolved Molybdenum	17.0	2.00	5.00		µg/L	1	07/18/17 11:51 AM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<2.50	0.800	2.50		µg/L	1	07/14/17 03:14 PM
Arsenic	9.02	2.00	5.00		µg/L	1	07/14/17 03:14 PM
Barium	63.1	3.00	10.0		µg/L	1	07/14/17 03:14 PM
Beryllium	<1.00	0.300	1.00		µg/L	1	07/14/17 03:14 PM
Boron	1240	100	300		µg/L	10	07/14/17 02:36 PM
Cadmium	<1.00	0.300	1.00		µg/L	1	07/14/17 03:14 PM
Calcium	92600	1000	3000		µg/L	10	07/14/17 02:36 PM
Chromium	<5.00	2.00	5.00		µg/L	1	07/14/17 03:14 PM
Cobalt	31.0	3.00	5.00		µg/L	1	07/14/17 03:14 PM
Lead	0.375	0.300	1.00	J	µg/L	1	07/14/17 03:14 PM
Lithium	11.2	5.00	10.0		µg/L	1	07/14/17 03:14 PM
Magnesium	12700	100	300		µg/L	1	07/14/17 03:14 PM
Molybdenum	16.5	2.00	5.00		µg/L	1	07/14/17 03:14 PM
Potassium	986	100	300		µg/L	1	07/14/17 03:14 PM
Selenium	<5.00	2.00	5.00		µg/L	1	07/14/17 03:14 PM
Sodium	85900	1000	3000		µg/L	10	07/14/17 02:36 PM
Thallium	<1.50	0.500	1.50		µg/L	1	07/14/17 03:14 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.200	0.0800	0.200		µg/L	1	07/14/17 10:01 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	255	10.0	20.0		mg/L @ pH 4.52	1	07/13/17 11:20 AM
Alkalinity, Carbonate (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.52	1	07/13/17 11:20 AM
Alkalinity, Hydroxide (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.52	1	07/13/17 11:20 AM
Alkalinity, Total (As CaCO3)	255	20.0	20.0		mg/L @ pH 4.52	1	07/13/17 11:20 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *19-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	BV-15
Project:	Coleto Creek Power	**Lab ID:**	1707057-04
Project No:	CCR Sampling (57535)	**Alternate ID:**	S17191155D
Lab Order:	1707057	**Collection Date:**	07/10/17 11:04 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	7.54	5.00	10.0	J	µg/L	1	07/18/17 11:53 AM
Dissolved Molybdenum	17.8	2.00	5.00		µg/L	1	07/18/17 11:53 AM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<2.50	0.800	2.50		µg/L	1	07/14/17 03:16 PM
Arsenic	9.48	2.00	5.00		µg/L	1	07/14/17 03:16 PM
Barium	57.4	3.00	10.0		µg/L	1	07/14/17 03:16 PM
Beryllium	<1.00	0.300	1.00		µg/L	1	07/14/17 03:16 PM
Boron	1250	100	300		µg/L	10	07/14/17 02:38 PM
Cadmium	<1.00	0.300	1.00		µg/L	1	07/14/17 03:16 PM
Calcium	76700	1000	3000		µg/L	10	07/14/17 02:38 PM
Chromium	<5.00	2.00	5.00		µg/L	1	07/14/17 03:16 PM
Cobalt	14.6	3.00	5.00		µg/L	1	07/14/17 03:16 PM
Lead	4.81	0.300	1.00		µg/L	1	07/14/17 03:16 PM
Lithium	7.56	5.00	10.0	J	µg/L	1	07/14/17 03:16 PM
Magnesium	8610	100	300		µg/L	1	07/14/17 03:16 PM
Molybdenum	18.2	2.00	5.00		µg/L	1	07/14/17 03:16 PM
Potassium	1170	100	300		µg/L	1	07/14/17 03:16 PM
Selenium	<5.00	2.00	5.00		µg/L	1	07/14/17 03:16 PM
Sodium	77600	1000	3000		µg/L	10	07/14/17 02:38 PM
Thallium	<1.50	0.500	1.50		µg/L	1	07/14/17 03:16 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.200	0.0800	0.200		µg/L	1	07/14/17 10:03 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	202	10.0	20.0		mg/L @ pH 4.51	1	07/13/17 11:26 AM
Alkalinity, Carbonate (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.51	1	07/13/17 11:26 AM
Alkalinity, Hydroxide (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.51	1	07/13/17 11:26 AM
Alkalinity, Total (As CaCO3)	202	20.0	20.0		mg/L @ pH 4.51	1	07/13/17 11:26 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *19-Jul-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR Sampling (57535)
Lab Order: 1707057

Client Sample ID: BV-21
Lab ID: 1707057-05
Alternate ID: S17191155E
Collection Date: 07/10/17 10:34 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	6.28	5.00	10.0	J	µg/L	1	07/18/17 11:55 AM
Dissolved Molybdenum	2.52	2.00	5.00	J	µg/L	1	07/18/17 11:55 AM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<2.50	0.800	2.50		µg/L	1	07/14/17 03:18 PM
Arsenic	123	2.00	5.00		µg/L	1	07/14/17 03:18 PM
Barium	110	3.00	10.0		µg/L	1	07/14/17 03:18 PM
Beryllium	<1.00	0.300	1.00		µg/L	1	07/14/17 03:18 PM
Boron	674	100	300		µg/L	10	07/14/17 02:54 PM
Cadmium	<1.00	0.300	1.00		µg/L	1	07/14/17 03:18 PM
Calcium	90600	1000	3000		µg/L	10	07/14/17 02:54 PM
Chromium	2.57	2.00	5.00	J	µg/L	1	07/14/17 03:18 PM
Cobalt	8.60	3.00	5.00		µg/L	1	07/14/17 03:18 PM
Lead	0.812	0.300	1.00	J	µg/L	1	07/14/17 03:18 PM
Lithium	5.38	5.00	10.0	J	µg/L	1	07/14/17 03:18 PM
Magnesium	8370	100	300		µg/L	1	07/14/17 03:18 PM
Molybdenum	2.50	2.00	5.00	J	µg/L	1	07/14/17 03:18 PM
Potassium	902	100	300		µg/L	1	07/14/17 03:18 PM
Selenium	<5.00	2.00	5.00		µg/L	1	07/14/17 03:18 PM
Sodium	60400	1000	3000		µg/L	10	07/14/17 02:54 PM
Thallium	<1.50	0.500	1.50		µg/L	1	07/14/17 03:18 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.200	0.0800	0.200		µg/L	1	07/14/17 10:06 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	240	10.0	20.0		mg/L @ pH 4.51	1	07/13/17 11:34 AM
Alkalinity, Carbonate (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.51	1	07/13/17 11:34 AM
Alkalinity, Hydroxide (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.51	1	07/13/17 11:34 AM
Alkalinity, Total (As CaCO3)	240	20.0	20.0		mg/L @ pH 4.51	1	07/13/17 11:34 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *19-Jul-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR Sampling (57535)
Lab Order: 1707057

Client Sample ID: BV-22
Lab ID: 1707057-06
Alternate ID: S17191155F
Collection Date: 07/10/17 09:47 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	7.00	5.00	10.0	J	µg/L	1	07/18/17 11:16 AM
Dissolved Molybdenum	8.62	2.00	5.00		µg/L	1	07/18/17 11:16 AM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<2.50	0.800	2.50		µg/L	1	07/14/17 03:10 PM
Arsenic	6.68	2.00	5.00		µg/L	1	07/14/17 03:10 PM
Barium	52.5	3.00	10.0		µg/L	1	07/14/17 03:10 PM
Beryllium	<1.00	0.300	1.00		µg/L	1	07/14/17 03:10 PM
Boron	599	100	300		µg/L	10	07/14/17 02:17 PM
Cadmium	<1.00	0.300	1.00		µg/L	1	07/14/17 03:10 PM
Calcium	92000	1000	3000		µg/L	10	07/14/17 02:17 PM
Chromium	<5.00	2.00	5.00		µg/L	1	07/14/17 03:10 PM
Cobalt	<5.00	3.00	5.00		µg/L	1	07/14/17 03:10 PM
Lead	0.986	0.300	1.00	J	µg/L	1	07/14/17 03:10 PM
Lithium	7.38	5.00	10.0	J	µg/L	1	07/14/17 03:10 PM
Magnesium	10600	100	300		µg/L	1	07/14/17 03:10 PM
Molybdenum	8.52	2.00	5.00		µg/L	1	07/14/17 03:10 PM
Potassium	1050	100	300		µg/L	1	07/14/17 03:10 PM
Selenium	<5.00	2.00	5.00		µg/L	1	07/14/17 03:10 PM
Sodium	60600	1000	3000		µg/L	10	07/14/17 02:17 PM
Thallium	<1.50	0.500	1.50		µg/L	1	07/14/17 03:10 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.200	0.0800	0.200		µg/L	1	07/14/17 10:08 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	244	10.0	20.0		mg/L @ pH 4.51	1	07/13/17 11:42 AM
Alkalinity, Carbonate (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.51	1	07/13/17 11:42 AM
Alkalinity, Hydroxide (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.51	1	07/13/17 11:42 AM
Alkalinity, Total (As CaCO3)	244	20.0	20.0		mg/L @ pH 4.51	1	07/13/17 11:42 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *19-Jul-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR Sampling (57535)
Lab Order: 1707057

Client Sample ID: Dup1
Lab ID: 1707057-07
Alternate ID: S17191155G
Collection Date: 07/10/17
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	11.9	5.00	10.0		µg/L	1	07/18/17 11:57 AM
Dissolved Molybdenum	16.6	2.00	5.00		µg/L	1	07/18/17 11:57 AM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<2.50	0.800	2.50		µg/L	1	07/14/17 03:20 PM
Arsenic	9.30	2.00	5.00		µg/L	1	07/14/17 03:20 PM
Barium	64.6	3.00	10.0		µg/L	1	07/14/17 03:20 PM
Beryllium	<1.00	0.300	1.00		µg/L	1	07/14/17 03:20 PM
Boron	1350	100	300		µg/L	10	07/14/17 02:56 PM
Cadmium	<1.00	0.300	1.00		µg/L	1	07/14/17 03:20 PM
Calcium	96500	1000	3000		µg/L	10	07/14/17 02:56 PM
Chromium	12.9	2.00	5.00		µg/L	1	07/14/17 03:20 PM
Cobalt	32.0	3.00	5.00		µg/L	1	07/14/17 03:20 PM
Lead	0.321	0.300	1.00	J	µg/L	1	07/14/17 03:20 PM
Lithium	11.0	5.00	10.0		µg/L	1	07/14/17 03:20 PM
Magnesium	13200	100	300		µg/L	1	07/14/17 03:20 PM
Molybdenum	16.9	2.00	5.00		µg/L	1	07/14/17 03:20 PM
Potassium	1040	100	300		µg/L	1	07/14/17 03:20 PM
Selenium	<5.00	2.00	5.00		µg/L	1	07/14/17 03:20 PM
Sodium	89500	1000	3000		µg/L	10	07/14/17 02:56 PM
Thallium	<1.50	0.500	1.50		µg/L	1	07/14/17 03:20 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.200	0.0800	0.200		µg/L	1	07/14/17 10:19 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	256	10.0	20.0		mg/L @ pH 4.52	1	07/13/17 11:58 AM
Alkalinity, Carbonate (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.52	1	07/13/17 11:58 AM
Alkalinity, Hydroxide (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.52	1	07/13/17 11:58 AM
Alkalinity, Total (As CaCO3)	256	20.0	20.0		mg/L @ pH 4.52	1	07/13/17 11:58 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *19-Jul-17*

CLIENT: B-Environmental
Work Order: 1707057
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_170714A

The QC data in batch 81404 applies to the following samples: 1707057-01A, 1707057-02A, 1707057-03A, 1707057-04A, 1707057-05A, 1707057-06A, 1707057-07A

Sample ID	MB-81404	Batch ID:	81404	TestNo:	SW7470A	Units:	µg/L
SampType:	MBLK	Run ID:	CETAC2_HG_170714A	Analysis Date:	7/14/2017 9:45:37 AM	Prep Date:	7/13/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.200	0.200								

Sample ID	LCS-81404	Batch ID:	81404	TestNo:	SW7470A	Units:	µg/L
SampType:	LCS	Run ID:	CETAC2_HG_170714A	Analysis Date:	7/14/2017 9:47:53 AM	Prep Date:	7/13/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	2.10	0.200	2.000	0	105	85	115			

Sample ID	LCSD-81404	Batch ID:	81404	TestNo:	SW7470A	Units:	µg/L
SampType:	LCSD	Run ID:	CETAC2_HG_170714A	Analysis Date:	7/14/2017 9:50:09 AM	Prep Date:	7/13/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	2.02	0.200	2.000	0	101	85	115	3.88	15	

Sample ID	1707057-06A SD	Batch ID:	81404	TestNo:	SW7470A	Units:	µg/L
SampType:	SD	Run ID:	CETAC2_HG_170714A	Analysis Date:	7/14/2017 10:10:32 AM	Prep Date:	7/13/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<1.00	1.00	0	0				0	10	

Sample ID	1707057-06A PDS	Batch ID:	81404	TestNo:	SW7470A	Units:	µg/L
SampType:	PDS	Run ID:	CETAC2_HG_170714A	Analysis Date:	7/14/2017 10:12:47 AM	Prep Date:	7/13/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	2.43	0.200	2.500	0	97.2	85	115			

Sample ID	1707057-06A MS	Batch ID:	81404	TestNo:	SW7470A	Units:	µg/L
SampType:	MS	Run ID:	CETAC2_HG_170714A	Analysis Date:	7/14/2017 10:15:03 AM	Prep Date:	7/13/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	2.04	0.200	2.000	0	102	80	120			

Sample ID	1707057-06A MSD	Batch ID:	81404	TestNo:	SW7470A	Units:	µg/L
SampType:	MSD	Run ID:	CETAC2_HG_170714A	Analysis Date:	7/14/2017 10:17:20 AM	Prep Date:	7/13/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	2.02	0.200	2.000	0	101	80	120	0.985	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707057
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170714A

The QC data in batch 81372 applies to the following samples: 1707057-01A, 1707057-02A, 1707057-03A, 1707057-04A, 1707057-05A, 1707057-06A, 1707057-07A

Sample ID **MB-81372** Batch ID: **81372** TestNo: **SW6020A** Units: **µg/L**
SampType: **MBLK** Run ID: **ICP-MS4_170714A** Analysis Date: **7/14/2017 2:09:00 PM** Prep Date: **7/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<2.50	2.50								
Arsenic	<5.00	5.00								
Barium	<10.0	10.0								
Beryllium	<1.00	1.00								
Boron	<30.0	30.0								
Cadmium	<1.00	1.00								
Calcium	<300	300								
Chromium	<5.00	5.00								
Cobalt	<5.00	5.00								
Lead	<1.00	1.00								
Lithium	<10.0	10.0								
Magnesium	<300	300								
Molybdenum	<5.00	5.00								
Potassium	<300	300								
Selenium	<5.00	5.00								
Sodium	<300	300								
Thallium	<1.50	1.50								

Sample ID **LCS-81372** Batch ID: **81372** TestNo: **SW6020A** Units: **µg/L**
SampType: **LCS** Run ID: **ICP-MS4_170714A** Analysis Date: **7/14/2017 2:11:00 PM** Prep Date: **7/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	199	2.50	200.0	0	99.6	80	120			
Arsenic	202	5.00	200.0	0	101	80	120			
Barium	199	10.0	200.0	0	99.3	80	120			
Beryllium	207	1.00	200.0	0	103	80	120			
Boron	205	30.0	200.0	0	102	80	120			
Cadmium	201	1.00	200.0	0	101	80	120			
Calcium	5380	300	5000	0	108	80	120			
Chromium	205	5.00	200.0	0	103	80	120			
Cobalt	208	5.00	200.0	0	104	80	120			
Lead	199	1.00	200.0	0	99.7	80	120			
Lithium	208	10.0	200.0	0	104	80	120			
Magnesium	5070	300	5000	0	101	80	120			
Molybdenum	192	5.00	200.0	0	96.2	80	120			
Potassium	5090	300	5000	0	102	80	120			
Selenium	204	5.00	200.0	0	102	80	120			
Sodium	5170	300	5000	0	103	80	120			
Thallium	204	1.50	200.0	0	102	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707057
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170714A

Sample ID **LCSD-81372** Batch ID: **81372** TestNo: **SW6020A** Units: **µg/L**
SampType: **LCSD** Run ID: **ICP-MS4_170714A** Analysis Date: **7/14/2017 2:13:00 PM** Prep Date: **7/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	202	2.50	200.0	0	101	80	120	1.30	15	
Arsenic	204	5.00	200.0	0	102	80	120	0.981	15	
Barium	201	10.0	200.0	0	100	80	120	1.18	15	
Beryllium	208	1.00	200.0	0	104	80	120	0.492	15	
Boron	205	30.0	200.0	0	103	80	120	0.115	15	
Cadmium	204	1.00	200.0	0	102	80	120	1.25	15	
Calcium	5460	300	5000	0	109	80	120	1.42	15	
Chromium	208	5.00	200.0	0	104	80	120	1.32	15	
Cobalt	209	5.00	200.0	0	105	80	120	0.787	15	
Lead	200	1.00	200.0	0	100	80	120	0.507	15	
Lithium	209	10.0	200.0	0	105	80	120	0.792	15	
Magnesium	5150	300	5000	0	103	80	120	1.51	15	
Molybdenum	195	5.00	200.0	0	97.6	80	120	1.39	15	
Potassium	5190	300	5000	0	104	80	120	1.89	15	
Selenium	205	5.00	200.0	0	102	80	120	0.298	15	
Sodium	5140	300	5000	0	103	80	120	0.547	15	
Thallium	203	1.50	200.0	0	102	80	120	0.502	15	

Sample ID **1707057-06A SD** Batch ID: **81372** TestNo: **SW6020A** Units: **µg/L**
SampType: **SD** Run ID: **ICP-MS4_170714A** Analysis Date: **7/14/2017 2:19:00 PM** Prep Date: **7/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	677	1500	0	599.0				12.2	10	R
Calcium	93200	15000	0	92020				1.29	10	
Sodium	61000	15000	0	60560				0.779	10	

Sample ID **1707057-06A PDS** Batch ID: **81372** TestNo: **SW6020A** Units: **µg/L**
SampType: **PDS** Run ID: **ICP-MS4_170714A** Analysis Date: **7/14/2017 2:40:00 PM** Prep Date: **7/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	2750	300	2000	599.0	108	80	120			
Calcium	151000	3000	50000	92020	118	80	120			
Sodium	116000	3000	50000	60560	112	80	120			

Sample ID **1707057-06A MS** Batch ID: **81372** TestNo: **SW6020A** Units: **µg/L**
SampType: **MS** Run ID: **ICP-MS4_170714A** Analysis Date: **7/14/2017 2:42:00 PM** Prep Date: **7/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	835	300	200.0	599.0	118	80	120			
Calcium	98300	3000	5000	92020	126	80	120			S
Sodium	66700	3000	5000	60560	123	80	120			S

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707057
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170714A

Sample ID 1707057-06A MSD	Batch ID: 81372	TestNo: SW6020A	Units: µg/L
SampType: MSD	Run ID: ICP-MS4_170714A	Analysis Date: 7/14/2017 2:44:00 PM	Prep Date: 7/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	892	300	200.0	599.0	147	80	120	6.67	15	S
Calcium	98300	3000	5000	92020	126	80	120	0.013	15	S
Sodium	66100	3000	5000	60560	112	80	120	0.832	15	

Sample ID 1707057-06A SD	Batch ID: 81372	TestNo: SW6020A	Units: µg/L
SampType: SD	Run ID: ICP-MS4_170714A	Analysis Date: 7/14/2017 3:12:00 PM	Prep Date: 7/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<12.5	12.5	0	0				0	10	
Arsenic	<25.0	25.0	0	6.683				0	10	
Barium	52.3	50.0	0	52.51				0.378	10	
Beryllium	<5.00	5.00	0	0				0	10	
Cadmium	<5.00	5.00	0	0				0	10	
Chromium	<25.0	25.0	0	0				0	10	
Cobalt	<25.0	25.0	0	0				0	10	
Lead	<5.00	5.00	0	0.9860				0	10	
Lithium	<50.0	50.0	0	7.375				0	10	
Magnesium	10700	1500	0	10570				1.14	10	
Molybdenum	<25.0	25.0	0	8.515				0	10	
Potassium	1050	1500	0	1046				0.734	10	
Selenium	<25.0	25.0	0	0				0	10	
Thallium	<7.50	7.50	0	0				0	10	

Sample ID 1707057-06A PDS	Batch ID: 81372	TestNo: SW6020A	Units: µg/L
SampType: PDS	Run ID: ICP-MS4_170714A	Analysis Date: 7/14/2017 3:32:00 PM	Prep Date: 7/12/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	193	2.50	200.0	0	96.4	80	120			
Arsenic	210	5.00	200.0	6.683	102	80	120			
Barium	253	10.0	200.0	52.51	100	80	120			
Beryllium	203	1.00	200.0	0	101	80	120			
Cadmium	199	1.00	200.0	0	99.7	80	120			
Chromium	213	5.00	200.0	0	107	80	120			
Cobalt	210	5.00	200.0	0	105	80	120			
Lead	200	1.00	200.0	0.9860	99.3	80	120			
Lithium	207	10.0	200.0	7.375	99.9	80	120			
Magnesium	14700	300	5000	10570	83.4	80	120			
Molybdenum	197	5.00	200.0	8.515	94.1	80	120			
Potassium	5980	300	5000	1046	98.7	80	120			
Selenium	203	5.00	200.0	0	101	80	120			
Thallium	205	1.50	200.0	0	103	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707057
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170714A

Sample ID **1707057-06A MS** Batch ID: **81372** TestNo: **SW6020A** Units: **µg/L**
SampType: **MS** Run ID: **ICP-MS4_170714A** Analysis Date: **7/14/2017 3:34:00 PM** Prep Date: **7/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	201	2.50	200.0	0	100	80	120			
Arsenic	210	5.00	200.0	6.683	102	80	120			
Barium	252	10.0	200.0	52.51	99.6	80	120			
Beryllium	200	1.00	200.0	0	99.8	80	120			
Cadmium	196	1.00	200.0	0	98.2	80	120			
Chromium	205	5.00	200.0	0	102	80	120			
Cobalt	205	5.00	200.0	0	102	80	120			
Lead	201	1.00	200.0	0.9860	100	80	120			
Lithium	206	10.0	200.0	7.375	99.3	80	120			
Magnesium	15400	300	5000	10570	96.3	80	120			
Molybdenum	201	5.00	200.0	8.515	96.3	80	120			
Potassium	6170	300	5000	1046	103	80	120			
Selenium	202	5.00	200.0	0	101	80	120			
Thallium	208	1.50	200.0	0	104	80	120			

Sample ID **1707057-06A MSD** Batch ID: **81372** TestNo: **SW6020A** Units: **µg/L**
SampType: **MSD** Run ID: **ICP-MS4_170714A** Analysis Date: **7/14/2017 3:36:00 PM** Prep Date: **7/12/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	202	2.50	200.0	0	101	80	120	0.801	15	
Arsenic	213	5.00	200.0	6.683	103	80	120	1.35	15	
Barium	257	10.0	200.0	52.51	102	80	120	2.11	15	
Beryllium	202	1.00	200.0	0	101	80	120	0.997	15	
Cadmium	199	1.00	200.0	0	99.3	80	120	1.07	15	
Chromium	208	5.00	200.0	0	104	80	120	1.39	15	
Cobalt	208	5.00	200.0	0	104	80	120	1.79	15	
Lead	202	1.00	200.0	0.9860	101	80	120	0.652	15	
Lithium	208	10.0	200.0	7.375	100	80	120	0.864	15	
Magnesium	15600	300	5000	10570	99.8	80	120	1.14	15	
Molybdenum	203	5.00	200.0	8.515	97.4	80	120	1.08	15	
Potassium	6210	300	5000	1046	103	80	120	0.625	15	
Selenium	206	5.00	200.0	0	103	80	120	1.63	15	
Thallium	208	1.50	200.0	0	104	80	120	0.064	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707057
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170718A

The QC data in batch 81442 applies to the following samples: 1707057-01B, 1707057-02B, 1707057-03B, 1707057-04B, 1707057-05B, 1707057-06B, 1707057-07B

Sample ID MB-81442	Batch ID: 81442	TestNo: SW6020A	Units: µg/L
SampType: MBLK	Run ID: ICP-MS4_170718A	Analysis Date: 7/18/2017 11:08:00 AM	Prep Date: 7/17/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<10.0	10.0								
Molybdenum	<5.00	5.00								

Sample ID LCS-81442	Batch ID: 81442	TestNo: SW6020A	Units: µg/L
SampType: LCS	Run ID: ICP-MS4_170718A	Analysis Date: 7/18/2017 11:10:00 AM	Prep Date: 7/17/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	202	10.0	200.0	0	101	80	120			
Molybdenum	198	5.00	200.0	0	98.8	80	120			

Sample ID LCSD-81442	Batch ID: 81442	TestNo: SW6020A	Units: µg/L
SampType: LCSD	Run ID: ICP-MS4_170718A	Analysis Date: 7/18/2017 11:12:00 AM	Prep Date: 7/17/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	208	10.0	200.0	0	104	80	120	2.64	15	
Molybdenum	199	5.00	200.0	0	99.3	80	120	0.505	15	

Sample ID 1707057-06B SD	Batch ID: 81442	TestNo: SW6020A	Units: µg/L
SampType: SD	Run ID: ICP-MS4_170718A	Analysis Date: 7/18/2017 11:18:00 AM	Prep Date: 7/17/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<50.0	50.0	0	7.002				0	10	
Molybdenum	<25.0	25.0	0	8.622				0	10	

Sample ID 1707057-06B PDS	Batch ID: 81442	TestNo: SW6020A	Units: µg/L
SampType: PDS	Run ID: ICP-MS4_170718A	Analysis Date: 7/18/2017 11:37:00 AM	Prep Date: 7/17/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	198	10.0	200.0	7.002	95.3	80	120			
Molybdenum	200	5.00	200.0	8.622	95.9	80	120			

Sample ID 1707057-06B MS	Batch ID: 81442	TestNo: SW6020A	Units: µg/L
SampType: MS	Run ID: ICP-MS4_170718A	Analysis Date: 7/18/2017 11:39:00 AM	Prep Date: 7/17/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Lithium	196	10.0	200.0	7.002	94.5	80	120			
Dissolved Molybdenum	204	5.00	200.0	8.622	97.6	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707057
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170718A

Sample ID **1707057-06B MSD**	Batch ID: **81442**	TestNo: **SW6020A**	Units: **µg/L**
SampType: **MSD**	Run ID: **ICP-MS4_170718A**	Analysis Date: **7/18/2017 11:41:00 AM**	Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Lithium	199	10.0	200.0	7.002	95.8	80	120	1.36	15	
Dissolved Molybdenum	204	5.00	200.0	8.622	97.9	80	120	0.288	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707057
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_170713B

The QC data in batch 81394 applies to the following samples: 1707057-01C, 1707057-02C, 1707057-03C, 1707057-04C, 1707057-05C, 1707057-06C, 1707057-07C

Sample ID **MB-81394** Batch ID: **81394** TestNo: **M2320 B** Units: **mg/L @ pH 4.31**
SampType: **MBLK** Run ID: **TITRATOR_170713B** Analysis Date: **7/13/2017 10:29:00 AM** Prep Date: **7/13/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	<20.0	20.0								
Alkalinity, Carbonate (As CaCO3)	<20.0	20.0								
Alkalinity, Hydroxide (As CaCO3)	<20.0	20.0								
Alkalinity, Total (As CaCO3)	<20.0	20.0								

Sample ID **LCS-81394** Batch ID: **81394** TestNo: **M2320 B** Units: **mg/L @ pH 3.99**
SampType: **LCS** Run ID: **TITRATOR_170713B** Analysis Date: **7/13/2017 10:33:00 AM** Prep Date: **7/13/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	53.1	20.0	50.00	0	106	74	129			

Sample ID **1707057-06C-DUP** Batch ID: **81394** TestNo: **M2320 B** Units: **mg/L @ pH 4.51**
SampType: **DUP** Run ID: **TITRATOR_170713B** Analysis Date: **7/13/2017 11:49:00 AM** Prep Date: **7/13/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	237	20.0	0	243.5				2.83	20	
Alkalinity, Carbonate (As CaCO3)	<20.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<20.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	237	20.0	0	243.5				2.83	20	

Sample ID **1707073-01D-DUP** Batch ID: **81394** TestNo: **M2320 B** Units: **mg/L @ pH 4.44**
SampType: **DUP** Run ID: **TITRATOR_170713B** Analysis Date: **7/13/2017 12:15:00 PM** Prep Date: **7/13/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	53.9	20.0	0	61.80				13.7	20	
Alkalinity, Carbonate (As CaCO3)	72.4	20.0	0	73.80				1.92	20	
Alkalinity, Hydroxide (As CaCO3)	<20.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	126	20.0	0	135.6				7.10	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

2609 North River Road, Port Allen, Louisiana 70767
(800) 401-4277 -- FAX (225) 381-2996

ARS International, LLC

Laboratory Analysis Report

ARS1-17-02104

Prepared for:

B-Environmental

Kevin Baros
1606 East Brazos Street
Suite D
Victoria, TX 77901

dbenviro@suddenlinkmail.com; cbenviro@suddenlinkmail.com
swbenviro@suddenlinkmail.com

Phone: 361-572-8224
Fax: 361-572-4115

Project Manager Review

Management Review

Notes: ARS International, LLC assumes no liability for the use or the interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

Contact Person: Questions regarding this analytical report should be addressed to:

Project Manager

ProjectManagers@amrad.com

Phone: 225.381.2991
Fax: 225.381.2996

LELAP Cert# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-02104
Client Sample ID: S171911556 (Batch 57535)
Sample Collection Date: 07/10/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02104-001
Date Received: 07/14/17
Report Date: 08/08/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.269	0.140	0.143	0.054	NP		pCi/L	ARS-010/EPA 903.0/904.0	08/07/17 8:05	CTRAMEL	109%
Ra-228	0.056	0.575	1.033	0.479	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/31/17 12:33	CTRAMEL	109%

Project Manager Review

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-02104
Client Sample ID: S17191155B (Batch 57535)
Sample Collection Date: 07/10/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02104-002
Date Received: 07/14/17
Report Date: 08/08/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.085	0.126	0.214	0.083	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/07/17 8:05	CTRAMEL	76%
Ra-228	0.984	0.948	1.539	0.718	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/31/17 12:33	CTRAMEL	75%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-02104
Client Sample ID: S17191155C (Batch 57535)
Sample Collection Date: 07/10/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02104-003
Date Received: 07/14/17
Report Date: 08/08/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.274	0.176	0.236	0.098	NP		pCi/L	ARS-010/EPA 903.0/904.0	08/07/17 8:05	CTRAMEL	83%
Ra-228	0.530	0.816	1.382	0.643	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/31/17 12:33	CTRAMEL	81%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-02104
Client Sample ID: S17191155D (Batch 57535)
Sample Collection Date: 07/10/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02104-004
Date Received: 07/14/17
Report Date: 08/08/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.198	0.163	0.244	0.103	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/07/17 8:05	CTRAMEL	98%
Ra-228	1.471	0.796	1.157	0.538	NP		pCi/L	ARS-010/EPA 903.0/904.0	07/31/17 12:33	CTRAMEL	102%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-02104
Client Sample ID: S17191155E (Batch 57535)
Sample Collection Date: 07/10/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02104-005
Date Received: 07/14/17
Report Date: 08/08/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.418	0.192	0.209	0.086	NP		pCi/L	ARS-010/EPA 903.0/904.0	08/07/17 8:05	CTRAMEL	104%
Ra-228	0.387	0.645	1.099	0.510	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/31/17 12:33	CTRAMEL	110%

Project Manager Review

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-02104
Client Sample ID: S17191155F (Batch 57535)
Sample Collection Date: 07/10/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02104-006
Date Received: 07/14/17
Report Date: 08/08/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.139	0.123	0.179	0.071	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/07/17 8:05	CTRAMEL	107%
Ra-228	0.749	0.758	1.236	0.574	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/31/17 12:33	CTRAMEL	94%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-02104
Client Sample ID: S17191155G
Sample Collection Date: 07/10/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02104-007
Date Received: 07/14/17
Report Date: 08/08/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.259	0.143	0.160	0.062	NP		pCi/L	ARS-010/EPA 903.0/904.0	08/07/17 8:05	CTRAMEL	104%
Ra-228	-0.153	0.974	1.751	0.827	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/31/17 12:33	CTRAMEL	80%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

INTERNATIONAL

QC Results Report

Sample Delivery Group: ARS1-17-02104

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-01523	LCS	RA-226	23.310	3.780	0.118	27.595	N/A	pCi/L	ARS-010/EPA 903	8/7/17 10:04	CT	84	75%-125%
ARS1-B17-01523	LCS	RA-228	39.236	6.563	1.261	39.784	N/A	pCi/L	ARS-010/EPA 904	7/31/17 14:33	CT	99	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-01523	MBL	RA-226	0.067	0.063	0.094	NA	U	pCi/L	ARS-010/EPA 903	8/7/17 10:04	CT
ARS1-B17-01523	MBL	RA-228	-0.042	0.309	0.565	NA	U	pCi/L	ARS-010/EPA 904	7/31/17 14:33	CT

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER Acceptance Range
ARS1-B17-01523	LCSD	RA-226	23.310	3.780	22.566	3.656	N/A	pCi/L	ARS-010/EPA 903	8/7/17 10:04	CT	0.10	< 1
ARS1-B17-01523	LCSD	RA-228	39.236	6.563	37.087	6.165	N/A	pCi/L	ARS-010/EPA 904	7/31/17 14:33	CT	0.17	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER Acceptance Range
ARS1-B17-01523	LCSD	RA-226	23.310	3.780	22.566	3.656	N/A	pCi/L	ARS-010/EPA 903	8/7/17 10:04	CT	0.14	< 3
ARS1-B17-01523	LCSD	RA-228	39.236	6.563	37.087	6.165	N/A	pCi/L	ARS-010/EPA 904	7/31/17 14:33	CT	0.24	< 3

Matrix Spike

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery(%)	MS Acceptance Range
ARS1-B17-01523	MS	Ra-226	54.412	8.768	0.176	55.094	N/A	pCi/L	ARS-010/EPA 903	8/7/17 10:04	CT	99	60%-140%
ARS1-B17-01523	MS	Ra-228	38.589	6.606	1.482	51.130	N/A	pCi/L	ARS-010/EPA 904	7/31/17 14:33	CT	75	60%-140%
ARS1-B17-01523	MSD	Ra-226	43.895	7.099	0.156	55.309	N/A	pCi/L	ARS-010/EPA 903	8/7/17 10:04	CT	79	60%-140%
ARS1-B17-01523	MSD	Ra-228	39.000	6.690	1.837	51.434	N/A	pCi/L	ARS-010/EPA 904	7/31/17 14:33	CT	76	60%-140%

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

ARS INTERNATIONAL
2609 North River Road • Port Allen, Louisiana 70767
1 (800) 401-4277 • Fax (225) 381-2996

Notes (Case Narrative):

Comments:

1.0) All MDA/MDC values are calculated on a sample specific basis.
2.0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.
3.0) Data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.
4.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix. Modified analyses are indicated by the subsequent addition of "m" to the procedure number (i.e. 900.0M).
5.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than the actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
6.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228 (Gamma Spectroscopy only).
7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234 (Gamma Spectroscopy only).
8.0) All gamma spectroscopy was performed utilizing high purity germanium detectors (**HPGe**).
9.0) ARS makes every attempt to match sample density to calibrated density; however, in some cases, it is not practical or possible to do so and data results may be affected (Gamma Spectroscopy only).
10.0) Gamma spectroscopy results are calculated values based on the **ORTEC®** GammaVision ENV32 Analysis Engine.
11.0) ACLASS DOD and ISO 17025 certification applies only to the following analytes and methods: Gross Alpha and Gross Beta (EPA 900, SM7110B&C, SW846 9310); Radium 226 (EPA 903, EPA 903.1, SM 7500 Ra-B, SW846 9315); Radium 228 (EPA 904, SM 7500 Ra-B SW846 9320); Iodine-131(EPA 901.1); Uranium by ICPMS (EPA 200.8); Strontium 89/90 (EPA 905, Eichrom SRW01, HASL 300 Sr-03-RC); Tritium (EPA 906, EPA 906M); Gamma Emitters (EPA 901.1, SM7120B, HASL 300 Ga-01-R); Americium-241, Curium 242/244, Plutonium 239/240 and 241, Thorium 228/230/232, Uranium 234/233 and 238 (Eichrom ACW03 VBS); Lead 210 (HASL 300 Pb-01-RC, Eichrom OTW01); Polonium 210 (HASL 300 Po-01-RC, HASL 300 Po-02-RC); Technetium-99 (Eichrom TCW02, Eichrom TCS01M).

Method References:

1.0) **EPA 600/4-80-032**; Prescribed Procedures for the Measurements of Radioactivity in Drinking Water, August 1980.
2.0) **Standard Methods for the Examination of Water and Wastewater** (On-Line Edition)
3.0) **EPA SW-846**; Test Methods for Evaluating Solid Waste, (On-Line edition)
4.0) **EPA 600/4/79-020**; Methods for Chemical Analysis of Water and Waste, March 1983.
5.0) **HASL 300**; The Procedures Manual of the Environmental Measurements Laboratory, Volume I, 28th Edition February, 1997.

Definitions:

CRDL	Contract Required Detection Limit
CSU	Combined Standard Uncertainty
DLC	Decision Level Concentration (ANSI N42.23) or critical level
DO	Duplicate Original
DUP	Method Duplicate
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
MDA	Minimum Detectable Activity
MDC	(Minimum Detectable Concentration) minimum concentration of the analyte that ARS can detect utilizing the specific analysis
MBL	Method Blank
MS/MSD	Matrix Spike/Matrix Spike Duplicate
N/A	Not Applicable
NP	Not Provided
NR	Not Referenced
LOD	Limit of Detection
LOQ	Limit of Quantitation

Data Qualifiers:

B	The analyte is found in both the associated method blank and the sample. This flag indicates probable blank contamination.
D	Sample analysis accomplished through dilution.
J	The reported result is an estimated value above the limit of detection but outside of quantitation range (e.g., matrix interference was observed).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).
U	Activity is below the MDC, MDA, MDL, or LOD
N	The analyte is a tentatively identified compound using mass spectrometry or any non-customer requested compounds that are tentatively identified.
*	LCS/LCSD or MS/MSD fails RPD criteria.
S	Spike
SC	Subcontracted out to another qualified laboratory
H	Holding time exceeded

Environmental Laboratory, LLC
1606 E Brazos Suite D Victoria, Texas 77901 ph. (361) 572-8224

Chain Of Custody Rec

Batch # 57535

TEMP UN-C: 11.1 | Page 1 of 2

THERM ID# 11.1 | TEMP Corr: 10.9

Customer / Report Information

Name: Coleto Creek Power

Attention: Rick Coleman

Address: P.O. Box 8; Fannin, TX 77960

Billing Information

X Check box if Billing is the same as Report Information

Address:

Attention: PO #

Project: CCR Sampling

Comments:

Phone: 361-788-5145 FAX:

EMAIL: richard.coleman@dynegy.com

Sample Information				Matrix	Container			Preservative		Requested Analysis								Completed By laboratory
Client / Field Sample ID	Collected Date	Collected Time	C = Composite G = Grab	DW - Drinking H20 S - Solid WW - Waste H20 SL - Sludge L - Liquid w - Water	TYPE	NUMBER	Size			Metals*	Cl, F*, SO4	pH	TDS	Ra226 & Ra228	Alk:Tot, Carb, BiCarb	Diss Li & Mo		Custody Seals Present Yes ☐ No ☐ Intact Yes ☐ No ☐ LAB Sample Number
Collected By:																		
Blank	7-10-17	1400	G	WW	P	6	1L 500mL 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ _____	☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X		S171911556
mw-4		1126	G	WW	P	6	1L 500mL 250ml	☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ _____	☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X		S17191155B
mw-8		904	G	WW	P	6	1L 500mL 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ _____	☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X		S17191155C
BV-15		1104	G	WW	P	6	1L 500mL 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ _____	☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X		S17191155D
BV-21		1034	G	WW	P	6	1L 500mL 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ _____	☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X		S17191155E
BV-22		947	G	WW	P	6	1L 500mL 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ _____	☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X		S17191155F
Dup 1			G	WW	P	6	1L 500mL 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ _____	☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X		S17191155G

Required Turnaround: ☒ Routine (6-10 Business days) Expedite / Rush: ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business days ☐ 5 Business days ☐ Other REMARKS:

Surcharge will apply to RUSH TAT Authorized BY:

Container Type: P=Plastic, G=Glass, V=Voa, O=Other Carrier ID :

Relinquished By:	Date: 7-10-17	Time: 1500	Received By:	Date: 7-10-17	Time: 1500		
Relinquished By:	Date:	Time:	Received By:	Date:	Time:		
Relinquished By	Date:	Time:	Received By:	Date:	Time:		

FLuoride: MAL 0.25 mg/L Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Mg,K,Na, & Hg

B Environmental Laboratory, LLC
1606 E Brazos Suite D Victoria, Texas 77901 ph. (361) 572-8224

Chain Of Custody Rec

Batch # 57535 | TEMP UN-C: 11.1 | Page 2 of 2

X Check box if Billing is the same as Report Information | THERM ID# 3 | TEMP Corr: 10.9

Customer / Report Information	Billing Information		
Name: Coleto Creek Power	Address:	Phone: 361-788-5145	FAX:
Attention: Rick Coleman	Attention: PO #	EMAIL: richard.coleman@dynegy.com	
Address: P.O. Box 8; Fannin, TX 77960	Project: CCR Sampling Comments:	Requested Analysis	Completed By laboratory

Sample Information — Collected By:

Matrix: DW - Drinking H20, S - Solid, WW - Waste H20, SL - Sludge, L - Liquid, w - Water. G = Grab, C = Composite

Custody Seals Present: Yes ☐ No ☐ — Intact: Yes ☐ No ☐

Client / Field Sample ID	Collected Date	Collected Time	G/C	Matrix	Type	Number	Size	Preservative	Metals*	Cl, F*, SO4	pH	TDS	Ra226 & Ra228	Alk:Tot, Carb, BiCarb	Diss Li & Mo			LAB Sample Number
BV-22 MS	7-10-17	947	G	WW	P	6	1L, 500mL, 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X			S17191155F MS
BV-22 MSD	↓	947	G	WW	P	6	1L, 500mL, 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X			S17191155F MSD
			G	WW	P	6	1L, 500mL, 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X			
			G	WW	P	6	1L, 500mL, 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X			
			G	WW	P	6	1L, 500mL, 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X			
			G	WW	P	6	1L, 500mL, 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X			
			G	WW	P	6	1L, 500mL, 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X			

Required Turnaround: ☒ Routine (6-10 Business days) Expedite / Rush: ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business days ☐ 5 Business days ☐ Other ________ REMARKS:

Surcharge will apply to RUSH TAT, Authorized BY: | Container Type: P=Plastic, G=Glass, V=Voa, O=Other | Carrier ID :

Relinquished By:	Date:	Time:	Received By:	Date:	Time:
[signature]	7-10-17	1500	[signature]	7-10-17	1500
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By	Date:	Time:	Received By:	Date:	Time:

FLuoride: MAL 0.25 mg/L Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Mg,K,Na, & Hg

BatchNo: 57623

SAMPLE REPORT

T104704328-17-14

Business

Coleto Creek Power - R Coleman
PO Box 8
Fannin TX 77960
Att: Rick Coleman

Laboratory

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901
ph. 361-572-8224

Reference Information

Project: CCR Sampling
Printed: Wednesday, August 16, 2017

Re: Coleto Creek Power - R Coleman

Dear: Rick Coleman

Attached are the results for sample(s) received on 7/11/2017

The analytical results relate only to the samples tested.
All supporting quality data meets the requirements of NELAC unless noted in the case narrative section of the report.

This report contains 47 pages (including the cover page)

If you have any questions concerning this report, please do not hesitate to call (361) 572-8224 or Fax us at (361) 572-4115

Respectfully Submitted,

Kevin Baros

Laboratory Director

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57623 **Page 2 of 47**

Batch No: 57623

Sample Receipt Checklist

Date Received: 7/11/2017

Project	CCR Sampling	Received By:	Vahrenkamp

Login completed by: Vahrenkamp (Signature) 7/11/2017 (LoginDate:)

Carrier Name: Walk In

Shipping container/cooler in good condition?	☑ YES	☐ NO	☐ Not Present
Custody seals intact on shipping container/cooler?	☐ YES	☐ NO	☑ Not Present
Custody seals intact on sample bottles?	☐ YES	☐ NO	☑ Not Present
Chain of Custody present?	☑ YES	☐ NO	
Chain of Custody signed when relinquished and received	☑ YES	☐ NO	
Chain of Custody agrees with sample labels?	☑ YES	☐ NO	
Samples in proper container/bottles?	☑ YES	☐ NO	
Sample containers intact?	☑ YES	☐ NO	
Sufficient sample volume for indicated tests?	☑ YES	☐ NO	
All samples received within holding times?	☑ YES	☐ NO	
Container/Temp Blank - temperature in compliance?	☑ YES	☐ NO	>0 <6 °C On Ice
Water - VOA vials have zero headspace? Bubble < 6mm?	☐ YES	☐ NO	☑ No VOA Vials submitted
Water - pH acceptable upon receipt?	☑ YES	☐ NO	☐ Not Applicable

*TEMP 2.1/1.9 | pH Adjusted? No | Checked By L. Vahrenkamp

Any No and/or N/A (not applicable) response must be detailed in the comments section below.

Client contacted		PersonContacted	
Contacted by:		Date Contacted:	

Regarding:

Comments:
Therm #3. HNO3 Lot # 2-42-12. pH Paper Lot # 2-25-6.

Corrective Action:

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57623

Sample Report Information

Sample ID:	S171921623	Client ID:	PS-3	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: PS 3
Notes:

Batch No: 57623
Sampled: 7/11/2017 9:07 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	48	mg/L	EPA 300	K Baros	7/12/2017 21:00	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	168	mg/L	SM 2320 B		7/13/2017 14:08	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/13/2017 14:08	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	168	mg/L	SM 2320 B		7/13/2017 14:08	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.89	mg/L	EPA 300	K Baros	7/12/2017 21:00	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.31	SU	SM 4500-H+B	P Ryan	7/11/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	313	mg/L	SM2540C	C Watts	7/19/2017 16:15	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/18/2017 14:23					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	30	mg/L	EPA 300	K Baros	7/12/2017 21:00	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/11/2017 8:03					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57623

Sample Report Information

Sample ID:	S17192162A	Client ID:	MW-11	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #11
Notes:

Batch No: 57623
Sampled: 7/11/2017 8:50 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	44	mg/L	EPA 300	K Baros	7/12/2017 14:01	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	146	mg/L	SM 2320 B		7/13/2017 14:12	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/13/2017 14:12	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	146	mg/L	SM 2320 B		7/13/2017 14:12	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	1	mg/L	EPA 300	K Baros	7/12/2017 14:01	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.36	SU	SM 4500-H+B	P Ryan	7/11/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	603	mg/L	SM2540C	C Watts	7/19/2017 8:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/18/2017 14:25					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	42	mg/L	EPA 300	K Baros	7/12/2017 14:01	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/11/2017 8:03					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57623

Sample Report Information

Sample ID:	S17192162B	Client ID:	MW-9	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #9
Notes:

Batch No: 57623
Sampled: 7/11/2017 10:47 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	64	mg/L	EPA 300	K Baros	7/12/2017 14:39	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	134	mg/L	SM 2320 B		7/13/2017 14:16	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/13/2017 14:16	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	134	mg/L	SM 2320 B		7/13/2017 14:16	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	1.3	mg/L	EPA 300	K Baros	7/12/2017 14:39	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.47	SU	SM 4500-H+B	P Ryan	7/11/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	927	mg/L	SM2540C	C Watts	7/19/2017 8:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/18/2017 14:27					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	60	mg/L	EPA 300	K Baros	7/12/2017 14:39	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/11/2017 8:03					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57623

Sample Report Information

Sample ID:	S17192162C	Client ID:	MW-9A	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW 9A
Notes:

Batch No: 57623
Sampled: 7/11/2017 10:09 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	61	mg/L	EPA 300	K Baros	7/12/2017 15:17	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	135	mg/L	SM 2320 B		7/13/2017 14:20	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/13/2017 14:20	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	135	mg/L	SM 2320 B		7/13/2017 14:20	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	1.3	mg/L	EPA 300	K Baros	7/12/2017 15:17	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.39	SU	SM 4500-H+B	P Ryan	7/11/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	860	mg/L	SM2540C	C Watts	7/19/2017 8:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/18/2017 14:29					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	62	mg/L	EPA 300	K Baros	7/12/2017 15:17	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/11/2017 8:03					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57623

Sample Report Information

Sample ID:	S17192162D	Client ID:	MW-10	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #10
Notes:

Batch No: 57623
Sampled: 7/11/2017 11:21 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	76	mg/L	EPA 300	K Baros	7/12/2017 15:55	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	227	mg/L	SM 2320 B		7/13/2017 14:27	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/13/2017 14:27	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	227	mg/L	SM 2320 B		7/13/2017 14:27	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.84	mg/L	EPA 300	K Baros	7/12/2017 15:55	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.31	SU	SM 4500-H+B	P Ryan	7/11/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	617	mg/L	SM2540C	C Watts	7/19/2017 8:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/18/2017 13:42					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	88	mg/L	EPA 300	K Baros	7/12/2017 15:55	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/11/2017 8:03					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57623

Sample Report Information

Sample ID:	S17192162E	Client ID:	MW-10A	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW 10A
Notes:

Batch No: 57623
Sampled: 7/11/2017 2:54 PM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	349	mg/L	EPA 300	K Baros	7/12/2017 19:06	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	329	mg/L	SM 2320 B		7/13/2017 14:45	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/13/2017 14:45	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	329	mg/L	SM 2320 B		7/13/2017 14:45	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.46	mg/L	EPA 300	K Baros	7/12/2017 19:06	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	6.85	SU	SM 4500-H+B	P Ryan	7/11/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	720	mg/L	SM2540C	C Watts	7/19/2017 8:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/18/2017 14:31					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	86	mg/L	EPA 300	K Baros	7/12/2017 19:06	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/11/2017 8:03					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57623

Sample Report Information

Sample ID:	S17192162F	Client ID:	MW-5	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #5
Notes:

Batch No: 57623
Sampled: 7/11/2017 1:16 PM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	138	mg/L	EPA 300	K Baros	7/12/2017 19:44	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	288	mg/L	SM 2320 B		7/13/2017 14:56	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/13/2017 14:56	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	288	mg/L	SM 2320 B		7/13/2017 14:56	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.52	mg/L	EPA 300	K Baros	7/12/2017 19:44	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	6.99	SU	SM 4500-H+B	P Ryan	7/11/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	797	mg/L	SM2540C	C Watts	7/19/2017 16:15	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/18/2017 14:33					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	184	mg/L	EPA 300	K Baros	7/12/2017 19:44	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/11/2017 8:03					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57623

Sample Report Information

Sample ID:	S17192162G	Client ID:	Dup 2	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: Dup
Notes:

Batch No: 57623
Sampled: 7/11/2017 12:00 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	43	mg/L	EPA 300	K Baros	7/12/2017 20:22	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	143	mg/L	SM 2320 B		7/13/2017 15:00	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/13/2017 15:00	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	143	mg/L	SM 2320 B		7/13/2017 15:00	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	1	mg/L	EPA 300	K Baros	7/12/2017 20:22	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.66	SU	SM 4500-H+B	P Ryan	7/11/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	320	mg/L	SM2540C	C Watts	7/19/2017 16:15	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/18/2017 14:35					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	42	mg/L	EPA 300	K Baros	7/12/2017 20:22	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/14/2017 8:21					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57623

QA Summary Report

Parameter	ID	Result	Ref Value	Amt Added	LOQ	Qualifer	Control	Flag	Comments
.Method Blank									
.- Chloride, IC	Q172041251	<1mg/L	0		1		1		Blank Acceptable.
7/12/2017 11:28									
Fluoride, IC	Q172041251	<0.25mg/L	0		0.25		0.25		Blank Acceptable.
7/12/2017 11:28									
Solids, Total Dissolved	Q172051409	<25mg/L	0		10		25		Blank Acceptable.
7/19/2017 16:15									
Solids, Total Dissolved	Q172010929	<25mg/L	0		10		25		Blank Acceptable.
7/19/2017 8:00									
Sulfate, IC	Q172041251	<1mg/L	0		1		1		Blank Acceptable.
7/12/2017 11:28									
Duplicate									
pH (Standard Units)	Q171921715	7.32SU	7.31		2	0.1%	20		Duplicate RPD Acceptable.
7/11/2017 16:45									
Solids, Total Dissolved	Q172010931	4150mg/L	4110		10	1.0%	20		Duplicate RPD Acceptable.
7/19/2017 8:00									
Solids, Total Dissolved	Q172051411	547mg/L	537		10	1.8%	20		Duplicate RPD Acceptable.
7/19/2017 16:15									
Laboratory Control Standard									
.- Chloride, IC	Q172041253	24.89mg/L	25		1	99.6%	80 - 120		Standard Recovery Acceptable.
7/12/2017 12:07						0.4%	20		Standard RPD Acceptable.
Fluoride, IC	Q172041253	1.94mg/L	2		0.25	97.0%	80 - 120		Standard Recovery Acceptable.
7/12/2017 12:07						3.0%	20		Standard RPD Acceptable.
pH (Standard Units)	Q171921714	7.02SU	7		2	100.3%	80 - 120		Standard Recovery Acceptable.
7/11/2017 16:45						0.3%	20		Standard RPD Acceptable.
Sulfate, IC	Q172041253	24.95mg/L	25		1	99.8%	80 - 120		Standard Recovery Acceptable.
7/12/2017 12:07						0.2%	20		Standard RPD Acceptable.
Matrix Spike									
.- Chloride, IC	Q172041254	92.7mg/L	93.4	25	1	97.2%	80 - 120		Spike Recovery Acceptable.
7/12/2017 16:33						0.8%	20		Spike RPD Acceptable.
Fluoride, IC	Q172041254	2.62mg/L	2.76	2	0.25	93.0%	80 - 120		Spike Recovery Acceptable.
7/12/2017 16:33						5.2%	20		Spike RPD Acceptable.
Sulfate, IC	Q172041254	103.6mg/L	104.7	25	1	95.6%	70 - 130		Spike Recovery Acceptable.
7/12/2017 16:33						1.1%	20		Spike RPD Acceptable.
Matrix Spike Dup									
.- Chloride, IC	Q17204125A	91.9mg/L	93.4	25	1	94.0%	80 - 120		Spike Recovery Acceptable.
7/12/2017 17:11						1.6%	20		Spike RPD Acceptable.
Fluoride, IC	Q17204125A	2.63mg/L	2.76	2	0.25	93.5%	80 - 120		Spike Recovery Acceptable.
7/12/2017 17:11						4.8%	20		Spike RPD Acceptable.
Sulfate, IC	Q17204125A	102.5mg/L	104.7	25	1	91.2%	70 - 130		Spike Recovery Acceptable.
7/12/2017 17:11						2.1%	20		Spike RPD Acceptable.

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57623

Flag and Qualifier Legend

Negative - Result Detected	***MDL = Method Detection Limit***	***DF = Dilution Factor***
Caution - Problem Detected	*LOQ = Limit of Quantitation*	***j = Analyte detected between MDL and LOQ***
Warning - Null Value	***S = surrogate standard out of limit***	***H = sample out of hold time***

MS, MSD, RPD- Failure may occur due to matrix interference, data released per QA plan

Wednesday, August 16, 2017 **B Environmental - LDMS QA Report Summary**

Note: THANK YOU!

DHL Analytical, Inc. **Date:** *24-Jul-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Lab Order: 1707095

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition and Standard Methods.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives except where noted in the following. For Total Metals Analysis, the recoveries of Calcium and Boron for the Matrix Spike and Matrix Spike Duplicate (1707095-05 MS/MSD) were outside of the method control limits. These are flagged accordingly in the QC Summary Report. These analytes were within method control limits in the associated LCS. No further corrective action was taken.

For Total/Dissolved Metals Analysis, the results of Dissolved Lithium/Molybdenum for all of the samples were slightly higher than the results of Total Lithium/Molybdenum. The results were within acceptable analytical variation limits. No further corrective action was taken.

DHL Analytical, Inc.

Date: *24-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	PS-3
Project:	Coleto Creek Power	**Lab ID:**	1707095-01
Project No:	CCR Sampling (57623)	**Alternate ID:**	S171921623
Lab Order:	1707095	**Collection Date:**	07/11/17 09:07 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	9.42	5.00	10.0	J	µg/L	1	07/18/17 11:59 AM
Dissolved Molybdenum	4.69	2.00	5.00	J	µg/L	1	07/18/17 11:59 AM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<2.50	0.800	2.50		µg/L	1	07/18/17 02:23 PM
Arsenic	8.75	2.00	5.00		µg/L	1	07/18/17 02:23 PM
Barium	126	3.00	10.0		µg/L	1	07/18/17 02:23 PM
Beryllium	<1.00	0.300	1.00		µg/L	1	07/18/17 02:23 PM
Boron	1730	100	300		µg/L	10	07/19/17 02:43 PM
Cadmium	<1.00	0.300	1.00		µg/L	1	07/18/17 02:23 PM
Calcium	48100	1000	3000		µg/L	10	07/19/17 02:43 PM
Chromium	2.88	2.00	5.00	J	µg/L	1	07/18/17 02:23 PM
Cobalt	<5.00	3.00	5.00		µg/L	1	07/18/17 02:23 PM
Lead	<1.00	0.300	1.00		µg/L	1	07/18/17 02:23 PM
Lithium	7.92	5.00	10.0	J	µg/L	1	07/18/17 02:23 PM
Magnesium	3510	100	300		µg/L	1	07/18/17 02:23 PM
Molybdenum	4.65	2.00	5.00	J	µg/L	1	07/18/17 02:23 PM
Potassium	2250	100	300		µg/L	1	07/18/17 02:23 PM
Selenium	<5.00	2.00	5.00		µg/L	1	07/18/17 02:23 PM
Sodium	67900	1000	3000		µg/L	10	07/19/17 02:43 PM
Thallium	<1.50	0.500	1.50		µg/L	1	07/18/17 02:23 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.200	0.0800	0.200		µg/L	1	07/24/17 10:06 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	168	10.0	20.0		mg/L @ pH 4.51	1	07/13/17 02:08 PM
Alkalinity, Carbonate (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.51	1	07/13/17 02:08 PM
Alkalinity, Hydroxide (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.51	1	07/13/17 02:08 PM
Alkalinity, Total (As CaCO3)	168	20.0	20.0		mg/L @ pH 4.51	1	07/13/17 02:08 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *24-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-11
Project:	Coleto Creek Power	**Lab ID:**	1707095-02
Project No:	CCR Sampling (57623)	**Alternate ID:**	S17192162A
Lab Order:	1707095	**Collection Date:**	07/11/17 08:50 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	13.1	5.00	10.0		µg/L	1	07/18/17 12:01 PM
Dissolved Molybdenum	7.86	2.00	5.00		µg/L	1	07/18/17 12:01 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<2.50	0.800	2.50		µg/L	1	07/18/17 02:25 PM
Arsenic	21.2	2.00	5.00		µg/L	1	07/18/17 02:25 PM
Barium	72.5	3.00	10.0		µg/L	1	07/18/17 02:25 PM
Beryllium	<1.00	0.300	1.00		µg/L	1	07/18/17 02:25 PM
Boron	1230	100	300		µg/L	10	07/19/17 02:45 PM
Cadmium	<1.00	0.300	1.00		µg/L	1	07/18/17 02:25 PM
Calcium	44700	1000	3000		µg/L	10	07/19/17 02:45 PM
Chromium	2.29	2.00	5.00	J	µg/L	1	07/18/17 02:25 PM
Cobalt	<5.00	3.00	5.00		µg/L	1	07/18/17 02:25 PM
Lead	0.827	0.300	1.00	J	µg/L	1	07/18/17 02:25 PM
Lithium	12.0	5.00	10.0		µg/L	1	07/18/17 02:25 PM
Magnesium	3540	100	300		µg/L	1	07/18/17 02:25 PM
Molybdenum	7.65	2.00	5.00		µg/L	1	07/18/17 02:25 PM
Potassium	1530	100	300		µg/L	1	07/18/17 02:25 PM
Selenium	<5.00	2.00	5.00		µg/L	1	07/18/17 02:25 PM
Sodium	62000	1000	3000		µg/L	10	07/19/17 02:45 PM
Thallium	<1.50	0.500	1.50		µg/L	1	07/18/17 02:25 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.200	0.0800	0.200		µg/L	1	07/24/17 10:08 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	146	10.0	20.0		mg/L @ pH 4.48	1	07/13/17 02:12 PM
Alkalinity, Carbonate (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.48	1	07/13/17 02:12 PM
Alkalinity, Hydroxide (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.48	1	07/13/17 02:12 PM
Alkalinity, Total (As CaCO3)	146	20.0	20.0		mg/L @ pH 4.48	1	07/13/17 02:12 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *24-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-9
Project:	Coleto Creek Power	**Lab ID:**	1707095-03
Project No:	CCR Sampling (57623)	**Alternate ID:**	S17192162B
Lab Order:	1707095	**Collection Date:**	07/11/17 10:47 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	5.60	5.00	10.0	J	µg/L	1	07/18/17 12:03 PM
Dissolved Molybdenum	110	2.00	5.00		µg/L	1	07/18/17 12:03 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<2.50	0.800	2.50		µg/L	1	07/18/17 02:27 PM
Arsenic	10.5	2.00	5.00		µg/L	1	07/18/17 02:27 PM
Barium	103	3.00	10.0		µg/L	1	07/18/17 02:27 PM
Beryllium	<1.00	0.300	1.00		µg/L	1	07/18/17 02:27 PM
Boron	3350	100	300		µg/L	10	07/19/17 02:47 PM
Cadmium	<1.00	0.300	1.00		µg/L	1	07/18/17 02:27 PM
Calcium	52100	1000	3000		µg/L	10	07/19/17 02:47 PM
Chromium	5.66	2.00	5.00		µg/L	1	07/18/17 02:27 PM
Cobalt	3.44	3.00	5.00	J	µg/L	1	07/18/17 02:27 PM
Lead	1.24	0.300	1.00		µg/L	1	07/18/17 02:27 PM
Lithium	5.77	5.00	10.0	J	µg/L	1	07/18/17 02:27 PM
Magnesium	6840	100	300		µg/L	1	07/18/17 02:27 PM
Molybdenum	105	2.00	5.00		µg/L	1	07/18/17 02:27 PM
Potassium	1180	100	300		µg/L	1	07/18/17 02:27 PM
Selenium	<5.00	2.00	5.00		µg/L	1	07/18/17 02:27 PM
Sodium	61100	1000	3000		µg/L	10	07/19/17 02:47 PM
Thallium	<1.50	0.500	1.50		µg/L	1	07/18/17 02:27 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.200	0.0800	0.200		µg/L	1	07/24/17 10:10 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	134	10.0	20.0		mg/L @ pH 4.48	1	07/13/17 02:16 PM
Alkalinity, Carbonate (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.48	1	07/13/17 02:16 PM
Alkalinity, Hydroxide (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.48	1	07/13/17 02:16 PM
Alkalinity, Total (As CaCO3)	134	20.0	20.0		mg/L @ pH 4.48	1	07/13/17 02:16 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
	C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
	E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
	RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *24-Jul-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR Sampling (57623)
Lab Order: 1707095

Client Sample ID: MW-9A
Lab ID: 1707095-04
Alternate ID: S17192162C
Collection Date: 07/11/17 10:09 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	6.19	5.00	10.0	J	µg/L	1	07/18/17 12:05 PM
Dissolved Molybdenum	72.4	2.00	5.00		µg/L	1	07/18/17 12:05 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<2.50	0.800	2.50		µg/L	1	07/18/17 02:29 PM
Arsenic	12.4	2.00	5.00		µg/L	1	07/18/17 02:29 PM
Barium	158	3.00	10.0		µg/L	1	07/18/17 02:29 PM
Beryllium	<1.00	0.300	1.00		µg/L	1	07/18/17 02:29 PM
Boron	3080	100	300		µg/L	10	07/19/17 02:49 PM
Cadmium	<1.00	0.300	1.00		µg/L	1	07/18/17 02:29 PM
Calcium	77300	1000	3000		µg/L	10	07/19/17 02:49 PM
Chromium	21.7	2.00	5.00		µg/L	1	07/18/17 02:29 PM
Cobalt	5.13	3.00	5.00		µg/L	1	07/18/17 02:29 PM
Lead	4.84	0.300	1.00		µg/L	1	07/18/17 02:29 PM
Lithium	7.54	5.00	10.0	J	µg/L	1	07/18/17 02:29 PM
Magnesium	9240	100	300		µg/L	1	07/18/17 02:29 PM
Molybdenum	66.4	2.00	5.00		µg/L	1	07/18/17 02:29 PM
Potassium	1430	100	300		µg/L	1	07/18/17 02:29 PM
Selenium	<5.00	2.00	5.00		µg/L	1	07/18/17 02:29 PM
Sodium	62700	1000	3000		µg/L	10	07/19/17 02:49 PM
Thallium	<1.50	0.500	1.50		µg/L	1	07/18/17 02:29 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.200	0.0800	0.200		µg/L	1	07/24/17 10:13 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	135	10.0	20.0		mg/L @ pH 4.49	1	07/13/17 02:20 PM
Alkalinity, Carbonate (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.49	1	07/13/17 02:20 PM
Alkalinity, Hydroxide (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.49	1	07/13/17 02:20 PM
Alkalinity, Total (As CaCO3)	135	20.0	20.0		mg/L @ pH 4.49	1	07/13/17 02:20 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *24-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-10
Project:	Coleto Creek Power	**Lab ID:**	1707095-05
Project No:	CCR Sampling (57623)	**Alternate ID:**	S17192162D
Lab Order:	1707095	**Collection Date:**	07/11/17 11:21 AM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	12.9	5.00	10.0		µg/L	1	07/20/17 01:19 PM
Dissolved Molybdenum	124	2.00	5.00		µg/L	1	07/20/17 01:19 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<2.50	0.800	2.50		µg/L	1	07/18/17 01:42 PM
Arsenic	14.9	2.00	5.00		µg/L	1	07/18/17 01:42 PM
Barium	50.8	3.00	10.0		µg/L	1	07/18/17 01:42 PM
Beryllium	<1.00	0.300	1.00		µg/L	1	07/18/17 01:42 PM
Boron	7990	200	600		µg/L	20	07/19/17 02:39 PM
Cadmium	<1.00	0.300	1.00		µg/L	1	07/18/17 01:42 PM
Calcium	49500	2000	6000		µg/L	20	07/19/17 02:39 PM
Chromium	4.56	2.00	5.00	J	µg/L	1	07/18/17 01:42 PM
Cobalt	<5.00	3.00	5.00		µg/L	1	07/18/17 01:42 PM
Lead	0.354	0.300	1.00	J	µg/L	1	07/18/17 01:42 PM
Lithium	11.9	5.00	10.0		µg/L	1	07/18/17 01:42 PM
Magnesium	8700	100	300		µg/L	1	07/18/17 01:42 PM
Molybdenum	114	2.00	5.00		µg/L	1	07/18/17 01:42 PM
Potassium	848	100	300		µg/L	1	07/18/17 01:42 PM
Selenium	<5.00	2.00	5.00		µg/L	1	07/18/17 01:42 PM
Sodium	127000	2000	6000		µg/L	20	07/19/17 02:39 PM
Thallium	<1.50	0.500	1.50		µg/L	1	07/18/17 01:42 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.200	0.0800	0.200		µg/L	1	07/24/17 10:15 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	227	10.0	20.0		mg/L @ pH 4.51	1	07/13/17 02:27 PM
Alkalinity, Carbonate (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.51	1	07/13/17 02:27 PM
Alkalinity, Hydroxide (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.51	1	07/13/17 02:27 PM
Alkalinity, Total (As CaCO3)	227	20.0	20.0		mg/L @ pH 4.51	1	07/13/17 02:27 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *24-Jul-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR Sampling (57623)
Lab Order: 1707095

Client Sample ID: NW-10A
Lab ID: 1707095-06
Alternate ID: S17192162E
Collection Date: 07/11/17 02:54 PM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	24.1	5.00	10.0		µg/L	1	07/18/17 12:07 PM
Dissolved Molybdenum	6.04	2.00	5.00		µg/L	1	07/18/17 12:07 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<2.50	0.800	2.50		µg/L	1	07/18/17 02:31 PM
Arsenic	5.26	2.00	5.00		µg/L	1	07/18/17 02:31 PM
Barium	100	3.00	10.0		µg/L	1	07/18/17 02:31 PM
Beryllium	<1.00	0.300	1.00		µg/L	1	07/18/17 02:31 PM
Boron	712	100	300		µg/L	10	07/19/17 02:51 PM
Cadmium	<1.00	0.300	1.00		µg/L	1	07/18/17 02:31 PM
Calcium	170000	1000	3000		µg/L	10	07/19/17 02:51 PM
Chromium	10.8	2.00	5.00		µg/L	1	07/18/17 02:31 PM
Cobalt	<5.00	3.00	5.00		µg/L	1	07/18/17 02:31 PM
Lead	0.431	0.300	1.00	J	µg/L	1	07/18/17 02:31 PM
Lithium	22.0	5.00	10.0		µg/L	1	07/18/17 02:31 PM
Magnesium	29100	1000	3000		µg/L	10	07/19/17 02:51 PM
Molybdenum	6.67	2.00	5.00		µg/L	1	07/18/17 02:31 PM
Potassium	1780	100	300		µg/L	1	07/18/17 02:31 PM
Selenium	2.22	2.00	5.00	J	µg/L	1	07/18/17 02:31 PM
Sodium	167000	1000	3000		µg/L	10	07/19/17 02:51 PM
Thallium	<1.50	0.500	1.50		µg/L	1	07/18/17 02:31 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.200	0.0800	0.200		µg/L	1	07/24/17 10:26 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	329	10.0	20.0		mg/L @ pH 4.52	1	07/13/17 02:45 PM
Alkalinity, Carbonate (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.52	1	07/13/17 02:45 PM
Alkalinity, Hydroxide (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.52	1	07/13/17 02:45 PM
Alkalinity, Total (As CaCO3)	329	20.0	20.0		mg/L @ pH 4.52	1	07/13/17 02:45 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *24-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-5
Project:	Coleto Creek Power	**Lab ID:**	1707095-07
Project No:	CCR Sampling (57623)	**Alternate ID:**	S17192162F
Lab Order:	1707095	**Collection Date:**	07/11/17 01:16 PM
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	19.4	5.00	10.0		µg/L	1	07/20/17 01:59 PM
Dissolved Molybdenum	<5.00	2.00	5.00		µg/L	1	07/20/17 01:59 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<2.50	0.800	2.50		µg/L	1	07/18/17 02:33 PM
Arsenic	9.45	2.00	5.00		µg/L	1	07/18/17 02:33 PM
Barium	71.2	3.00	10.0		µg/L	1	07/18/17 02:33 PM
Beryllium	<1.00	0.300	1.00		µg/L	1	07/18/17 02:33 PM
Boron	111	10.0	30.0		µg/L	1	07/19/17 02:53 PM
Cadmium	<1.00	0.300	1.00		µg/L	1	07/18/17 02:33 PM
Calcium	120000	1000	3000		µg/L	10	07/19/17 02:55 PM
Chromium	<5.00	2.00	5.00		µg/L	1	07/18/17 02:33 PM
Cobalt	<5.00	3.00	5.00		µg/L	1	07/18/17 02:33 PM
Lead	<1.00	0.300	1.00		µg/L	1	07/18/17 02:33 PM
Lithium	18.3	5.00	10.0		µg/L	1	07/18/17 02:33 PM
Magnesium	21700	100	300		µg/L	1	07/18/17 02:33 PM
Molybdenum	<5.00	2.00	5.00		µg/L	1	07/18/17 02:33 PM
Potassium	1530	100	300		µg/L	1	07/18/17 02:33 PM
Selenium	<5.00	2.00	5.00		µg/L	1	07/18/17 02:33 PM
Sodium	128000	1000	3000		µg/L	10	07/19/17 02:55 PM
Thallium	<1.50	0.500	1.50		µg/L	1	07/18/17 02:33 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.200	0.0800	0.200		µg/L	1	07/24/17 10:28 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	288	10.0	20.0		mg/L @ pH 4.53	1	07/13/17 02:56 PM
Alkalinity, Carbonate (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.53	1	07/13/17 02:56 PM
Alkalinity, Hydroxide (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.53	1	07/13/17 02:56 PM
Alkalinity, Total (As CaCO3)	288	20.0	20.0		mg/L @ pH 4.53	1	07/13/17 02:56 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *24-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	Dup 2
Project:	Coleto Creek Power	**Lab ID:**	1707095-08
Project No:	CCR Sampling (57623)	**Alternate ID:**	S17192162G
Lab Order:	1707095	**Collection Date:**	07/11/17
		Matrix:	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	13.8	5.00	10.0		µg/L	1	07/20/17 02:01 PM
Dissolved Molybdenum	8.28	2.00	5.00		µg/L	1	07/20/17 02:01 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	<2.50	0.800	2.50		µg/L	1	07/18/17 02:35 PM
Arsenic	22.2	2.00	5.00		µg/L	1	07/18/17 02:35 PM
Barium	78.7	3.00	10.0		µg/L	1	07/18/17 02:35 PM
Beryllium	<1.00	0.300	1.00		µg/L	1	07/18/17 02:35 PM
Boron	1130	100	300		µg/L	10	07/19/17 02:57 PM
Cadmium	<1.00	0.300	1.00		µg/L	1	07/18/17 02:35 PM
Calcium	50100	1000	3000		µg/L	10	07/19/17 02:57 PM
Chromium	5.69	2.00	5.00		µg/L	1	07/18/17 02:35 PM
Cobalt	<5.00	3.00	5.00		µg/L	1	07/18/17 02:35 PM
Lead	1.46	0.300	1.00		µg/L	1	07/18/17 02:35 PM
Lithium	13.3	5.00	10.0		µg/L	1	07/18/17 02:35 PM
Magnesium	3910	100	300		µg/L	1	07/18/17 02:35 PM
Molybdenum	7.72	2.00	5.00		µg/L	1	07/18/17 02:35 PM
Potassium	1700	100	300		µg/L	1	07/18/17 02:35 PM
Selenium	<5.00	2.00	5.00		µg/L	1	07/18/17 02:35 PM
Sodium	61800	1000	3000		µg/L	10	07/19/17 02:57 PM
Thallium	<1.50	0.500	1.50		µg/L	1	07/18/17 02:35 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.200	0.0800	0.200		µg/L	1	07/24/17 10:31 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	143	10.0	20.0		mg/L @ pH 4.51	1	07/13/17 03:00 PM
Alkalinity, Carbonate (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.51	1	07/13/17 03:00 PM
Alkalinity, Hydroxide (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.51	1	07/13/17 03:00 PM
Alkalinity, Total (As CaCO3)	143	20.0	20.0		mg/L @ pH 4.51	1	07/13/17 03:00 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc. **Date:** *24-Jul-17*

CLIENT: B-Environmental
Work Order: 1707095
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_170724B

The QC data in batch 81523 applies to the following samples: 1707095-01A, 1707095-02A, 1707095-03A, 1707095-04A, 1707095-05A, 1707095-06A, 1707095-07A, 1707095-08A

Sample ID **MB-81523** Batch ID: **81523** TestNo: **SW7470A** Units: **µg/L**
SampType: **MBLK** Run ID: **CETAC2_HG_170724** Analysis Date: **7/24/2017 9:59:29 AM** Prep Date: **7/21/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.200	0.200								

Sample ID **LCS-81523** Batch ID: **81523** TestNo: **SW7470A** Units: **µg/L**
SampType: **LCS** Run ID: **CETAC2_HG_170724** Analysis Date: **7/24/2017 10:01:45 AM** Prep Date: **7/21/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	2.00	0.200	2.000	0	100	85	115			

Sample ID **LCSD-81523** Batch ID: **81523** TestNo: **SW7470A** Units: **µg/L**
SampType: **LCSD** Run ID: **CETAC2_HG_170724** Analysis Date: **7/24/2017 10:04:01 AM** Prep Date: **7/21/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	1.92	0.200	2.000	0	96.0	85	115	4.08	15	

Sample ID **1707095-05A SD** Batch ID: **81523** TestNo: **SW7470A** Units: **µg/L**
SampType: **SD** Run ID: **CETAC2_HG_170724** Analysis Date: **7/24/2017 10:17:38 AM** Prep Date: **7/21/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<1.00	1.00	0	0				0	10	

Sample ID **1707095-05A PDS** Batch ID: **81523** TestNo: **SW7470A** Units: **µg/L**
SampType: **PDS** Run ID: **CETAC2_HG_170724** Analysis Date: **7/24/2017 10:19:54 AM** Prep Date: **7/21/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	2.32	0.200	2.500	0	92.8	85	115			

Sample ID **1707095-05A MS** Batch ID: **81523** TestNo: **SW7470A** Units: **µg/L**
SampType: **MS** Run ID: **CETAC2_HG_170724** Analysis Date: **7/24/2017 10:22:10 AM** Prep Date: **7/21/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	1.97	0.200	2.000	0	98.5	80	120			

Sample ID **1707095-05A MSD** Batch ID: **81523** TestNo: **SW7470A** Units: **µg/L**
SampType: **MSD** Run ID: **CETAC2_HG_170724** Analysis Date: **7/24/2017 10:24:26 AM** Prep Date: **7/21/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	1.90	0.200	2.000	0	95.0	80	120	3.62	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707095
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170718A

The QC data in batch 81435 applies to the following samples: 1707095-01A, 1707095-02A, 1707095-03A, 1707095-04A, 1707095-05A, 1707095-06A, 1707095-07A, 1707095-08A

Sample ID **MB-81435** Batch ID: **81435** TestNo: **SW6020A** Units: **µg/L**
SampType: **MBLK** Run ID: **ICP-MS4_170718A** Analysis Date: **7/18/2017 1:34:00 PM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<2.50	2.50								
Arsenic	<5.00	5.00								
Barium	<10.0	10.0								
Beryllium	<1.00	1.00								
Cadmium	<1.00	1.00								
Calcium	<300	300								
Chromium	<5.00	5.00								
Cobalt	<5.00	5.00								
Lead	<1.00	1.00								
Lithium	<10.0	10.0								
Magnesium	<300	300								
Molybdenum	<5.00	5.00								
Potassium	<300	300								
Selenium	<5.00	5.00								
Thallium	<1.50	1.50								

Sample ID **LCS-81435** Batch ID: **81435** TestNo: **SW6020A** Units: **µg/L**
SampType: **LCS** Run ID: **ICP-MS4_170718A** Analysis Date: **7/18/2017 1:36:00 PM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	194	2.50	200.0	0	97.1	80	120			
Arsenic	202	5.00	200.0	0	101	80	120			
Barium	203	10.0	200.0	0	101	80	120			
Beryllium	193	1.00	200.0	0	96.5	80	120			
Cadmium	197	1.00	200.0	0	98.7	80	120			
Calcium	5230	300	5000	0	105	80	120			
Chromium	204	5.00	200.0	0	102	80	120			
Cobalt	206	5.00	200.0	0	103	80	120			
Lead	198	1.00	200.0	0	99.1	80	120			
Lithium	193	10.0	200.0	0	96.4	80	120			
Magnesium	4940	300	5000	0	98.9	80	120			
Molybdenum	189	5.00	200.0	0	94.4	80	120			
Potassium	5090	300	5000	0	102	80	120			
Selenium	209	5.00	200.0	0	105	80	120			
Thallium	197	1.50	200.0	0	98.7	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707095
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170718A

Sample ID	LCSD-81435	Batch ID:	81435	TestNo:	SW6020A	Units:	µg/L
SampType:	LCSD	Run ID:	ICP-MS4_170718A	Analysis Date:	7/18/2017 1:38:00 PM	Prep Date:	7/17/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	193	2.50	200.0	0	96.7	80	120	0.487	15	
Arsenic	199	5.00	200.0	0	99.6	80	120	1.48	15	
Barium	201	10.0	200.0	0	101	80	120	0.960	15	
Beryllium	189	1.00	200.0	0	94.5	80	120	2.09	15	
Cadmium	197	1.00	200.0	0	98.6	80	120	0.106	15	
Calcium	5200	300	5000	0	104	80	120	0.530	15	
Chromium	203	5.00	200.0	0	101	80	120	0.695	15	
Cobalt	203	5.00	200.0	0	101	80	120	1.57	15	
Lead	196	1.00	200.0	0	98.2	80	120	0.940	15	
Lithium	189	10.0	200.0	0	94.4	80	120	2.07	15	
Magnesium	4910	300	5000	0	98.2	80	120	0.713	15	
Molybdenum	187	5.00	200.0	0	93.3	80	120	1.18	15	
Potassium	5050	300	5000	0	101	80	120	0.636	15	
Selenium	206	5.00	200.0	0	103	80	120	1.46	15	
Thallium	196	1.50	200.0	0	97.8	80	120	0.928	15	

Sample ID	1707095-05A SD	Batch ID:	81435	TestNo:	SW6020A	Units:	µg/L
SampType:	SD	Run ID:	ICP-MS4_170718A	Analysis Date:	7/18/2017 1:44:00 PM	Prep Date:	7/17/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<12.5	12.5	0	0				0	10	
Arsenic	14.7	25.0	0	14.89				1.46	10	
Barium	51.2	50.0	0	50.75				0.973	10	
Beryllium	<5.00	5.00	0	0				0	10	
Cadmium	<5.00	5.00	0	0				0	10	
Chromium	<25.0	25.0	0	4.556				0	10	
Cobalt	<25.0	25.0	0	0				0	10	
Lead	<5.00	5.00	0	0.3540				0	10	
Lithium	<50.0	50.0	0	11.91				0	10	
Magnesium	9100	1500	0	8696				4.49	10	
Molybdenum	116	25.0	0	113.6				2.29	10	
Potassium	866	1500	0	847.5				2.11	10	
Selenium	<25.0	25.0	0	0				0	10	
Thallium	<7.50	7.50	0	0				0	10	

Sample ID	1707095-05A PDS	Batch ID:	81435	TestNo:	SW6020A	Units:	µg/L
SampType:	PDS	Run ID:	ICP-MS4_170718A	Analysis Date:	7/18/2017 2:04:00 PM	Prep Date:	7/17/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	196	2.50	200.0	0	97.9	80	120			
Arsenic	215	5.00	200.0	14.89	100	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707095
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170718A

Sample ID **1707095-05A PDS** Batch ID: **81435** TestNo: **SW6020A** Units: **µg/L**
SampType: **PDS** Run ID: **ICP-MS4_170718A** Analysis Date: **7/18/2017 2:04:00 PM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	250	10.0	200.0	50.75	99.5	80	120			
Beryllium	184	1.00	200.0	0	92.0	80	120			
Cadmium	192	1.00	200.0	0	96.2	80	120			
Chromium	209	5.00	200.0	4.556	102	80	120			
Cobalt	205	5.00	200.0	0	102	80	120			
Lead	196	1.00	200.0	0.3540	98.1	80	120			
Lithium	191	10.0	200.0	11.91	89.6	80	120			
Magnesium	12900	300	5000	8696	83.5	80	120			
Molybdenum	293	5.00	200.0	113.6	89.9	80	120			
Potassium	5720	300	5000	847.5	97.5	80	120			
Selenium	201	5.00	200.0	0	101	80	120			
Thallium	195	1.50	200.0	0	97.4	80	120			

Sample ID **1707095-05A MS** Batch ID: **81435** TestNo: **SW6020A** Units: **µg/L**
SampType: **MS** Run ID: **ICP-MS4_170718A** Analysis Date: **7/18/2017 2:06:00 PM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	196	2.50	200.0	0	97.9	80	120			
Arsenic	218	5.00	200.0	14.89	101	80	120			
Barium	254	10.0	200.0	50.75	102	80	120			
Beryllium	181	1.00	200.0	0	90.3	80	120			
Cadmium	191	1.00	200.0	0	95.7	80	120			
Calcium	57100	300	5000	51820	106	80	120			
Chromium	204	5.00	200.0	4.556	99.6	80	120			
Cobalt	203	5.00	200.0	0	101	80	120			
Lead	196	1.00	200.0	0.3540	97.7	80	120			
Lithium	192	10.0	200.0	11.91	89.8	80	120			
Magnesium	13700	300	5000	8696	100	80	120			
Molybdenum	309	5.00	200.0	113.6	97.5	80	120			
Potassium	5870	300	5000	847.5	100	80	120			
Selenium	209	5.00	200.0	0	104	80	120			
Thallium	195	1.50	200.0	0	97.6	80	120			

Sample ID **1707095-05A MSD** Batch ID: **81435** TestNo: **SW6020A** Units: **µg/L**
SampType: **MSD** Run ID: **ICP-MS4_170718A** Analysis Date: **7/18/2017 2:08:00 PM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	190	2.50	200.0	0	94.9	80	120	3.11	15	
Arsenic	213	5.00	200.0	14.89	99.3	80	120	1.92	15	
Barium	248	10.0	200.0	50.75	98.5	80	120	2.59	15	
Beryllium	175	1.00	200.0	0	87.3	80	120	3.37	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707095
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170718A

Sample ID **1707095-05A MSD** Batch ID: **81435** TestNo: **SW6020A** Units: **µg/L**
SampType: **MSD** Run ID: **ICP-MS4_170718A** Analysis Date: **7/18/2017 2:08:00 PM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	186	1.00	200.0	0	93.2	80	120	2.59	15	
Calcium	55500	300	5000	51820	73.7	80	120	2.83	15	S
Chromium	198	5.00	200.0	4.556	96.5	80	120	3.07	15	
Cobalt	198	5.00	200.0	0	98.8	80	120	2.66	15	
Lead	189	1.00	200.0	0.3540	94.3	80	120	3.59	15	
Lithium	191	10.0	200.0	11.91	89.5	80	120	0.374	15	
Magnesium	13300	300	5000	8696	92.1	80	120	2.94	15	
Molybdenum	300	5.00	200.0	113.6	93.1	80	120	2.89	15	
Potassium	5760	300	5000	847.5	98.2	80	120	1.86	15	
Selenium	198	5.00	200.0	0	98.8	80	120	5.43	15	
Thallium	189	1.50	200.0	0	94.4	80	120	3.43	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707095
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170718A

The QC data in batch 81442 applies to the following samples: 1707095-01B, 1707095-02B, 1707095-03B, 1707095-04B, 1707095-06B

Sample ID	MB-81442	Batch ID:	81442	TestNo:	SW6020A	Units:	µg/L
SampType:	MBLK	Run ID:	ICP-MS4_170718A	Analysis Date:	7/18/2017 11:08:00 AM	Prep Date:	7/17/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<10.0	10.0								
Molybdenum	<5.00	5.00								

Sample ID	LCS-81442	Batch ID:	81442	TestNo:	SW6020A	Units:	µg/L
SampType:	LCS	Run ID:	ICP-MS4_170718A	Analysis Date:	7/18/2017 11:10:00 AM	Prep Date:	7/17/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	202	10.0	200.0	0	101	80	120			
Molybdenum	198	5.00	200.0	0	98.8	80	120			

Sample ID	LCSD-81442	Batch ID:	81442	TestNo:	SW6020A	Units:	µg/L
SampType:	LCSD	Run ID:	ICP-MS4_170718A	Analysis Date:	7/18/2017 11:12:00 AM	Prep Date:	7/17/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	208	10.0	200.0	0	104	80	120	2.64	15	
Molybdenum	199	5.00	200.0	0	99.3	80	120	0.505	15	

Sample ID	1707057-06B SD	Batch ID:	81442	TestNo:	SW6020A	Units:	µg/L
SampType:	SD	Run ID:	ICP-MS4_170718A	Analysis Date:	7/18/2017 11:18:00 AM	Prep Date:	7/17/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<50.0	50.0	0	7.002				0	10	
Molybdenum	<25.0	25.0	0	8.622				0	10	

Sample ID	1707057-06B PDS	Batch ID:	81442	TestNo:	SW6020A	Units:	µg/L
SampType:	PDS	Run ID:	ICP-MS4_170718A	Analysis Date:	7/18/2017 11:37:00 AM	Prep Date:	7/17/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	198	10.0	200.0	7.002	95.3	80	120			
Molybdenum	200	5.00	200.0	8.622	95.9	80	120			

Sample ID	1707057-06B MS	Batch ID:	81442	TestNo:	SW6020A	Units:	µg/L
SampType:	MS	Run ID:	ICP-MS4_170718A	Analysis Date:	7/18/2017 11:39:00 AM	Prep Date:	7/17/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	196	10.0	200.0	7.002	94.5	80	120			
Molybdenum	204	5.00	200.0	8.622	97.6	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707095
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170718A

Sample ID **1707057-06B MSD** Batch ID: **81442** TestNo: **SW6020A** Units: **µg/L**
SampType: **MSD** Run ID: **ICP-MS4_170718A** Analysis Date: **7/18/2017 11:41:00 AM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	199	10.0	200.0	7.002	95.8	80	120	1.36	15	
Molybdenum	204	5.00	200.0	8.622	97.9	80	120	0.288	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707095
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170719C

The QC data in batch 81435 applies to the following samples: 1707095-01A, 1707095-02A, 1707095-03A, 1707095-04A, 1707095-05A, 1707095-06A, 1707095-07A, 1707095-08A

Sample ID **MB-81435** Batch ID: **81435** TestNo: **SW6020A** Units: **µg/L**
SampType: **MBLK** Run ID: **ICP-MS4_170719C** Analysis Date: **7/19/2017 2:31:00 PM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	<30.0	30.0								
Sodium	<300	300								

Sample ID **LCS-81435** Batch ID: **81435** TestNo: **SW6020A** Units: **µg/L**
SampType: **LCS** Run ID: **ICP-MS4_170719C** Analysis Date: **7/19/2017 2:33:00 PM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	200	30.0	200.0	0	100	80	120			
Sodium	5100	300	5000	0	102	80	120			

Sample ID **LCSD-81435** Batch ID: **81435** TestNo: **SW6020A** Units: **µg/L**
SampType: **LCSD** Run ID: **ICP-MS4_170719C** Analysis Date: **7/19/2017 2:35:00 PM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	200	30.0	200.0	0	99.8	80	120	0.376	15	
Sodium	5060	300	5000	0	101	80	120	0.784	15	

Sample ID **1707095-05A SD** Batch ID: **81435** TestNo: **SW6020A** Units: **µg/L**
SampType: **SD** Run ID: **ICP-MS4_170719C** Analysis Date: **7/19/2017 2:41:00 PM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	8710	3000	0	7992				8.55	10	
Calcium	49600	30000	0	49550				0.193	10	
Sodium	129000	30000	0	127400				1.56	10	

Sample ID **1707095-05A PDS** Batch ID: **81435** TestNo: **SW6020A** Units: **µg/L**
SampType: **PDS** Run ID: **ICP-MS4_170719C** Analysis Date: **7/19/2017 2:59:00 PM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	12400	600	4000	7992	110	80	120			
Calcium	145000	6000	100000	49550	95.8	80	120			
Sodium	227000	6000	100000	127400	100	80	120			

Sample ID **1707095-05A MS** Batch ID: **81435** TestNo: **SW6020A** Units: **µg/L**
SampType: **MS** Run ID: **ICP-MS4_170719C** Analysis Date: **7/19/2017 3:01:00 PM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	8420	600	200.0	7992	213	80	120			S
Sodium	134000	6000	5000	127400	135	80	120			S

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707095
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170719C

Sample ID **1707095-05A MSD** Batch ID: **81435** TestNo: **SW6020A** Units: **µg/L**
SampType: **MSD** Run ID: **ICP-MS4_170719C** Analysis Date: **7/19/2017 3:03:00 PM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	8330	600	200.0	7992	168	80	120	1.09	15	S
Sodium	131000	6000	5000	127400	80.1	80	120	2.07	15	

Qualifiers:				
	B	Analyte detected in the associated Method Blank	DF	Dilution Factor
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
	RL	Reporting Limit	S	Spike Recovery outside control limits
	J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707095
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170720C

The QC data in batch 81443 applies to the following samples: 1707095-05B, 1707095-07B, 1707095-08B

Sample ID **MB-81443** Batch ID: **81443** TestNo: **SW6020A** Units: **µg/L**
SampType: **MBLK** Run ID: **ICP-MS4_170720C** Analysis Date: **7/20/2017 1:11:00 PM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<10.0	10.0								
Molybdenum	<5.00	5.00								

Sample ID **LCS-81443** Batch ID: **81443** TestNo: **SW6020A** Units: **µg/L**
SampType: **LCS** Run ID: **ICP-MS4_170720C** Analysis Date: **7/20/2017 1:13:00 PM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	207	10.0	200.0	0	103	80	120			
Molybdenum	196	5.00	200.0	0	98.2	80	120			

Sample ID **LCSD-81443** Batch ID: **81443** TestNo: **SW6020A** Units: **µg/L**
SampType: **LCSD** Run ID: **ICP-MS4_170720C** Analysis Date: **7/20/2017 1:15:00 PM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	210	10.0	200.0	0	105	80	120	1.41	15	
Molybdenum	200	5.00	200.0	0	100	80	120	1.78	15	

Sample ID **1707095-05B SD** Batch ID: **81443** TestNo: **SW6020A** Units: **µg/L**
SampType: **SD** Run ID: **ICP-MS4_170720C** Analysis Date: **7/20/2017 1:21:00 PM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<50.0	50.0	0	12.92				0	10	
Molybdenum	124	25.0	0	124.2				0.034	10	

Sample ID **1707095-05B PDS** Batch ID: **81443** TestNo: **SW6020A** Units: **µg/L**
SampType: **PDS** Run ID: **ICP-MS4_170720C** Analysis Date: **7/20/2017 1:41:00 PM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	211	10.0	200.0	12.92	99.1	80	120			
Molybdenum	315	5.00	200.0	124.2	95.3	80	120			

Sample ID **1707095-05B MS** Batch ID: **81443** TestNo: **SW6020A** Units: **µg/L**
SampType: **MS** Run ID: **ICP-MS4_170720C** Analysis Date: **7/20/2017 1:42:00 PM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Lithium	208	10.0	200.0	12.92	97.3	80	120			
Dissolved Molybdenum	324	5.00	200.0	124.2	99.9	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707095
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170720C

Sample ID **1707095-05B MSD** Batch ID: **81443** TestNo: **SW6020A** Units: **µg/L**
SampType: **MSD** Run ID: **ICP-MS4_170720C** Analysis Date: **7/20/2017 1:44:00 PM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Lithium	208	10.0	200.0	12.92	97.6	80	120	0.236	15	
Dissolved Molybdenum	319	5.00	200.0	124.2	97.5	80	120	1.49	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707095
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_170713B

The QC data in batch 81398 applies to the following samples: 1707095-01C, 1707095-02C, 1707095-03C, 1707095-04C, 1707095-05C, 1707095-06C, 1707095-07C, 1707095-08C

Sample ID **MB-81398** Batch ID: **81398** TestNo: **M2320 B** Units: **mg/L @ pH 4.22**
SampType: **MBLK** Run ID: **TITRATOR_170713B** Analysis Date: **7/13/2017 1:57:00 PM** Prep Date: **7/13/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	<20.0	20.0								
Alkalinity, Carbonate (As CaCO3)	<20.0	20.0								
Alkalinity, Hydroxide (As CaCO3)	<20.0	20.0								
Alkalinity, Total (As CaCO3)	<20.0	20.0								

Sample ID **LCS-81398** Batch ID: **81398** TestNo: **M2320 B** Units: **mg/L @ pH 4.23**
SampType: **LCS** Run ID: **TITRATOR_170713B** Analysis Date: **7/13/2017 2:01:00 PM** Prep Date: **7/13/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	50.0	20.0	50.00	0	100	74	129			

Sample ID **1707095-05C-DUP** Batch ID: **81398** TestNo: **M2320 B** Units: **mg/L @ pH 4.51**
SampType: **DUP** Run ID: **TITRATOR_170713B** Analysis Date: **7/13/2017 2:33:00 PM** Prep Date: **7/13/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	226	20.0	0	226.7				0.486	20	
Alkalinity, Carbonate (As CaCO3)	<20.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<20.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	226	20.0	0	226.7				0.486	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

2609 North River Road, Port Allen, Louisiana 70767
(800) 401-4277 -- FAX (225) 381-2996

ARS International, LLC

Laboratory Analysis Report

ARS1-17-02105

Prepared for:

B-Environmental

Kevin Baros
1606 East Brazos Street
Suite D
Victoria, TX 77901

dbenviro@suddenlinkmail.com; cbenviro@suddenlinkmail.com
swbenviro@suddenlinkmail.com

Phone: 361-572-8224
Fax: 361-572-4115

Project Manager Review

Management Review

Notes: ARS International, LLC assumes no liability for the use or the interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

Contact Person: Questions regarding this analytical report should be addressed to:

Project Manager
ProjectManagers@amrad.com
Phone: 225.381.2991
Fax: 225.381.2996

ANAB ACCREDITED DOD ELAP

LELAP Cert# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-02105
Client Sample ID: S171921623 (Batch 57623)
Sample Collection Date: 07/11/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02105-001
Date Received: 07/14/17
Report Date: 08/14/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.189	0.120	0.142	0.053	NP		pCi/L	ARS-010/EPA 903.0/904.0	08/11/17 8:03	CTRAMEL	104%
Ra-228	-0.579	0.573	1.128	0.523	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/04/17 9:42	CTRAMEL	98%

Project Manager Review

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-02105
Client Sample ID: S17192162A (Batch 57623)
Sample Collection Date: 07/11/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02105-002
Date Received: 07/14/17
Report Date: 08/14/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.105	0.107	0.163	0.063	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/11/17 8:03	CTRAMEL	99%
Ra-228	0.648	0.758	1.255	0.586	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/04/17 9:42	CTRAMEL	97%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-02105
Client Sample ID: S171921628 (Batch 57623)
Sample Collection Date: 07/11/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02105-003
Date Received: 07/14/17
Report Date: 08/14/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.179	0.144	0.210	0.087	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/11/17 8:03	CTRAMEL	93%
Ra-228	0.684	0.808	1.338	0.623	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/04/17 9:42	CTRAMEL	88%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-02105
Client Sample ID: S17192162C (Batch 57623)
Sample Collection Date: 07/11/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02105-004
Date Received: 07/14/17
Report Date: 08/14/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.345	0.189	0.238	0.100	NP		pCi/L	ARS-010/EPA 903.0/904.0	08/11/17 8:03	CTRAMEL	104%
Ra-228	1.086	0.773	1.195	0.556	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/04/17 9:42	CTRAMEL	101%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-02105
Client Sample ID: S17192162D (Batch 57623)
Sample Collection Date: 07/11/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02105-005
Date Received: 07/14/17
Report Date: 08/14/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.494	0.227	0.248	0.102	NP		pCi/L	ARS-010/EPA 903.0/904.0	08/11/17 8:03	CTRAMEL	84%
Ra-228	1.219	0.927	1.450	0.674	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/04/17 9:42	CTRAMEL	83%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-02105
Client Sample ID: S17192162E (Batch 57623)
Sample Collection Date: 07/11/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02105-006
Date Received: 07/14/17
Report Date: 08/14/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.524	0.219	0.202	0.080	NP		pCi/L	ARS-010/EPA 903.0/904.0	08/11/17 8:03	CTRAMEL	88%
Ra-228	1.450	1.146	1.822	0.860	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/04/17 9:42	CTRAMEL	93%

Project Manager Review

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-02105
Client Sample ID: S17192162F (Batch 57623)
Sample Collection Date: 07/11/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02105-007
Date Received: 07/14/17
Report Date: 08/14/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 σ	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.051	0.104	0.189	0.073	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/11/17 8:03	CTRAMEL	84%
Ra-228	0.461	1.319	2.288	1.077	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/04/17 11:44	CTRAMEL	77%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-02106
Client Sample ID: S1719216G (Batch 57623)
Sample Collection Date: 07/11/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02106-001
Date Received: 07/14/17
Report Date: 08/14/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	1.305	0.350	0.194	0.077	NP		pCi/L	ARS-010/EPA 903.0/904.0	08/14/17 8:21	CTRAMEL	108%
Ra-228	1.365	0.697	0.988	0.457	NP		pCi/L	ARS-010/EPA 903.0/904.0	08/07/17 12:00	CTRAMEL	108%

Project Manager Review

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

INTERNATIONAL

QC Results Report

Sample Delivery Group: ARS1-17-02105

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-01609	LCS	RA-226	26.875	4.331	0.102	27.563	N/A	pCi/L	ARS-010/EPA 903	8/11/17 10:03	CT	98	75%-125%
ARS1-B17-01609	LCS	RA-228	37.058	6.196	1.182	39.784	N/A	pCi/L	ARS-010/EPA 904	8/4/17 11:41	CT	93	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-01609	MBL	RA-226	0.084	0.068	0.097	NA	U	pCi/L	ARS-010/EPA 903	8/11/17 10:03	CT
ARS1-B17-01609	MBL	RA-228	0.351	0.390	0.643	NA	U	pCi/L	ARS-010/EPA 904	8/4/17 11:41	CT

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-01609	LCSD	RA-226	26.875	4.331	31.679	5.097	N/A	pCi/L	ARS-010/EPA 903	8/11/17 10:03	CT	0.51	< 1
ARS1-B17-01609	LCSD	RA-228	37.058	6.196	38.894	6.472	N/A	pCi/L	ARS-010/EPA 904	8/4/17 11:41	CT	0.14	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-01609	LCSD	RA-226	26.875	4.331	31.679	5.097	N/A	pCi/L	ARS-010/EPA 903	8/11/17 10:03	CT	0.72	< 3
ARS1-B17-01609	LCSD	RA-228	37.058	6.196	38.894	6.472	N/A	pCi/L	ARS-010/EPA 904	8/4/17 11:41	CT	0.20	< 3

Matrix Spike

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery(%)	MS Acceptance Range
ARS1-B17-01609	MS	Ra-226	60.118	9.663	0.168	55.362	N/A	pCi/L	ARS-010/EPA 903	8/11/17 10:03	CT	109	60%-140%
ARS1-B17-01609	MS	Ra-228	39.080	6.693	1.657	51.265	N/A	pCi/L	ARS-010/EPA 904	8/4/17 11:41	CT	76	60%-140%
ARS1-B17-01609	MSD	Ra-226	56.001	9.023	0.165	54.878	N/A	pCi/L	ARS-010/EPA 903	8/11/17 10:03	CT	102	60%-140%
ARS1-B17-01609	MSD	Ra-228	41.280	7.073	1.687	51.113	N/A	pCi/L	ARS-010/EPA 904	8/4/17 11:41	CT	81	60%-140%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949 NELAP Certificate # E87558

Batch # 57623

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

INTERNATIONAL

QC Results Report

Sample Delivery Group: ARS1-17-02106

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-01622	LCS	RA-226	21.318	3.453	0.115	27.493	N/A	pCi/L	ARS-010/EPA 903	8/14/17 10:20	CT	78	75%-125%
ARS1-B17-01622	LCS	RA-228	34.952	5.821	1.029	39.784	N/A	pCi/L	ARS-010/EPA 904	8/14/17 10:20	CT	88	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-01622	MBL	RA-226	0.092	0.072	0.101	NA	U	pCi/L	ARS-010/EPA 903	8/14/17 10:20	CT
ARS1-B17-01622	MBL	RA-228	-0.121	0.305	0.566	NA	U	pCi/L	ARS-010/EPA 904	8/14/17 10:20	CT

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-01622	LCSD	RA-226	21.318	3.453	27.250	4.397	N/A	pCi/L	ARS-010/EPA 903	8/14/17 10:20	CT	0.76	< 1
ARS1-B17-01622	LCSD	RA-228	34.952	5.821	38.530	6.389	N/A	pCi/L	ARS-010/EPA 904	8/14/17 10:20	CT	0.29	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-01622	LCSD	RA-226	21.318	3.453	27.250	4.397	N/A	pCi/L	ARS-010/EPA 903	8/14/17 10:20	CT	1.06	< 3
ARS1-B17-01622	LCSD	RA-228	34.952	5.821	38.530	6.389	N/A	pCi/L	ARS-010/EPA 904	8/14/17 10:20	CT	0.41	< 3

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

ARS INTERNATIONAL

2609 North River Road • Port Allen, Louisiana 70767

1 (800) 401-4277 • Fax (225) 381-2996

Notes (Case Narrative):

Comments:

1.0) All MDA/MDC values are calculated on a sample specific basis.
2.0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.
3.0) Data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.
4.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix. Modified analyses are indicated by the subsequent addition of "m" to the procedure number (i.e. 900.0M).
5.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occuring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than the actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
6.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228 (Gamma Spectroscopy only).
7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234 (Gamma Spectroscopy only).
8.0) All gamma spectroscopy was performed utilizing high purity germanium detectors (**HPGe**).
9.0) ARS makes every attempt to match sample density to calibrated density; however, in some cases, it is not practical or possible to do so and data results may be affected (Gamma Spectroscopy only).
10.0) Gamma spectroscopy results are calculated values based on the **ORTEC®** GammaVision ENV32 Analysis Engine.
11.0) ACLASS DOD and ISO 17025 certification applies only to the following analytes and methods: Gross Alpha and Gross Beta (EPA 900, SM7110B&C, SW846 9310); Radium 226 (EPA 903, EPA 903.1, SM 7500 Ra-B, SW846 9315); Radium 228 (EPA 904, SM 7500 Ra-B SW846 9320); Iodine-131(EPA 901.1); Uranium by ICPMS (EPA 200.8); Strontium 89/90 (EPA 905, Eichrom SRW01, HASL 300 Sr-03-RC); Tritium (EPA 906, EPA 906M); Gamma Emitters (EPA 901.1, SM7120B, HASL 300 Ga-01-R); Americium-241, Curium 242/244, Plutonium 239/240 and 241, Thorium 228/230/232, Uranium 234/233 and 238 (Eichrom ACW03 VBS); Lead 210 (HASL 300 Pb-01-RC, Eichrom OTW01); Polonium 210 (HASL 300 Po-01-RC, HASL 300 Po-02-RC); Technetium-99 (Eichrom TCW02, Eichrom TCS01M).

Method References:

1.0) **EPA 600/4-80-032**; Prescribed Procedures for the Measurements of Radioactivity in Drinking Water, August 1980.
2.0) **Standard Methods for the Examination of Water and Wastewater** (On-Line Edition)
3.0) **EPA SW-846**; Test Methods for Evaluating Solid Waste, (On-Line edition)
4.0) **EPA 600/4/79-020**; Methods for Chemical Analysis of Water and Waste, March 1983.
5.0) **HASL 300**; The Procedures Manual of the Environmental Measurements Laboratory, Volume I, 28th Edition February, 1997.

Definitions:

CRDL	Contract Required Detection Limit
CSU	Combined Standard Uncertainty
DLC	Decision Level Concentration (ANSI N42.23) or critical level
DO	Duplicate Original
DUP	Method Duplicate
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
MDA	Minimum Detectable Activity
MDC	(Minimum Detectable Concentration) minimum concentration of the analyte that ARS can detect utilizing the specific analysis
MBL	Method Blank
MS/MSD	Matrix Spike/Matrix Spike Duplicate
N/A	Not Applicable
NP	Not Provided
NR	Not Referenced
LOD	Limit of Detection
LOQ	Limit of Quantitation

Data Qualifiers:

B	The analyte is found in both the associated method blank and the sample. This flag indicates probable blank contamination.
D	Sample analysis accomplished through dilution.
J	The reported result is an estimated value above the limit of detection but outside of quantitation range (e.g., matrix interference was observed).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).
U	Activity is below the MDC, MDA, MDL, or LOD
N	The analyte is a tentatively identified compound using mass spectrometry or any non-customer requested compounds that are tentatively identified.
*	LCS/LCSD or MS/MSD fails RPD criteria.
S	Spike
SC	Subcontracted out to another qualified laboratory
H	Holding time exceeded

B Environmental Laboratory, LLC

1606 E Brazos Suite D Victoria, Texas 77901 ph. (361) 572-8224

Chain Of Custody Rec

Batch # 57623 | TEMP UN-C: 2.1 | Page 1 of 2 | THERM ID# 3 | TEMP Corr: 1.9

Customer / Report Information

Name: Coleto Creek Power
Attention: Rick Coleman
Address: P.O. Box 8; Fannin, TX 77960

Billing Information X Check box if Billing is the same as Report Information

Address:
Attention: PO #
Project: CCR Sampling
Comments:

Phone: 361-788-5145 FAX:
EMAIL: richard.coleman@dynegy.com

Requested Analysis | **Completed By laboratory**

Sample Information

Collected By:

Client / Field Sample ID	Collected Date	Collected Time	G = Grab C = Composite	Matrix (DW - Drinking H20, S - Solid, WW - Waste H20, SL - Sludge, L - Liquid, w - Water)	Container TYPE	Container NUMBER	Container Size	Preservative	D Metals*	A Cl, F*, SO4	A pH	C TDS	E Ra226 & Ra228	b Alk:Tot, Carb,BiCarb	F Diss Li & Mo			Custody Seals Present Yes ☐ No ☐ Intact Yes ☐ No ☐ LAB Sample Number
PS3	7-11-17	907	G	WW	P	6	1L 500mL 250mL	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ ____ ☐ Na2SO3	X	X	X	X	X	X	X			S171921623
MW-11		850	G	WW	P	6	1L 500mL 250ml	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ ____ ☐ Na2SO3	X	X	X	X	X	X	X			S17192162A
MW9		1047	G	WW	P	6	1L 500mL 250mL	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ ____ ☐ Na2SO3	X	X	X	X	X	X	X			S17192162B
MW9A		1009	G	WW	P	6	1L 500mL 250mL	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ ____ ☐ Na2SO3	X	X	X	X	X	X	X			S17192162C
MW10		1121	G	WW	P	6	1L 500mL 250mL	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ ____ ☐ Na2SO3	X	X	X	X	X	X	X			S17192162D
MW10A		1454	G	WW	P	6	1L 500mL 250mL	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ ____ ☐ Na2SO3	X	X	X	X	X	X	X			S17192162E
MW5		1316	G	WW	P	6	1L 500mL 250mL	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ ____ ☐ Na2SO3	X	X	X	X	X	X	X			S17192162F

Required Turnaround: ☒ Routine (6-10 Business days) | **Expedite / Rush:** ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business days ☐ 5 Business days ☐ Other ____ REMARKS:

Surcharge will apply to RUSH TAT | **Authorized BY:** | **Container Type: P=Plastic, G=Glass, V=Voa, O=Other** | **Carrier ID :**

		Date:	Time:		Date:	Time:
Relinquished By:		7-11-17	1530	Received By:	7/11/17	1530
Relinquished By:		7/11/17	1620	Received By:	7/11/17	1620
Relinquished By		Date:	Time:	Received By:	Date:	Time:

FLuoride: MAL 0.25 mg/L Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Mg,K,Na, & Hg

B Environmental Laboratory, LLC
1606 E Brazos Suite D Victoria, Texas 77901 ph. (361) 572-8224

Chain Of Custody Rec

Batch # 57623 | TEMP UN-C 2.1 | Page 2 of 2

THERM ID# 3 | TEMP Corr: 1.9

Customer / Report Information
Name: Coleto Creek Power
Attention: Rick Coleman
Address: P.O. Box 8; Fannin, TX 77960

Billing Information X Check box if Billing is the same as Report Information
Address:
Attention: PO #
Project: CCR Sampling
Comments:

Phone: 361-788-5145 FAX:
EMAIL: richard.coleman@dynegy.com

Requested Analysis | Completed By laboratory

Custody Seals Present Yes ☐ No ☐
Intact Yes ☐ No ☐

Collected By:

Client / Field Sample ID	Collected Date	Collected Time	G = Grab C = Composite	Matrix (DW - Drinking H20, S - Solid, WW - Waste H20, SL - Sludge, L - Liquid, w - Water)	Container TYPE	NUMBER	Size	Preservative	Metals* D	Cl, F*, SO4 A	pH A	TDS C	Ra226 & Ra228 E	Alk:Tot, Carb, BiCarb B	Diss Li & Mo F			LAB Sample Number
Dup 2	7-11-17		G	WW	P	6	1L 500mL 250mL	☒ HNO3 ☒ ICE	X	X	X	X	X	X	X			S17192162G
mw 10 MS	↓	1124	G	WW	P	6	1L 500mL 250mL	☒ HNO3 ☒ ICE	X	X	X	X	X	X	X			
mw 10 MSD	↓	1121	G	WW	P	6	1L 500mL 250mL	☒ HNO3 ☒ ICE	X	X	X	X	X	X	X			
			G	WW	P	6	1L 500mL 250mL	☒ HNO3 ☒ ICE	X	X	X	X	X	X	X			
			G	WW	P	6	1L 500mL 250mL	☒ HNO3 ☒ ICE	X	X	X	X	X	X	X			
			G	WW	P	6	1L 500mL 250mL	☒ HNO3 ☒ ICE	X	X	X	X	X	X	X			
			G	WW	P	6	1L 500mL 250mL	☒ HNO3 ☒ ICE	X	X	X	X	X	X	X			

Preservative options: H2SO4, H3PO4, ICE, HNO3, NaOH, HCL, Na2SO3

Required Turnaround: ☒ Routine (6-10 Business days) Expedite / Rush: ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business days ☐ 5 Business days ☐ Other REMARKS:

Surcharge will apply to RUSH TAT Authorized BY: | Container Type: P=Plastic, G=Glass, V=Voa, O=Other | Carrier ID :

Relinquished By:	[signature]	Date:	7-11-17	Time:	1530	Received By:	[signature]	Date:	7/11/17	Time: 1530
Relinquished By:	[signature]	Date:	7/11/17	Time:	1620	Received By:	Lori Valenzuela	Date:	7/11/17	Time: 1620
Relinquished By		Date:		Time:		Received By:		Date:		Time:

FLuoride: MAL 0.25 mg/L Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Mg,K,Na, & Hg

BatchNo: 57717

SAMPLE REPORT

T104704328-17-14

Business

Coleto Creek Power - R Coleman
PO Box 8
Fannin TX 77960
Att: Rick Coleman

Laboratory

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901
ph. 361-572-8224

Reference Information

Project: CCR Sampling

Printed: Wednesday, August 16, 2017

Re: Coleto Creek Power - R Coleman

Dear: Rick Coleman

Attached are the results for sample(s) received on 7/12/2017

The analytical results relate only to the samples tested.
All supporting quality data meets the requirements of NELAC unless noted in the case narrative section of the report.

This report contains 37 pages (including the cover page)

If you have any questions concerning this report, please do not hesitate to call (361) 572-8224 or Fax us at (361) 572-4115

Respectfully Submitted,

Kevin Baros

Laboratory Director

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57717

Batch No: 57717

Sample Receipt Checklist

Date Received: 7/12/2017

Project	CCR Sampling	Received By:	Woodruff
Login completed by:	Woodruff	7/12/2017	
	Signature	LoginDate:	

Carrier Name: Walk In

Shipping container/cooler in good condition?	☑ YES	☐ NO	☐ Not Present	
Custody seals intact on shipping container/cooler?	☐ YES	☐ NO	☑ Not Present	
Custody seals intact on sample bottles?	☐ YES	☐ NO	☑ Not Present	
Chain of Custody present?	☑ YES	☐ NO		
Chain of Custody signed when relinquished and received	☑ YES	☐ NO		
Chain of Custody agrees with sample labels?	☑ YES	☐ NO		
Samples in proper container/bottles?	☑ YES	☐ NO		
Sample containers intact?	☑ YES	☐ NO		
Sufficient sample volume for indicated tests?	☑ YES	☐ NO		
All samples received within holding times?	☑ YES	☐ NO		
Container/Temp Blank - temperature in compliance?	☑ YES	☐ NO	>0 <6 °C On Ice	
Water - VOA vials have zero headspace? Bubble < 6mm?	☐ YES	☐ NO	☑ No VOA Vials submitted	
Water - pH acceptable upon receipt?	☑ YES	☐ NO	☐ Not Applicable	

*TEMP 4.6/4.4 | pH Adjusted? No | Checked By L. Vahrenkamp

Any No and/or N/A (not applicable) response must be detailed in the comments section below.

Client contacted		PersonContacted	
Contacted by:		Date Contacted:	

Regarding:

Comments:
Therm #3. HNO3 Lot # 2-42-12. pH Paper Lot # 2-25-6.

Corrective Action:

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57717

Sample Report Information

Sample ID:	S171931625	Client ID:	MW-6	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #6
Notes:

Batch No: 57717
Sampled: 7/12/2017 7:55 AM

Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	69	mg/L	EPA 300	K Baros	7/13/2017 9:44	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	183	mg/L	SM 2320 B		7/17/2017 12:56	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/17/2017 12:56	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	183	mg/L	SM 2320 B		7/17/2017 12:56	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.35	mg/L	EPA 300	K Baros	7/13/2017 9:44	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.25	SU	SM 4500-H+B	C Watts	7/12/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	557	mg/L	SM2540C	C Watts	7/19/2017 8:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/18/2017 12:44					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	98	mg/L	EPA 300	K Baros	7/13/2017 9:44	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/3/2017 10:25					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57717

Sample Report Information

Sample ID:	S17193162A	Client ID:	MW-7	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #7
Notes:

Batch No: 57717
Sampled: 7/12/2017 8:32 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	89	mg/L	EPA 300	K Baros	7/12/2017 22:16	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	258	mg/L	SM 2320 B		7/17/2017 13:10	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/17/2017 13:10	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	258	mg/L	SM 2320 B		7/17/2017 13:10	10	10			☐	
Fluoride, IC	0.6	mg/L	EPA 300	K Baros	7/12/2017 22:16	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.17	SU	SM 4500-H+B	C Watts	7/12/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	377	mg/L	SM2540C	C Watts	7/19/2017 16:15	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/18/2017 12:57					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	74	mg/L	EPA 300	K Baros	7/12/2017 22:16	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/14/2017 8:21					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57717

Sample Report Information

Sample ID:	S17193162B	Client ID:	BV-1	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV-1
Notes:

Batch No: 57717
Sampled: 7/12/2017 11:08 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	134	mg/L	EPA 300	K Baros	7/12/2017 22:54	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	391	mg/L	SM 2320 B		7/17/2017 13:23	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/17/2017 13:23	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	391	mg/L	SM 2320 B		7/17/2017 13:23	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.75	mg/L	EPA 300	K Baros	7/12/2017 22:54	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.2	SU	SM 4500-H+B	C Watts	7/12/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	380	mg/L	SM2540C	C Watts	7/19/2017 16:15	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/18/2017 12:58					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	175	mg/L	EPA 300	K Baros	7/12/2017 22:54	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/14/2017 8:21					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57717

Sample Report Information

Sample ID:	S17193162C	Client ID:	BV-5	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV-5
Notes:

Batch No: 57717
Sampled: 7/12/2017 11:31 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	112	mg/L	EPA 300	K Baros	7/12/2017 23:32	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	388	mg/L	SM 2320 B		7/17/2017 13:37	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/17/2017 13:37	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	388	mg/L	SM 2320 B		7/17/2017 13:37	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.56	mg/L	EPA 300	K Baros	7/12/2017 23:32	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	6.95	SU	SM 4500-H+B	C Watts	7/12/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	430	mg/L	SM2540C	C Watts	7/19/2017 16:15	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	c	#			7/18/2017 13:00					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	140	mg/L	EPA 300	K Baros	7/12/2017 23:32	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	c	#			8/14/2017 8:21					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57717

Sample Report Information

Sample ID:	S17193162D	Client ID:	BV-10	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV-10
Notes:

Batch No: 57717
Sampled: 7/12/2017 10:08 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	84	mg/L	EPA 300	K Baros	7/13/2017 0:11	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	298	mg/L	SM 2320 B		7/17/2017 13:47	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/17/2017	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	298	mg/L	SM 2320 B		7/17/2017 13:47	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.91	mg/L	EPA 300	K Baros	7/13/2017 0:11	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	6.9	SU	SM 4500-H+B	C Watts	7/12/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	537	mg/L	SM2540C	C Watts	7/19/2017 16:15	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/18/2017 13:02					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	78	mg/L	EPA 300	K Baros	7/13/2017 0:11	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/14/2017 8:21					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57717

Sample Report Information

Sample ID:	S17193162E	Client ID:	BV-19	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV-19
Notes:

Batch No: 57717
Sampled: 7/12/2017 9:29 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	142	mg/L	EPA 300	K Baros	7/13/2017 0:49	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	336	mg/L	SM 2320 B		7/17/2017 13:58	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/17/2017 13:58	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	336	mg/L	SM 2320 B		7/17/2017 13:58	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.49	mg/L	EPA 300	K Baros	7/13/2017 0:49	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	6.99	SU	SM 4500-H+B	C Watts	7/12/2017 16:45					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	1227	mg/L	SM2540C	C Watts	7/19/2017 16:15	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/18/2017 13:24					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	63	mg/L	EPA 300	K Baros	7/13/2017 0:49	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/3/2017 10:25					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57717

QA Summary Report

Parameter	ID	Result	Ref Value	Amt Added	LOQ	Qualifer	Control	Flag	Comments
.Method Blank									
.- Chloride, IC	Q172041251	<1mg/L	0		1		1		Blank Acceptable.
7/12/2017 11:28									
Fluoride, IC	Q172041251	<0.25mg/L	0		0.25		0.25		Blank Acceptable.
7/12/2017 11:28									
Solids, Total Dissolved	Q172051409	<25mg/L	0		10		25		Blank Acceptable.
7/19/2017 16:15									
Solids, Total Dissolved	Q172010929	<25mg/L	0		10		25		Blank Acceptable.
7/19/2017 8:00									
Sulfate, IC	Q172041251	<1mg/L	0		1		1		Blank Acceptable.
7/12/2017 11:28									
Duplicate									
pH (Standard Units)	Q17193165A	7.28SU	7.25		2	0.4%	20		Duplicate RPD Acceptable.
7/12/2017 16:45									
Solids, Total Dissolved	Q172010931	4150mg/L	4110		10	1.0%	20		Duplicate RPD Acceptable.
7/19/2017 8:00									
Solids, Total Dissolved	Q172051411	547mg/L	537		10	1.8%	20		Duplicate RPD Acceptable.
7/19/2017 16:15									
Laboratory Control Standard									
.- Chloride, IC	Q172041253	24.89mg/L	25		1	99.6%	80 - 120		Standard Recovery Acceptable.
7/12/2017 12:07						0.4%	20		Standard RPD Acceptable.
Fluoride, IC	Q172041253	1.94mg/L	2		0.25	97.0%	80 - 120		Standard Recovery Acceptable.
7/12/2017 12:07						3.0%	20		Standard RPD Acceptable.
pH (Standard Units)	Q171931659	7.03SU	7		2	100.4%	80 - 120		Standard Recovery Acceptable.
7/12/2017 16:45						0.4%	20		Standard RPD Acceptable.
Sulfate, IC	Q172041253	24.95mg/L	25		1	99.8%	80 - 120		Standard Recovery Acceptable.
7/12/2017 12:07						0.2%	20		Standard RPD Acceptable.
Matrix Spike									
.- Chloride, IC	Q172041254	92.7mg/L	93.4	25	1	97.2%	80 - 120		Spike Recovery Acceptable.
7/12/2017 16:33						0.8%	20		Spike RPD Acceptable.
Fluoride, IC	Q172041254	2.62mg/L	2.76	2	0.25	93.0%	80 - 120		Spike Recovery Acceptable.
7/12/2017 16:33						5.2%	20		Spike RPD Acceptable.
Sulfate, IC	Q172041254	103.6mg/L	104.7	25	1	95.6%	70 - 130		Spike Recovery Acceptable.
7/12/2017 16:33						1.1%	20		Spike RPD Acceptable.
Matrix Spike Dup									
.- Chloride, IC	Q17204125A	91.9mg/L	93.4	25	1	94.0%	80 - 120		Spike Recovery Acceptable.
7/12/2017 17:11						1.6%	20		Spike RPD Acceptable.
Fluoride, IC	Q17204125A	2.63mg/L	2.76	2	0.25	93.5%	80 - 120		Spike Recovery Acceptable.
7/12/2017 17:11						4.8%	20		Spike RPD Acceptable.
Sulfate, IC	Q17204125A	102.5mg/L	104.7	25	1	91.2%	70 - 130		Spike Recovery Acceptable.
7/12/2017 17:11						2.1%	20		Spike RPD Acceptable.

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57717 **Page 10 of 37**

Flag and Qualifier Legend

Negative - Result Detected	***MDL = Method Detection Limit***	***DF = Dilution Factor***
Caution - Problem Detected	*LOQ = Limit of Quantitation*	***j = Analyte detected between MDL and LOQ***
Warning - Null Value	***S = surrogate standard out of limit***	***H = sample out of hold time***

MS, MSD, RPD- Failure may occur due to matrix interference, data released per QA plan

Wednesday, August 16, 2017 **B Environmental - LDMS QA Report Summary**

Note: THANK YOU!

DHL Analytical, Inc. **Date:** *24-Jul-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Lab Order: 1707099

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition and Standard Methods.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives except where noted in the following. For Total Metals Analysis, the recoveries of three analytes for the Matrix Spike and Matrix Spike Duplicate (1707099-01 MS/MSD) were above the method control limits. These are flagged accordingly in the QC Summary Report. These analytes were within method control limits in the associated LCS. No further corrective action was taken.

For Total Metals Analysis, the RPD of Boron for the Serial Dilution (1707099-01 SD) was above the method control limit. This is flagged accordingly in the QC Summary Report. This analyte was within method control limits in the associated Post Digestion Spike. No further corrective action was taken.

For Total/Dissolved Metals Analysis, the results of Dissolved Lithium/Molybdenum for five of the samples were slightly higher than the results of Total Lithium/Molybdenum. The results were within acceptable analytical variation limits. No further corrective action was taken.

DHL Analytical, Inc.

Date: *24-Jul-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR Sampling (57717)
Lab Order: 1707099

Client Sample ID: MW-6
Lab ID: 1707099-01
Alternate ID: S171931625
Collection Date: 07/12/17 07:55 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	8.96	5.00	10.0	J	µg/L	1	07/20/17 02:03 PM
Dissolved Molybdenum	7.68	2.00	5.00		µg/L	1	07/20/17 02:03 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **RO**
Antimony	<2.50	0.800	2.50		µg/L	1	07/18/17 12:44 PM
Arsenic	7.70	2.00	5.00		µg/L	1	07/18/17 12:44 PM
Barium	81.9	3.00	10.0		µg/L	1	07/18/17 12:44 PM
Beryllium	<1.00	0.300	1.00		µg/L	1	07/19/17 12:11 PM
Boron	1760	100	300		µg/L	10	07/19/17 11:24 AM
Cadmium	<1.00	0.300	1.00		µg/L	1	07/18/17 12:44 PM
Calcium	81600	1000	3000		µg/L	10	07/19/17 11:24 AM
Chromium	<5.00	2.00	5.00		µg/L	1	07/18/17 12:44 PM
Cobalt	<5.00	3.00	5.00		µg/L	1	07/18/17 12:44 PM
Lead	<1.00	0.300	1.00		µg/L	1	07/18/17 12:44 PM
Lithium	8.70	5.00	10.0	J	µg/L	1	07/19/17 12:11 PM
Magnesium	8910	100	300		µg/L	1	07/18/17 12:44 PM
Molybdenum	7.60	2.00	5.00		µg/L	1	07/18/17 12:44 PM
Potassium	856	100	300		µg/L	1	07/19/17 12:11 PM
Selenium	<5.00	2.00	5.00		µg/L	1	07/18/17 12:44 PM
Sodium	70600	1000	3000		µg/L	10	07/19/17 11:24 AM
Thallium	<1.50	0.500	1.50		µg/L	1	07/18/17 12:44 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.200	0.0800	0.200		µg/L	1	07/24/17 10:33 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	183	10.0	20.0		mg/L @ pH 4.5	1	07/17/17 12:56 PM
Alkalinity, Carbonate (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.5	1	07/17/17 12:56 PM
Alkalinity, Hydroxide (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.5	1	07/17/17 12:56 PM
Alkalinity, Total (As CaCO3)	183	20.0	20.0		mg/L @ pH 4.5	1	07/17/17 12:56 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level
C	Sample Result or QC discussed in the Case Narrative
E	TPH pattern not Gas or Diesel Range Pattern
MDL	Method Detection Limit
RL	Reporting Limit
B	Analyte detected in the associated Method Blank
DF	Dilution Factor
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *24-Jul-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR Sampling (57717)
Lab Order: 1707099

Client Sample ID: MW-7
Lab ID: 1707099-02
Alternate ID: S17193162A
Collection Date: 07/12/17 08:32 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	10.6	5.00	10.0		µg/L	1	07/20/17 02:05 PM
Dissolved Molybdenum	9.65	2.00	5.00		µg/L	1	07/20/17 02:05 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **RO**
Antimony	<2.50	0.800	2.50		µg/L	1	07/18/17 12:57 PM
Arsenic	9.61	2.00	5.00		µg/L	1	07/18/17 12:57 PM
Barium	91.5	3.00	10.0		µg/L	1	07/18/17 12:57 PM
Beryllium	<1.00	0.300	1.00		µg/L	1	07/19/17 12:21 PM
Boron	952	100	300		µg/L	10	07/19/17 11:28 AM
Cadmium	<1.00	0.300	1.00		µg/L	1	07/18/17 12:57 PM
Calcium	75000	1000	3000		µg/L	10	07/19/17 11:28 AM
Chromium	<5.00	2.00	5.00		µg/L	1	07/18/17 12:57 PM
Cobalt	<5.00	3.00	5.00		µg/L	1	07/18/17 12:57 PM
Lead	<1.00	0.300	1.00		µg/L	1	07/18/17 12:57 PM
Lithium	11.0	5.00	10.0		µg/L	1	07/19/17 12:21 PM
Magnesium	10100	100	300		µg/L	1	07/18/17 12:57 PM
Molybdenum	9.53	2.00	5.00		µg/L	1	07/18/17 12:57 PM
Potassium	1250	100	300		µg/L	1	07/19/17 12:21 PM
Selenium	<5.00	2.00	5.00		µg/L	1	07/18/17 12:57 PM
Sodium	111000	1000	3000		µg/L	10	07/19/17 11:28 AM
Thallium	<1.50	0.500	1.50		µg/L	1	07/18/17 12:57 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.200	0.0800	0.200		µg/L	1	07/24/17 10:35 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	258	10.0	20.0		mg/L @ pH 4.52	1	07/17/17 01:10 PM
Alkalinity, Carbonate (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.52	1	07/17/17 01:10 PM
Alkalinity, Hydroxide (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.52	1	07/17/17 01:10 PM
Alkalinity, Total (As CaCO3)	258	20.0	20.0		mg/L @ pH 4.52	1	07/17/17 01:10 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *24-Jul-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR Sampling (57717)
Lab Order: 1707099

Client Sample ID: BV-1
Lab ID: 1707099-03
Alternate ID: S17193162B
Collection Date: 07/12/17 11:08 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	15.4	5.00	10.0		µg/L	1	07/20/17 02:07 PM
Dissolved Molybdenum	4.96	2.00	5.00	J	µg/L	1	07/20/17 02:07 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **RO**
Antimony	<2.50	0.800	2.50		µg/L	1	07/18/17 12:58 PM
Arsenic	11.2	2.00	5.00		µg/L	1	07/18/17 12:58 PM
Barium	51.4	3.00	10.0		µg/L	1	07/18/17 12:58 PM
Beryllium	<1.00	0.300	1.00		µg/L	1	07/19/17 12:25 PM
Boron	1310	100	300		µg/L	10	07/19/17 11:31 AM
Cadmium	<1.00	0.300	1.00		µg/L	1	07/18/17 12:58 PM
Calcium	75500	1000	3000		µg/L	10	07/19/17 11:31 AM
Chromium	11.9	2.00	5.00		µg/L	1	07/18/17 12:58 PM
Cobalt	406	3.00	5.00		µg/L	1	07/18/17 12:58 PM
Lead	4.46	0.300	1.00		µg/L	1	07/18/17 12:58 PM
Lithium	16.7	5.00	10.0		µg/L	1	07/19/17 12:25 PM
Magnesium	11500	100	300		µg/L	1	07/18/17 12:58 PM
Molybdenum	4.91	2.00	5.00	J	µg/L	1	07/18/17 12:58 PM
Potassium	765	100	300		µg/L	1	07/19/17 12:25 PM
Selenium	<5.00	2.00	5.00		µg/L	1	07/18/17 12:58 PM
Sodium	268000	5000	15000		µg/L	50	07/19/17 11:29 AM
Thallium	<1.50	0.500	1.50		µg/L	1	07/18/17 12:58 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.200	0.0800	0.200		µg/L	1	07/24/17 10:42 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	391	10.0	20.0		mg/L @ pH 4.52	1	07/17/17 01:23 PM
Alkalinity, Carbonate (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.52	1	07/17/17 01:23 PM
Alkalinity, Hydroxide (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.52	1	07/17/17 01:23 PM
Alkalinity, Total (As CaCO3)	391	20.0	20.0		mg/L @ pH 4.52	1	07/17/17 01:23 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *24-Jul-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR Sampling (57717)
Lab Order: 1707099

Client Sample ID: BV-5
Lab ID: 1707099-04
Alternate ID: S17193162C
Collection Date: 07/12/17 11:31 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	20.0	5.00	10.0		µg/L	1	07/20/17 02:09 PM
Dissolved Molybdenum	9.44	2.00	5.00		µg/L	1	07/20/17 02:09 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **RO**
Antimony	<2.50	0.800	2.50		µg/L	1	07/18/17 01:00 PM
Arsenic	8.49	2.00	5.00		µg/L	1	07/18/17 01:00 PM
Barium	41.6	3.00	10.0		µg/L	1	07/18/17 01:00 PM
Beryllium	<1.00	0.300	1.00		µg/L	1	07/19/17 12:28 PM
Boron	1070	100	300		µg/L	10	07/19/17 11:33 AM
Cadmium	<1.00	0.300	1.00		µg/L	1	07/18/17 01:00 PM
Calcium	96800	1000	3000		µg/L	10	07/19/17 11:33 AM
Chromium	<5.00	2.00	5.00		µg/L	1	07/18/17 01:00 PM
Cobalt	48.4	3.00	5.00		µg/L	1	07/18/17 01:00 PM
Lead	0.609	0.300	1.00	J	µg/L	1	07/18/17 01:00 PM
Lithium	18.8	5.00	10.0		µg/L	1	07/19/17 12:28 PM
Magnesium	18000	100	300		µg/L	1	07/18/17 01:00 PM
Molybdenum	9.60	2.00	5.00		µg/L	1	07/18/17 01:00 PM
Potassium	191	100	300	J	µg/L	1	07/19/17 12:28 PM
Selenium	<5.00	2.00	5.00		µg/L	1	07/18/17 01:00 PM
Sodium	179000	1000	3000		µg/L	10	07/19/17 11:33 AM
Thallium	<1.50	0.500	1.50		µg/L	1	07/18/17 01:00 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.200	0.0800	0.200		µg/L	1	07/24/17 10:44 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	388	10.0	20.0		mg/L @ pH 4.52	1	07/17/17 01:37 PM
Alkalinity, Carbonate (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.52	1	07/17/17 01:37 PM
Alkalinity, Hydroxide (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.52	1	07/17/17 01:37 PM
Alkalinity, Total (As CaCO3)	388	20.0	20.0		mg/L @ pH 4.52	1	07/17/17 01:37 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *24-Jul-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR Sampling (57717)
Lab Order: 1707099

Client Sample ID: BV-10
Lab ID: 1707099-05
Alternate ID: S17193162D
Collection Date: 07/12/17 10:08 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	11.1	5.00	10.0		µg/L	1	07/20/17 02:11 PM
Dissolved Molybdenum	8.24	2.00	5.00		µg/L	1	07/20/17 02:11 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **RO**
Antimony	<2.50	0.800	2.50		µg/L	1	07/18/17 01:02 PM
Arsenic	13.2	2.00	5.00		µg/L	1	07/18/17 01:02 PM
Barium	50.1	3.00	10.0		µg/L	1	07/18/17 01:02 PM
Beryllium	<1.00	0.300	1.00		µg/L	1	07/19/17 12:32 PM
Boron	1170	100	300		µg/L	10	07/19/17 11:35 AM
Cadmium	<1.00	0.300	1.00		µg/L	1	07/18/17 01:02 PM
Calcium	47200	1000	3000		µg/L	10	07/19/17 11:35 AM
Chromium	5.08	2.00	5.00		µg/L	1	07/18/17 01:02 PM
Cobalt	222	3.00	5.00		µg/L	1	07/18/17 01:02 PM
Lead	5.58	0.300	1.00		µg/L	1	07/18/17 01:02 PM
Lithium	12.0	5.00	10.0		µg/L	1	07/19/17 12:32 PM
Magnesium	7550	100	300		µg/L	1	07/18/17 01:02 PM
Molybdenum	8.29	2.00	5.00		µg/L	1	07/18/17 01:02 PM
Potassium	766	100	300		µg/L	1	07/19/17 12:32 PM
Selenium	<5.00	2.00	5.00		µg/L	1	07/18/17 01:02 PM
Sodium	173000	1000	3000		µg/L	10	07/19/17 11:35 AM
Thallium	<1.50	0.500	1.50		µg/L	1	07/18/17 01:02 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.200	0.0800	0.200		µg/L	1	07/24/17 10:47 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	298	10.0	20.0		mg/L @ pH 4.52	1	07/17/17 01:47 PM
Alkalinity, Carbonate (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.52	1	07/17/17 01:47 PM
Alkalinity, Hydroxide (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.52	1	07/17/17 01:47 PM
Alkalinity, Total (As CaCO3)	298	20.0	20.0		mg/L @ pH 4.52	1	07/17/17 01:47 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *24-Jul-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Project No: CCR Sampling (57717)
Lab Order: 1707099

Client Sample ID: BV-19
Lab ID: 1707099-06
Alternate ID: S17193162E
Collection Date: 07/12/17 09:29 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	15.3	5.00	10.0		µg/L	1	07/20/17 02:13 PM
Dissolved Molybdenum	4.67	2.00	5.00	J	µg/L	1	07/20/17 02:13 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **RO**
Antimony	<2.50	0.800	2.50		µg/L	1	07/18/17 01:24 PM
Arsenic	8.33	2.00	5.00		µg/L	1	07/18/17 01:24 PM
Barium	94.7	3.00	10.0		µg/L	1	07/18/17 01:24 PM
Beryllium	<1.00	0.300	1.00		µg/L	1	07/19/17 12:36 PM
Boron	908	100	300		µg/L	10	07/19/17 11:37 AM
Cadmium	<1.00	0.300	1.00		µg/L	1	07/18/17 01:24 PM
Calcium	118000	1000	3000		µg/L	10	07/19/17 11:37 AM
Chromium	<5.00	2.00	5.00		µg/L	1	07/18/17 01:24 PM
Cobalt	<5.00	3.00	5.00		µg/L	1	07/18/17 01:24 PM
Lead	<1.00	0.300	1.00		µg/L	1	07/18/17 01:24 PM
Lithium	14.4	5.00	10.0		µg/L	1	07/19/17 12:36 PM
Magnesium	25400	1000	3000		µg/L	10	07/19/17 11:37 AM
Molybdenum	4.76	2.00	5.00	J	µg/L	1	07/18/17 01:24 PM
Potassium	695	100	300		µg/L	1	07/19/17 12:36 PM
Selenium	<5.00	2.00	5.00		µg/L	1	07/18/17 01:24 PM
Sodium	93900	1000	3000		µg/L	10	07/19/17 11:37 AM
Thallium	<1.50	0.500	1.50		µg/L	1	07/18/17 01:24 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	<0.200	0.0800	0.200		µg/L	1	07/24/17 10:49 AM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	336	10.0	20.0		mg/L @ pH 4.53	1	07/17/17 01:58 PM
Alkalinity, Carbonate (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.53	1	07/17/17 01:58 PM
Alkalinity, Hydroxide (As CaCO3)	<20.0	10.0	20.0		mg/L @ pH 4.53	1	07/17/17 01:58 PM
Alkalinity, Total (As CaCO3)	336	20.0	20.0		mg/L @ pH 4.53	1	07/17/17 01:58 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *24-Jul-17*

CLIENT: B-Environmental
Work Order: 1707099
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_170724B

The QC data in batch 81523 applies to the following samples: 1707099-01A, 1707099-02A, 1707099-03A, 1707099-04A, 1707099-05A, 1707099-06A

Sample ID	MB-81523	Batch ID:	81523	TestNo:	SW7470A	Units:	µg/L
SampType:	MBLK	Run ID:	CETAC2_HG_170724	Analysis Date:	7/24/2017 9:59:29 AM	Prep Date:	7/21/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.200	0.200								

Sample ID	LCS-81523	Batch ID:	81523	TestNo:	SW7470A	Units:	µg/L
SampType:	LCS	Run ID:	CETAC2_HG_170724	Analysis Date:	7/24/2017 10:01:45 AM	Prep Date:	7/21/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	2.00	0.200	2.000	0	100	85	115			

Sample ID	LCSD-81523	Batch ID:	81523	TestNo:	SW7470A	Units:	µg/L
SampType:	LCSD	Run ID:	CETAC2_HG_170724	Analysis Date:	7/24/2017 10:04:01 AM	Prep Date:	7/21/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	1.92	0.200	2.000	0	96.0	85	115	4.08	15	

Sample ID	1707095-05A SD	Batch ID:	81523	TestNo:	SW7470A	Units:	µg/L
SampType:	SD	Run ID:	CETAC2_HG_170724	Analysis Date:	7/24/2017 10:17:38 AM	Prep Date:	7/21/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<1.00	1.00	0	0				0	10	

Sample ID	1707095-05A PDS	Batch ID:	81523	TestNo:	SW7470A	Units:	µg/L
SampType:	PDS	Run ID:	CETAC2_HG_170724	Analysis Date:	7/24/2017 10:19:54 AM	Prep Date:	7/21/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	2.32	0.200	2.500	0	92.8	85	115			

Sample ID	1707095-05A MS	Batch ID:	81523	TestNo:	SW7470A	Units:	µg/L
SampType:	MS	Run ID:	CETAC2_HG_170724	Analysis Date:	7/24/2017 10:22:10 AM	Prep Date:	7/21/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	1.97	0.200	2.000	0	98.5	80	120			

Sample ID	1707095-05A MSD	Batch ID:	81523	TestNo:	SW7470A	Units:	µg/L
SampType:	MSD	Run ID:	CETAC2_HG_170724	Analysis Date:	7/24/2017 10:24:26 AM	Prep Date:	7/21/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	1.90	0.200	2.000	0	95.0	80	120	3.62	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707099
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170720C

The QC data in batch 81443 applies to the following samples: 1707099-01B, 1707099-02B, 1707099-03B, 1707099-04B, 1707099-05B, 1707099-06B

Sample ID **MB-81443** Batch ID: **81443** TestNo: **SW6020A** Units: **µg/L**
SampType: **MBLK** Run ID: **ICP-MS4_170720C** Analysis Date: **7/20/2017 1:11:00 PM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<10.0	10.0								
Molybdenum	<5.00	5.00								

Sample ID **LCS-81443** Batch ID: **81443** TestNo: **SW6020A** Units: **µg/L**
SampType: **LCS** Run ID: **ICP-MS4_170720C** Analysis Date: **7/20/2017 1:13:00 PM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	207	10.0	200.0	0	103	80	120			
Molybdenum	196	5.00	200.0	0	98.2	80	120			

Sample ID **LCSD-81443** Batch ID: **81443** TestNo: **SW6020A** Units: **µg/L**
SampType: **LCSD** Run ID: **ICP-MS4_170720C** Analysis Date: **7/20/2017 1:15:00 PM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	210	10.0	200.0	0	105	80	120	1.41	15	
Molybdenum	200	5.00	200.0	0	100	80	120	1.78	15	

Sample ID **1707095-05B SD** Batch ID: **81443** TestNo: **SW6020A** Units: **µg/L**
SampType: **SD** Run ID: **ICP-MS4_170720C** Analysis Date: **7/20/2017 1:21:00 PM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	<50.0	50.0	0	12.92				0	10	
Molybdenum	124	25.0	0	124.2				0.034	10	

Sample ID **1707095-05B PDS** Batch ID: **81443** TestNo: **SW6020A** Units: **µg/L**
SampType: **PDS** Run ID: **ICP-MS4_170720C** Analysis Date: **7/20/2017 1:41:00 PM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	211	10.0	200.0	12.92	99.1	80	120			
Molybdenum	315	5.00	200.0	124.2	95.3	80	120			

Sample ID **1707095-05B MS** Batch ID: **81443** TestNo: **SW6020A** Units: **µg/L**
SampType: **MS** Run ID: **ICP-MS4_170720C** Analysis Date: **7/20/2017 1:42:00 PM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	208	10.0	200.0	12.92	97.3	80	120			
Molybdenum	324	5.00	200.0	124.2	99.9	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707099
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170720C

Sample ID **1707095-05B MSD** Batch ID: **81443** TestNo: **SW6020A** Units: **µg/L**
SampType: **MSD** Run ID: **ICP-MS4_170720C** Analysis Date: **7/20/2017 1:44:00 PM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	208	10.0	200.0	12.92	97.6	80	120	0.236	15	
Molybdenum	319	5.00	200.0	124.2	97.5	80	120	1.49	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707099
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170718A

The QC data in batch 81434 applies to the following samples: 1707099-01A, 1707099-02A, 1707099-03A, 1707099-04A, 1707099-05A, 1707099-06A

Sample ID **MB-81434** Batch ID: **81434** TestNo: **SW6020A** Units: **µg/L**
SampType: **MBLK** Run ID: **ICP-MS5_170718A** Analysis Date: **7/18/2017 12:37:00 PM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<2.50	2.50								
Arsenic	<5.00	5.00								
Barium	<10.0	10.0								
Cadmium	<1.00	1.00								
Calcium	<300	300								
Chromium	<5.00	5.00								
Cobalt	<5.00	5.00								
Lead	<1.00	1.00								
Magnesium	<300	300								
Molybdenum	<5.00	5.00								
Selenium	<5.00	5.00								
Sodium	<300	300								
Thallium	<1.50	1.50								

Sample ID **LCS-81434** Batch ID: **81434** TestNo: **SW6020A** Units: **µg/L**
SampType: **LCS** Run ID: **ICP-MS5_170718A** Analysis Date: **7/18/2017 12:39:00 PM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	194	2.50	200.0	0	97.1	80	120			
Arsenic	199	5.00	200.0	0	99.5	80	120			
Barium	195	10.0	200.0	0	97.5	80	120			
Cadmium	191	1.00	200.0	0	95.4	80	120			
Calcium	5200	300	5000	0	104	80	120			
Chromium	206	5.00	200.0	0	103	80	120			
Cobalt	206	5.00	200.0	0	103	80	120			
Lead	195	1.00	200.0	0	97.4	80	120			
Magnesium	5100	300	5000	0	102	80	120			
Molybdenum	194	5.00	200.0	0	97.0	80	120			
Selenium	194	5.00	200.0	0	96.8	80	120			
Sodium	5170	300	5000	0	103	80	120			
Thallium	204	1.50	200.0	0	102	80	120			

Sample ID **LCSD-81434** Batch ID: **81434** TestNo: **SW6020A** Units: **µg/L**
SampType: **LCSD** Run ID: **ICP-MS5_170718A** Analysis Date: **7/18/2017 12:41:00 PM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	194	2.50	200.0	0	96.8	80	120	0.406	15	
Arsenic	199	5.00	200.0	0	99.3	80	120	0.233	15	
Barium	196	10.0	200.0	0	98.0	80	120	0.521	15	
Cadmium	189	1.00	200.0	0	94.5	80	120	0.932	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707099
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170718A

Sample ID	LCSD-81434	Batch ID:	81434	TestNo:	SW6020A	Units:	µg/L
SampType:	LCSD	Run ID:	ICP-MS5_170718A	Analysis Date:	7/18/2017 12:41:00 PM	Prep Date:	7/17/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	5230	300	5000	0	105	80	120	0.605	15	
Chromium	206	5.00	200.0	0	103	80	120	0.203	15	
Cobalt	204	5.00	200.0	0	102	80	120	0.945	15	
Lead	194	1.00	200.0	0	96.8	80	120	0.560	15	
Magnesium	5100	300	5000	0	102	80	120	0.022	15	
Molybdenum	193	5.00	200.0	0	96.4	80	120	0.619	15	
Selenium	194	5.00	200.0	0	96.8	80	120	0.060	15	
Sodium	5180	300	5000	0	104	80	120	0.301	15	
Thallium	201	1.50	200.0	0	101	80	120	1.32	15	

Sample ID	1707099-01A SD	Batch ID:	81434	TestNo:	SW6020A	Units:	µg/L
SampType:	SD	Run ID:	ICP-MS5_170718A	Analysis Date:	7/18/2017 12:46:00 PM	Prep Date:	7/17/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<12.5	12.5	0	0				0	10	
Arsenic	<25.0	25.0	0	7.697				0	10	
Barium	83.2	50.0	0	81.90				1.52	10	
Cadmium	<5.00	5.00	0	0				0	10	
Chromium	<25.0	25.0	0	0				0	10	
Cobalt	<25.0	25.0	0	0				0	10	
Lead	<5.00	5.00	0	0				0	10	
Magnesium	9080	1500	0	8910				1.85	10	
Molybdenum	<25.0	25.0	0	7.595				0	10	
Selenium	<25.0	25.0	0	0				0	10	
Thallium	<7.50	7.50	0	0				0	10	

Sample ID	1707099-01A PDS	Batch ID:	81434	TestNo:	SW6020A	Units:	µg/L
SampType:	PDS	Run ID:	ICP-MS5_170718A	Analysis Date:	7/18/2017 1:04:00 PM	Prep Date:	7/17/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	200	2.50	200.0	0	100	80	120			
Arsenic	206	5.00	200.0	7.697	99.1	80	120			
Barium	280	10.0	200.0	81.90	99.2	80	120			
Cadmium	196	1.00	200.0	0	97.9	80	120			
Chromium	217	5.00	200.0	0	109	80	120			
Cobalt	208	5.00	200.0	0	104	80	120			
Lead	199	1.00	200.0	0	99.6	80	120			
Magnesium	13400	300	5000	8910	90.2	80	120			
Molybdenum	205	5.00	200.0	7.595	98.7	80	120			
Selenium	188	5.00	200.0	0	93.8	80	120			
Thallium	210	1.50	200.0	0	105	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707099
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170718A

Sample ID 1707099-01A MS	Batch ID: 81434	TestNo: SW6020A	Units: µg/L
SampType: MS	Run ID: ICP-MS5_170718A	Analysis Date: 7/18/2017 1:05:00 PM	Prep Date: 7/17/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	198	2.50	200.0	0	99.1	80	120			
Arsenic	207	5.00	200.0	7.697	99.4	80	120			
Barium	285	10.0	200.0	81.90	101	80	120			
Cadmium	191	1.00	200.0	0	95.4	80	120			
Calcium	88600	300	5000	81390	145	80	120			S
Chromium	213	5.00	200.0	0	107	80	120			
Cobalt	205	5.00	200.0	0	102	80	120			
Lead	199	1.00	200.0	0	99.4	80	120			
Magnesium	14300	300	5000	8910	108	80	120			
Molybdenum	206	5.00	200.0	7.595	99.0	80	120			
Selenium	190	5.00	200.0	0	94.8	80	120			
Sodium	75800	300	5000	67720	162	80	120			S
Thallium	213	1.50	200.0	0	107	80	120			

Sample ID 1707099-01A MSD	Batch ID: 81434	TestNo: SW6020A	Units: µg/L
SampType: MSD	Run ID: ICP-MS5_170718A	Analysis Date: 7/18/2017 1:07:00 PM	Prep Date: 7/17/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	197	2.50	200.0	0	98.6	80	120	0.451	15	
Arsenic	205	5.00	200.0	7.697	98.7	80	120	0.725	15	
Barium	285	10.0	200.0	81.90	102	80	120	0.186	15	
Cadmium	191	1.00	200.0	0	95.4	80	120	0.014	15	
Calcium	88100	300	5000	81390	134	80	120	0.637	15	S
Chromium	209	5.00	200.0	0	104	80	120	2.03	15	
Cobalt	202	5.00	200.0	0	101	80	120	1.27	15	
Lead	196	1.00	200.0	0	98.1	80	120	1.37	15	
Magnesium	14200	300	5000	8910	105	80	120	1.01	15	
Molybdenum	205	5.00	200.0	7.595	98.7	80	120	0.261	15	
Selenium	185	5.00	200.0	0	92.7	80	120	2.16	15	
Sodium	75000	300	5000	67720	145	80	120	1.13	15	S
Thallium	207	1.50	200.0	0	104	80	120	2.72	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707099
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170719A

The QC data in batch 81434 applies to the following samples: 1707099-01A, 1707099-02A, 1707099-03A, 1707099-04A, 1707099-05A, 1707099-06A

Sample ID **MB-81434** Batch ID: **81434** TestNo: **SW6020A** Units: **µg/L**
SampType: **MBLK** Run ID: **ICP-MS5_170719A** Analysis Date: **7/19/2017 11:17:00 AM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	<1.00	1.00								
Boron	<30.0	30.0								
Lithium	<10.0	10.0								
Potassium	<300	300								

Sample ID **LCS-81434** Batch ID: **81434** TestNo: **SW6020A** Units: **µg/L**
SampType: **LCS** Run ID: **ICP-MS5_170719A** Analysis Date: **7/19/2017 11:19:00 AM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	199	1.00	200.0	0	99.6	80	120			
Boron	201	30.0	200.0	0	100	80	120			
Lithium	193	10.0	200.0	0	96.7	80	120			
Potassium	4990	300	5000	0	99.9	80	120			

Sample ID **LCSD-81434** Batch ID: **81434** TestNo: **SW6020A** Units: **µg/L**
SampType: **LCSD** Run ID: **ICP-MS5_170719A** Analysis Date: **7/19/2017 11:21:00 AM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	199	1.00	200.0	0	99.4	80	120	0.173	15	
Boron	212	30.0	200.0	0	106	80	120	5.60	15	
Lithium	195	10.0	200.0	0	97.3	80	120	0.614	15	
Potassium	4980	300	5000	0	99.6	80	120	0.218	15	

Sample ID **1707099-01A SD** Batch ID: **81434** TestNo: **SW6020A** Units: **µg/L**
SampType: **SD** Run ID: **ICP-MS5_170719A** Analysis Date: **7/19/2017 11:26:00 AM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	2140	1500	0	1760				19.3	10	R
Calcium	81800	15000	0	81650				0.139	10	
Sodium	70400	15000	0	70590				0.323	10	

Sample ID **1707099-01A PDS** Batch ID: **81434** TestNo: **SW6020A** Units: **µg/L**
SampType: **PDS** Run ID: **ICP-MS5_170719A** Analysis Date: **7/19/2017 11:44:00 AM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	4070	300	2000	1760	115	80	120			
Calcium	141000	3000	50000	81650	118	80	120			
Sodium	129000	3000	50000	70590	117	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707099
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170719A

Sample ID 1707099-01A MS	Batch ID: 81434	TestNo: SW6020A	Units: µg/L
SampType: MS	Run ID: ICP-MS5_170719A	Analysis Date: 7/19/2017 11:45:00 AM	Prep Date: 7/17/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	194	10.0	200.0	0	97.0	80	120			
Boron	2100	300	200.0	1760	171	80	120			S
Lithium	225	100	200.0	0	113	80	120			
Potassium	5930	3000	5000	0	119	80	120			

Sample ID 1707099-01A MSD	Batch ID: 81434	TestNo: SW6020A	Units: µg/L
SampType: MSD	Run ID: ICP-MS5_170719A	Analysis Date: 7/19/2017 11:47:00 AM	Prep Date: 7/17/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	198	10.0	200.0	0	98.9	80	120	1.96	15	
Boron	2020	300	200.0	1760	132	80	120	3.79	15	S
Lithium	226	100	200.0	0	113	80	120	0.035	15	
Potassium	5750	3000	5000	0	115	80	120	2.94	15	

Sample ID 1707099-01A SD	Batch ID: 81434	TestNo: SW6020A	Units: µg/L
SampType: SD	Run ID: ICP-MS5_170719A	Analysis Date: 7/19/2017 12:12:00 PM	Prep Date: 7/17/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	<5.00	5.00	0	0				0	10	
Lithium	<50.0	50.0	0	8.703				0	10	
Potassium	827	1500	0	855.6				3.35	10	

Sample ID 1707099-01A PDS	Batch ID: 81434	TestNo: SW6020A	Units: µg/L
SampType: PDS	Run ID: ICP-MS5_170719A	Analysis Date: 7/19/2017 12:39:00 PM	Prep Date: 7/17/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	211	1.00	200.0	0	105	80	120			
Lithium	223	10.0	200.0	8.703	107	80	120			
Potassium	5600	300	5000	855.6	94.8	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707099
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_170717B

The QC data in batch 81431 applies to the following samples: 1707099-01C, 1707099-02C, 1707099-03C, 1707099-04C, 1707099-05C, 1707099-06C

Sample ID **MB-81431** Batch ID: **81431** TestNo: **M2320 B** Units: **mg/L @ pH 4.2**
SampType: **MBLK** Run ID: **TITRATOR_170717B** Analysis Date: **7/17/2017 12:13:00 PM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	<20.0	20.0								
Alkalinity, Carbonate (As CaCO3)	<20.0	20.0								
Alkalinity, Hydroxide (As CaCO3)	<20.0	20.0								
Alkalinity, Total (As CaCO3)	<20.0	20.0								

Sample ID **LCS-81431** Batch ID: **81431** TestNo: **M2320 B** Units: **mg/L @ pH 4.22**
SampType: **LCS** Run ID: **TITRATOR_170717B** Analysis Date: **7/17/2017 12:17:00 PM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	50.5	20.0	50.00	0	101	74	129			

Sample ID **1707099-01C-DUP** Batch ID: **81431** TestNo: **M2320 B** Units: **mg/L @ pH 4.5**
SampType: **DUP** Run ID: **TITRATOR_170717B** Analysis Date: **7/17/2017 1:02:00 PM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	184	20.0	0	183.1				0.382	20	
Alkalinity, Carbonate (As CaCO3)	<20.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<20.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	184	20.0	0	183.1				0.382	20	

Sample ID **1707107-01C-DUP** Batch ID: **81431** TestNo: **M2320 B** Units: **mg/L @ pH 4.5**
SampType: **DUP** Run ID: **TITRATOR_170717B** Analysis Date: **7/17/2017 2:06:00 PM** Prep Date: **7/17/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	61.8	20.0	0	60.90				1.47	20	
Alkalinity, Carbonate (As CaCO3)	<20.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<20.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	61.8	20.0	0	60.90				1.47	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

2609 North River Road, Port Allen, Louisiana 70767
(800) 401-4277 -- FAX (225) 381-2996

ARS International, LLC

Laboratory Analysis Report

ARS1-17-02107

Prepared for:

B-Environmental

Kevin Baros
1606 East Brazos Street
Suite D
Victoria, TX 77901

dbenviro@suddenlinkmail.com; cbenviro@suddenlinkmail.com
swbenviro@suddenlinkmail.com

Phone: 361-572-8224
Fax: 361-572-4115

Project Manager Review

Management Review

Notes: ARS International, LLC assumes no liability for the use or the interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

Contact Person: Questions regarding this analytical report should be addressed to:

Project Manager

ProjectManagers@amrad.com

Phone: 225.381.2991
Fax: 225.381.2996

LELAP Cert# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-02107
Client Sample ID: S171931625 (Batch 57717)
Sample Collection Date: 07/12/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02107-001
Date Received: 07/14/17
Report Date: 08/14/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.136	0.113	0.155	0.058	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/14/17 8:21	CTRAMEL	92%
Ra-228	0.876	0.733	1.163	0.539	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/07/17 12:00	CTRAMEL	89%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-02107
Client Sample ID: S17193162A (Batch 57717)
Sample Collection Date: 07/12/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02107-002
Date Received: 07/14/17
Report Date: 08/14/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.333	0.157	0.153	0.058	NP		pCi/L	ARS-010/EPA 903.0/904.0	08/14/17 8:21	CTRAMEL	106%
Ra-228	0.792	0.704	1.131	0.527	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/07/17 12:00	CTRAMEL	105%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-02107
Client Sample ID: S17193162B (Batch 57717)
Sample Collection Date: 07/12/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02107-003
Date Received: 07/14/17
Report Date: 08/14/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.311	0.174	0.214	0.088	NP		pCi/L	ARS-010/EPA 903.0/904.0	08/14/17 8:21	CTRAMEL	86%
Ra-228	1.657	0.952	1.405	0.653	NP		pCi/L	ARS-010/EPA 903.0/904.0	08/07/17 12:00	CTRAMEL	73%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-02107
Client Sample ID: S17193162C (Batch 57717)
Sample Collection Date: 07/12/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02107-004
Date Received: 07/14/17
Report Date: 08/14/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.914	0.305	0.265	0.111	NP		pCi/L	ARS-010/EPA 903.0/904.0	08/14/17 8:21	CTRAMEL	90%
Ra-228	1.225	0.856	1.323	0.616	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/07/17 12:00	CTRAMEL	81%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-02107
Client Sample ID: S17193162D (Batch 57717)
Sample Collection Date: 07/12/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02107-005
Date Received: 07/14/17
Report Date: 08/14/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.180	0.149	0.218	0.090	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/14/17 8:21	CTRAMEL	94%
Ra-228	0.180	0.636	1.120	0.519	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/07/17 12:00	CTRAMEL	88%

Project Manager Review

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-02165
Client Sample ID: S17193162E (BATCH 57717)
Sample Collection Date: 07/12/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02165-001
Date Received: 07/20/17
Report Date: 08/09/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.908	0.269	0.154	0.059	NP		pCi/L	ARS-010/EPA 903.0/904.0	08/03/17 10:25	CTRAMEL	102%
Ra-228	1.268	0.926	1.457	0.688	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	07/27/17 12:11	CTRAMEL	95%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

Batch # 57717

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

INTERNATIONAL

QC Results Report

Sample Delivery Group: ARS1-17-02165

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-01493	LCS	RA-226	25.885	4.175	0.109	27.630	N/A	pCi/L	ARS-010/EPA 903	8/3/17 8:07	SC	94	75%-125%
ARS1-B17-01493	LCS	RA-228	34.437	5.749	1.041	39.784	N/A	pCi/L	ARS-010/EPA 904	8/3/17 8:07	SC	87	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-01493	MBL	RA-226	0.017	0.051	0.097	NA	U	pCi/L	ARS-010/EPA 903	8/3/17 8:07	SC
ARS1-B17-01493	MBL	RA-228	0.118	0.335	0.586	NA	U	pCi/L	ARS-010/EPA 904	8/3/17 8:07	SC

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-01493	LCSD	RA-226	25.885	4.175	28.276	4.560	N/A	pCi/L	ARS-010/EPA 903	8/3/17 8:07	SC	0.27	< 1
ARS1-B17-01493	LCSD	RA-228	34.437	5.749	34.101	5.697	N/A	pCi/L	ARS-010/EPA 904	8/3/17 8:07	SC	0.03	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-01493	LCSD	RA-226	25.885	4.175	28.276	4.560	N/A	pCi/L	ARS-010/EPA 903	8/3/17 8:07	SC	0.39	< 3
ARS1-B17-01493	LCSD	RA-228	34.437	5.749	34.101	5.697	N/A	pCi/L	ARS-010/EPA 904	8/3/17 8:07	SC	0.04	< 3

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

INTERNATIONAL

QC Results Report

Sample Delivery Group: ARS1-17-02107

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-01622	LCS	RA-226	21.318	3.453	0.115	27.493	N/A	pCi/L	ARS-010/EPA 903	8/14/17 10:20	CT	78	75%-125%
ARS1-B17-01622	LCS	RA-228	34.952	5.821	1.029	39.784	N/A	pCi/L	ARS-010/EPA 904	8/14/17 10:20	CT	88	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-01622	MBL	RA-226	0.092	0.072	0.101	NA	U	pCi/L	ARS-010/EPA 903	8/14/17 10:20	CT
ARS1-B17-01622	MBL	RA-228	-0.121	0.305	0.566	NA	U	pCi/L	ARS-010/EPA 904	8/14/17 10:20	CT

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-01622	LCSD	RA-226	21.318	3.453	27.250	4.397	N/A	pCi/L	ARS-010/EPA 903	8/14/17 10:20	CT	0.76	< 1
ARS1-B17-01622	LCSD	RA-228	34.952	5.821	38.530	6.389	N/A	pCi/L	ARS-010/EPA 904	8/14/17 10:20	CT	0.29	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-01622	LCSD	RA-226	21.318	3.453	27.250	4.397	N/A	pCi/L	ARS-010/EPA 903	8/14/17 10:20	CT	1.06	< 3
ARS1-B17-01622	LCSD	RA-228	34.952	5.821	38.530	6.389	N/A	pCi/L	ARS-010/EPA 904	8/14/17 10:20	CT	0.41	< 3

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

ARS INTERNATIONAL

2609 North River Road • Port Allen, Louisiana 70767

1 (800) 401-4277 • Fax (225) 381-2996

Notes (Case Narrative):

Comments:

1.0) All MDA/MDC values are calculated on a sample specific basis.
2.0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.
3.0) Data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.
4.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix. Modified analyses are indicated by the subsequent addition of "m" to the procedure number (i.e. 900.0M).
5.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than the actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
6.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228 (Gamma Spectroscopy only).
7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234 (Gamma Spectroscopy only).
8.0) All gamma spectroscopy was performed utilizing high purity germanium detectors (**HPGe**).
9.0) ARS makes every attempt to match sample density to calibrated density; however, in some cases, it is not practical or possible to do so and data results may be affected (Gamma Spectroscopy only).
10.0) Gamma spectroscopy results are calculated values based on the **ORTEC®** GammaVision ENV32 Analysis Engine.
11.0) ACLASS DOD and ISO 17025 certification applies only to the following analytes and methods: Gross Alpha and Gross Beta (EPA 900, SM7110B&C, SW846 9310); Radium 226 (EPA 903, EPA 903.1, SM 7500 Ra-B, SW846 9315); Radium 228 (EPA 904, SM 7500 Ra-B SW846 9320); Iodine-131(EPA 901.1); Uranium by ICPMS (EPA 200.8); Strontium 89/90 (EPA 905, Eichrom SRW01, HASL 300 Sr-03-RC); Tritium (EPA 906, EPA 906M); Gamma Emitters (EPA 901.1, SM7120B, HASL 300 Ga-01-R); Americium-241, Curium 242/244, Plutonium 239/240 and 241, Thorium 228/230/232, Uranium 234/233 and 238 (Eichrom ACW03 VBS); Lead 210 (HASL 300 Pb-01-RC, Eichrom OTW01); Polonium 210 (HASL 300 Po-01-RC, HASL 300 Po-02-RC); Technetium-99 (Eichrom TCW02, Eichrom TCS01M).

Method References:

1.0) **EPA 600/4-80-032**; Prescribed Procedures for the Measurements of Radioactivity in Drinking Water, August 1980.
2.0) **Standard Methods for the Examination of Water and Wastewater** (On-Line Edition)
3.0) **EPA SW-846**; Test Methods for Evaluating Solid Waste, (On-Line edition)
4.0) **EPA 600/4/79-020**; Methods for Chemical Analysis of Water and Waste, March 1983.
5.0) **HASL 300**; The Procedures Manual of the Environmental Measurements Laboratory, Volume I, 28th Edition February, 1997.

Definitions:

CRDL	Contract Required Detection Limit
CSU	Combined Standard Uncertainty
DLC	Decision Level Concentration (ANSI N42.23) or critical level
DO	Duplicate Original
DUP	Method Duplicate
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
MDA	Minimum Detectable Activity
MDC	(Minimum Detectable Concentration) minimum concentration of the analyte that ARS can detect utilizing the specific analysis
MBL	Method Blank
MS/MSD	Matrix Spike/Matrix Spike Duplicate
N/A	Not Applicable
NP	Not Provided
NR	Not Referenced
LOD	Limit of Detection
LOQ	Limit of Quantitation

Data Qualifiers:

B	The analyte is found in both the associated method blank and the sample. This flag indicates probable blank contamination.
D	Sample analysis accomplished through dilution.
J	The reported result is an estimated value above the limit of detection but outside of quantitation range (e.g., matrix interference was observed).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).
U	Activity is below the MDC, MDA, MDL, or LOD
N	The analyte is a tentatively identified compound using mass spectrometry or any non-customer requested compounds that are tentatively identified.
*	LCS/LCSD or MS/MSD fails RPD criteria.
S	Spike
SC	Subcontracted out to another qualified laboratory
H	Holding time exceeded

B Environmental Laboratory, LLC

1606 E Brazos Suite D Victoria, Texas 77901 ph. (361) 572-8224

Chain Of Custody Rec

Batch # 57717

TEMP UN-C: 4.6 | Page 1 of 1

TEMP Corr: 4.4

THERM ID# 3

X Check box if Billing is the same as Report Information

Customer / Report Information

Name: Coleto Creek Power

Attention: Rick Coleman

Address: P.O. Box 8; Fannin, TX 77960

Billing Information

Address:

Attention: PO #

Project: CCR Sampling

Comments:

Phone: 361-788-5145 FAX:

EMAIL: richard.coleman@dynegy.com

Requested Analysis | Completed By laboratory

Sample Information

Collected By: BL Smith

Matrix: DW - Drinking H20, S - Solid, WW - Waste H20, SL - Sludge, L - Liquid, w - Water

Container: TYPE, NUMBER, Size, Preservative

Requested Analysis: Metals* D, Cl, F*, SO4 A, pH A, TDS C, Ra226 & Ra228 E, Alk:Tot, Carb, BiCarb A, Diss Li & Mo F

Custody Seals Present: Yes ☐ No ☐ Intact: Yes ☐ No ☐

Client / Field Sample ID	Collected Date	Collected Time	G = Grab C = Composite	Matrix	TYPE	NUMBER	Size	Preservative	Metals*	Cl, F*, SO4	pH	TDS	Ra226 & Ra228	Alk:Tot, Carb, BiCarb	Diss Li & Mo	LAB Sample Number
MW-6	7-12-17	755	G	WW	P	6	1L, 500mL, 250mL	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X	S171931625
MW-7		832	G	WW	P	6	1L, 500mL, 250mL	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X	S17193162A
BV-1		1108	G	WW	P	6	1L, 500mL, 250mL	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X	S17193162B
BV-5		1031	G	WW	P	6	1L, 500mL, 250mL	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X	S17193162C
BV-10		1008	G	WW	P	6	1L, 500mL, 250mL	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X	S17193162D
BV-19		929	G	WW	P	6	1L, 500mL, 250mL	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X	S17193162E
			G	WW	P	6	1L, 500mL, 250mL	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X	

Required Turnaround: ☒ Routine (6-10 Business days) Expedite / Rush: ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business days ☐ 5 Business days ☐ Other ____ REMARKS:

Surcharge will apply to RUSH TAT Authorized BY:

Container Type: P=Plastic, G=Glass, V=Voa, O=Other

Carrier ID :

Relinquished By:		Date:	7-12-17	Time:	1615	Received By:		Date:	7-12-17	Time:	1615
Relinquished By:		Date:		Time:		Received By:		Date:		Time:	
Relinquished By		Date:		Time:		Received By:		Date:		Time:	

FLuoride: MAL 0.25 mg/L Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Mg,K,Na, & Hg

Batch # 57958

BatchNo: 57958

SAMPLE REPORT

T104704328-17-14

Business

Coleto Creek Power - R Coleman
PO Box 8
Fannin TX 77960
Att: Rick Coleman

Laboratory

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901
ph. 361-572-8224

Reference Information

Project: CCR Sampling

Printed: Friday, September 08, 2017

Re: Coleto Creek Power - R Coleman

Dear: Rick Coleman

Attached are the results for sample(s) received on 7/18/2017

The analytical results relate only to the samples tested.
All supporting quality data meets the requirements of NELAC unless noted in the case narrative section of the report.

This report contains 56 pages (including the cover page)

If you have any questions concerning this report, please do not hesitate to call (361) 572-8224 or Fax us at (361) 572-4115

Respectfully Submitted,

Kevin Baros

Laboratory Director

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57958 Page 2 of 56

Batch No: 57958

Sample Receipt Checklist

Date Received: 9/8/2017

Project: CCR Sampling | Received By:

Login completed by: | 9/8/2017
Signature | LoginDate:

Carrier Name: Walk In

Shipping container/cooler in good condition?	☑ YES	☐ NO	☐ Not Present
Custody seals intact on shipping container/cooler?	☐ YES	☐ NO	☑ Not Present
Custody seals intact on sample bottles?	☐ YES	☐ NO	☑ Not Present
Chain of Custody present?	☑ YES	☐ NO	
Chain of Custody signed when relinquished and received	☑ YES	☐ NO	
Chain of Custody agrees with sample labels?	☑ YES	☐ NO	
Samples in proper container/bottles?	☑ YES	☐ NO	
Sample containers intact?	☑ YES	☐ NO	
Sufficient sample volume for indicated tests?	☑ YES	☐ NO	
All samples received within holding times?	☑ YES	☐ NO	
Container/Temp Blank - temperature in compliance?	☑ YES	☐ NO	>0 <6 °C On Ice
Water - VOA vials have zero headspace? Bubble < 6mm?	☐ YES	☐ NO	☑ No VOA Vials submitted
Water - pH acceptable upon receipt?	☑ YES	☐ NO	☐ Not Applicable

*TEMP 4.6/4.4 | pH Adjusted? No | Checked By L. Vahrenkamp

Any No and/or N/A (not applicable) response must be detailed in the comments section below.

Client contacted: | PersonContacted:
Contacted by: | Date Contacted:

Regarding:

Comments:
Therm #3. HNO3 LoT # 2-42-12. pH Paper lot # 2-25-6.

Corrective Action:

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57958

Sample Report Information

Sample ID:	S171991640	Client ID:	Blank	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: Blank
Notes:

Batch No: 57958
Sampled: 7/18/2017 2:30 PM

Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	< 1	mg/L	EPA 300	K Baros	7/19/2017 13:27	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	< 20	mg/L	SM 2320 B		7/21/2017 10:27	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/21/2017 10:27	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	< 20	mg/L	SM 2320 B		7/21/2017 10:27	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	< 0.25	mg/L	EPA 300	K Baros	7/19/2017 13:27	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	6.16	SU	SM 4500-H+B	C Watts	7/18/2017 17:20					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	< 25	mg/L	SM2540C	C Watts	7/20/2017 14:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/26/2017 10:28					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	< 1	mg/L	EPA 300	K Baros	7/19/2017 13:27	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/18/2017 8:07					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57958

Sample Report Information

Sample ID:	S17199164A	Client ID:	MW-4	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #4
Notes:

Batch No: 57958
Sampled: 7/18/2017 2:12 PM

Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	101	mg/L	EPA 300	K Baros	7/19/2017 14:05	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	246	mg/L	SM 2320 B		7/21/2017 10:37	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/21/2017 10:37	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	246	mg/L	SM 2320 B		7/21/2017 10:37	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.63	mg/L	EPA 300	K Baros	7/19/2017 14:05	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	6.92	SU	SM 4500-H+B	C Watts	7/18/2017 17:20					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	717	mg/L	SM2540C	C Watts	7/20/2017 14:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/26/2017 11:28					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	157	mg/L	EPA 300	K Baros	7/19/2017 14:05	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/18/2017 8:07					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57958

Sample Report Information

Sample ID:	S17199164B	Client ID:	MW-8	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #8
Notes:

Batch No: 57958
Sampled: 7/18/2017 10:37 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	61	mg/L	EPA 300	K Baros	7/19/2017 14:43	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	256	mg/L	SM 2320 B		7/21/2017 10:47	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/21/2017 10:47	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	256	mg/L	SM 2320 B		7/21/2017 10:47	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.46	mg/L	EPA 300	K Baros	7/19/2017 14:43	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	6.97	SU	SM 4500-H+B	C Watts	7/18/2017 17:20					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	533	mg/L	SM2540C	C Watts	7/20/2017 14:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/26/2017 11:30					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	100	mg/L	EPA 300	K Baros	7/19/2017 14:43	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/17/2017 8:31					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57958

Sample Report Information

Sample ID:	S17199164C	Client ID:	BV-1	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV-1
Notes:

Batch No: 57958
Sampled: 7/18/2017 9:22 AM

Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	133	mg/L	EPA 300	K Baros	7/19/2017 15:21	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	332	mg/L	SM 2320 B		7/21/2017 11:00	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/21/2017 11:00	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	332	mg/L	SM 2320 B		7/21/2017 11:00	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.78	mg/L	EPA 300	K Baros	7/19/2017 15:21	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.08	SU	SM 4500-H+B	C Watts	7/18/2017 17:20					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	923	mg/L	SM2540C	C Watts	7/20/2017 14:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/26/2017 13:44					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	173	mg/L	EPA 300	K Baros	7/19/2017 15:21	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/17/2017 8:31					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57958

Sample Report Information

Sample ID:	S17199164D	Client ID:	BV-5	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV-5
Notes:

Batch No: 57958
Sampled: 7/18/2017 9:58 AM

Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	117	mg/L	EPA 300	K Baros	7/19/2017 16:37	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	389	mg/L	SM 2320 B		7/21/2017 11:14	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/21/2017 11:14	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	389	mg/L	SM 2320 B		7/21/2017 11:14	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.56	mg/L	EPA 300	K Baros	7/19/2017 16:37	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	6.92	SU	SM 4500-H+B	C Watts	7/18/2017 17:20					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	817	mg/L	SM2540C	C Watts	7/20/2017 14:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/26/2017 13:46					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	142	mg/L	EPA 300	K Baros	7/19/2017 16:37	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/17/2017 8:31					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57958

Sample Report Information

Sample ID:	S17199164E	Client ID:	BV-10	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV-10
Notes:

Batch No: 57958
Sampled: 7/18/2017 8:58 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	83	mg/L	EPA 300	K Baros	7/19/2017 17:15	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	287	mg/L	SM 2320 B		7/21/2017 11:23	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/21/2017 11:23	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	287	mg/L	SM 2320 B		7/21/2017 11:23	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.83	mg/L	EPA 300	K Baros	7/19/2017 17:15	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.4	SU	SM 4500-H+B	C Watts	7/18/2017 17:20					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	563	mg/L	SM2540C	C Watts	7/20/2017 14:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/26/2017 13:48					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	78	mg/L	EPA 300	K Baros	7/19/2017 17:15	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/17/2017 8:31					☑	DHL Cert No. T104704211-12-8

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57958

Sample Report Information

Sample ID:	S17199164F	Client ID:	BV-15	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV 15
Notes:

Batch No: 57958
Sampled: 7/18/2017 1:38 PM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	44	mg/L	EPA 300	K Baros	7/19/2017 17:54	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	205	mg/L	SM 2320 B		7/21/2017 11:30	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/21/2017 11:30	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	205	mg/L	SM 2320 B		7/21/2017 11:30	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.82	mg/L	EPA 300	K Baros	7/19/2017 17:54	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.23	SU	SM 4500-H+B	C Watts	7/18/2017 17:20					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	440	mg/L	SM2540C	C Watts	7/20/2017 14:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/26/2017 13:49					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	77	mg/L	EPA 300	K Baros	7/19/2017 17:54	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/17/2017 8:31					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57958

Sample Report Information

Sample ID:	S17199164G	Client ID:	BV-19	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV-19
Notes:

Batch No: 57958
Sampled: 7/18/2017 8:19 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	139	mg/L	EPA 300	K Baros	7/19/2017 18:32	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	323	mg/L	SM 2320 B		7/21/2017 11:42	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/21/2017 11:42	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	323	mg/L	SM 2320 B		7/21/2017 11:42	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.49	mg/L	EPA 300	K Baros	7/19/2017 18:32	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	6.91	SU	SM 4500-H+B	C Watts	7/18/2017 17:20					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	700	mg/L	SM2540C	C Watts	7/20/2017 14:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/26/2017 13:40					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	60	mg/L	EPA 300	K Baros	7/19/2017 18:32	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/17/2017 8:31					☑	DHL Cert No. T104704211-12-8

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57958

Sample Report Information

Sample ID:	S17199164H	Client ID:	BV-21	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV 21
Notes:

Batch No: 57958
Sampled: 7/18/2017 1:06 PM

Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	39	mg/L	EPA 300	K Baros	7/19/2017 21:42	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	235	mg/L	SM 2320 B		7/21/2017 12:08	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/21/2017 12:08	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	235	mg/L	SM 2320 B		7/21/2017 12:08	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.6	mg/L	EPA 300	K Baros	7/19/2017 21:42	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.09	SU	SM 4500-H+B	C Watts	7/18/2017 17:20					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	380	mg/L	SM2540C	C Watts	7/20/2017 14:00	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/26/2017 13:51					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	44	mg/L	EPA 300	K Baros	7/19/2017 21:42	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/17/2017 8:31					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57958

Sample Report Information

Sample ID:	S17199164I	Client ID:	BV-22	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: BV 22
Notes:

Batch No: 57958
Sampled: 7/18/2017 11:11 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	38	mg/L	EPA 300	K Baros	7/19/2017 22:20	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	239	mg/L	SM 2320 B		7/21/2017 12:16	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/21/2017 12:16	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	239	mg/L	SM 2320 B		7/21/2017 12:16	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.53	mg/L	EPA 300	K Baros	7/19/2017 22:20	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.13	SU	SM 4500-H+B	C Watts	7/18/2017 17:20					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	397	mg/L	SM2540C	C Watts	7/24/2017 17:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	c	#			7/26/2017 13:53					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	28	mg/L	EPA 300	K Baros	7/19/2017 22:20	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	c	#			8/14/2017 8:21					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57958

Sample Report Information

Sample ID:	S17199164J	Client ID:	Dup 1	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: Dup
Notes:

Batch No: 57958
Sampled: 7/18/2017 12:00 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	133	mg/L	EPA 300	K Baros	7/19/2017 22:58	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	378	mg/L	SM 2320 B		7/21/2017 12:29	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/21/2017 12:29	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	378	mg/L	SM 2320 B		7/21/2017 12:29	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.77	mg/L	EPA 300	K Baros	7/19/2017 22:58	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.16	SU	SM 4500-H+B	C Watts	7/18/2017 17:20					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	877	mg/L	SM2540C	C Watts	7/24/2017 17:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/26/2017 13:55					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	173	mg/L	EPA 300	K Baros	7/19/2017 22:58	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/14/2017 8:21					☑	ARS International

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57958

QA Summary Report

Parameter	ID	Result	Ref Value	Amt Added	LOQ	Qualifer	Control	Flag	Comments
.Method Blank									
.- Chloride, IC	Q172111137	<1mg/L	0		1		1		Blank Acceptable.
7/19/2017 12:11									
Fluoride, IC	Q172111137	<0.25mg/L	0		0.25		0.25		Blank Acceptable.
7/19/2017 12:11									
Solids, Total Dissolved	Q172051418	<25mg/L	0		10		25		Blank Acceptable.
7/20/2017 14:00									
Solids, Total Dissolved	Q172080956	<25mg/L	0		10		25		Blank Acceptable.
7/24/2017 17:30									
Sulfate, IC	Q172111137	<1mg/L	0		1		1		Blank Acceptable.
7/19/2017 12:11									
Duplicate									
pH (Standard Units)	Q17199174A	6.93SU	6.91		2	0.3%	20		Duplicate RPD Acceptable.
7/18/2017 17:20									
Solids, Total Dissolved	Q172080957	3720mg/L	3710		10	0.3%	20		Duplicate RPD Acceptable.
7/24/2017 17:30									
Solids, Total Dissolved	Q172051419	700mg/L	700		10	0.0%	20		Duplicate RPD Acceptable.
7/20/2017 14:00									
Laboratory Control Standard									
.- Chloride, IC	Q172111138	25.22mg/L	25		1	100.9%	80 - 120		Standard Recovery Acceptable.
7/19/2017 15:59						0.9%	20		Standard RPD Acceptable.
Fluoride, IC	Q172111138	1.97mg/L	2		0.25	98.5%	80 - 120		Standard Recovery Acceptable.
7/19/2017 15:59						1.5%	20		Standard RPD Acceptable.
pH (Standard Units)	Q171991743	7.02SU	7		2	100.3%	80 - 120		Standard Recovery Acceptable.
7/18/2017 17:20						0.3%	20		Standard RPD Acceptable.
Sulfate, IC	Q172111138	25.3mg/L	25		1	101.2%	80 - 120		Standard Recovery Acceptable.
7/19/2017 15:59						1.2%	20		Standard RPD Acceptable.
Matrix Spike									
.- Chloride, IC	Q17211113A	149.7mg/L	150	25	1	98.8%	80 - 120		Spike Recovery Acceptable.
7/19/2017 19:10						0.2%	20		Spike RPD Acceptable.
Fluoride, IC	Q17211113A	2.34mg/L	2.45	2	0.25	94.5%	80 - 120		Spike Recovery Acceptable.
7/19/2017 19:10						4.6%	20		Spike RPD Acceptable.
Sulfate, IC	Q17211113A	79.1mg/L	79.2	25	1	99.6%	70 - 130		Spike Recovery Acceptable.
7/19/2017 19:10						0.1%	20		Spike RPD Acceptable.
Matrix Spike Dup									
.- Chloride, IC	Q172111139	148.5mg/L	150	25	1	94.0%	80 - 120		Spike Recovery Acceptable.
7/19/2017 19:48						1.0%	20		Spike RPD Acceptable.
Fluoride, IC	Q172111139	2.301mg/L	2.45	2	0.25	92.6%	80 - 120		Spike Recovery Acceptable.
7/19/2017 19:48						6.3%	20		Spike RPD Acceptable.
Sulfate, IC	Q172111139	78.3mg/L	79.2	25	1	96.4%	70 - 130		Spike Recovery Acceptable.
7/19/2017 19:48						1.1%	20		Spike RPD Acceptable.

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901

BatchNo: 57958

Flag and Qualifier Legend

Negative - Result Detected	***MDL = Method Detection Limit***	***DF = Dilution Factor***
Caution - Problem Detected	*LOQ = Limit of Quantitation*	***j = Analyte detected between MDL and LOQ***
Warning - Null Value	***S = surrogate standard out of limit***	***H = sample out of hold time***

MS, MSD, RPD- Failure may occur due to matrix interference, data released per QA plan

Friday, September 08, 2017 **B Environmental - LDMS QA Report Summary**

Note: Thank you!

DHL Analytical, Inc. **Date:** *31-Jul-17*

CLIENT: B-Environmental
Project: Coleto Creek Power
Lab Order: 1707179

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition and Standard Methods.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives except where noted in the following. For Total Metals Analysis, the recoveries of up to three analytes for the Matrix Spike and Matrix Spike Duplicate (1707179-08 MS/MSD) were above the method control limits. These are flagged accordingly in the QC Summary Report. These analytes were within method control limits in the associated LCS. No further corrective action was taken.

For Dissolved Metals Analysis, the RPD of Lithium for the Serial Dilution (1707202-13 SD) was marginally above the method control limit. This is flagged accordingly in the QC Summary Report. This analyte was within method control limits in the associated Post Digestion Spike. No further corrective action was taken.

For Total/Dissolved Metals Analysis, the results of Dissolved Lithium/Molybdenum for nine samples were slightly higher than the results of Total Lithium/Molybdenum. The results were within acceptable analytical variation limits. No further corrective action was taken.

DHL Analytical, Inc.

Date: *01-Aug-17*

CLIENT:	B-Environmental	**Client Sample ID:**	Blank
Project:	Coleto Creek Power	**Lab ID:**	1707179-01
Project No:	CCR Sampling (57958)	**Collection Date:**	07/18/17 02:30 PM
Lab Order:	1707179	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	ND	5.00	10.0		µg/L	1	07/25/17 03:28 PM
Dissolved Molybdenum	ND	2.00	5.00		µg/L	1	07/25/17 03:28 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **RO**
Antimony	ND	0.800	2.50		µg/L	1	07/26/17 10:28 AM
Arsenic	ND	2.00	5.00		µg/L	1	07/26/17 10:28 AM
Barium	ND	3.00	10.0		µg/L	1	07/26/17 10:28 AM
Beryllium	ND	0.300	1.00		µg/L	1	07/26/17 10:28 AM
Boron	ND	10.0	30.0		µg/L	1	07/26/17 10:28 AM
Cadmium	ND	0.300	1.00		µg/L	1	07/26/17 10:28 AM
Calcium	ND	100	300		µg/L	1	07/26/17 10:28 AM
Chromium	ND	2.00	5.00		µg/L	1	07/26/17 10:28 AM
Cobalt	ND	3.00	5.00		µg/L	1	07/26/17 10:28 AM
Lead	ND	0.300	1.00		µg/L	1	07/26/17 10:28 AM
Lithium	ND	5.00	10.0		µg/L	1	07/26/17 10:28 AM
Magnesium	ND	100	300		µg/L	1	07/26/17 10:28 AM
Molybdenum	ND	2.00	5.00		µg/L	1	07/26/17 10:28 AM
Potassium	ND	100	300		µg/L	1	07/26/17 10:28 AM
Selenium	ND	2.00	5.00		µg/L	1	07/26/17 10:28 AM
Sodium	163	100	300	J	µg/L	1	07/26/17 10:28 AM
Thallium	ND	0.500	1.50		µg/L	1	07/26/17 10:28 AM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	ND	0.0800	0.200		µg/L	1	07/25/17 12:24 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.32	1	07/21/17 10:27 AM
Alkalinity, Carbonate (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.32	1	07/21/17 10:27 AM
Alkalinity, Hydroxide (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.32	1	07/21/17 10:27 AM
Alkalinity, Total (As CaCO3)	ND	20.0	20.0		mg/L @ pH 4.32	1	07/21/17 10:27 AM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
	C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
	E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
	RL	Reporting Limit	S	Spike Recovery outside control limits
	N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *01-Aug-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-4
Project:	Coleto Creek Power	**Lab ID:**	1707179-02
Project No:	CCR Sampling (57958)	**Collection Date:**	07/18/17 02:12 PM
Lab Order:	1707179	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	19.4	5.00	10.0		µg/L	1	07/25/17 03:30 PM
Dissolved Molybdenum	ND	2.00	5.00		µg/L	1	07/25/17 03:30 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **RO**
Antimony	ND	0.800	2.50		µg/L	1	07/26/17 11:28 AM
Arsenic	8.15	2.00	5.00		µg/L	1	07/26/17 11:28 AM
Barium	54.9	3.00	10.0		µg/L	1	07/26/17 11:28 AM
Beryllium	ND	0.300	1.00		µg/L	1	07/26/17 11:28 AM
Boron	292	10.0	30.0		µg/L	1	07/26/17 11:28 AM
Cadmium	ND	0.300	1.00		µg/L	1	07/26/17 11:28 AM
Calcium	108000	1000	3000		µg/L	10	07/26/17 10:30 AM
Chromium	ND	2.00	5.00		µg/L	1	07/26/17 11:28 AM
Cobalt	7.71	3.00	5.00		µg/L	1	07/26/17 11:28 AM
Lead	0.397	0.300	1.00	J	µg/L	1	07/26/17 11:28 AM
Lithium	18.3	5.00	10.0		µg/L	1	07/26/17 11:28 AM
Magnesium	19400	100	300		µg/L	1	07/26/17 11:28 AM
Molybdenum	ND	2.00	5.00		µg/L	1	07/26/17 11:28 AM
Potassium	1500	100	300		µg/L	1	07/26/17 11:28 AM
Selenium	ND	2.00	5.00		µg/L	1	07/26/17 11:28 AM
Sodium	109000	1000	3000		µg/L	10	07/26/17 10:30 AM
Thallium	ND	0.500	1.50		µg/L	1	07/26/17 11:28 AM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	ND	0.0800	0.200		µg/L	1	07/25/17 12:26 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	246	10.0	20.0		mg/L @ pH 4.51	1	07/21/17 10:37 AM
Alkalinity, Carbonate (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.51	1	07/21/17 10:37 AM
Alkalinity, Hydroxide (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.51	1	07/21/17 10:37 AM
Alkalinity, Total (As CaCO3)	246	20.0	20.0		mg/L @ pH 4.51	1	07/21/17 10:37 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *01-Aug-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-8
Project:	Coleto Creek Power	**Lab ID:**	1707179-03
Project No:	CCR Sampling (57958)	**Collection Date:**	07/18/17 10:37 AM
Lab Order:	1707179	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	11.7	5.00	10.0		µg/L	1	07/25/17 03:32 PM
Dissolved Molybdenum	17.3	2.00	5.00		µg/L	1	07/25/17 03:32 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **RO**
Antimony	ND	0.800	2.50		µg/L	1	07/26/17 11:30 AM
Arsenic	9.37	2.00	5.00		µg/L	1	07/26/17 11:30 AM
Barium	63.5	3.00	10.0		µg/L	1	07/26/17 11:30 AM
Beryllium	ND	0.300	1.00		µg/L	1	07/26/17 11:30 AM
Boron	1250	200	600		µg/L	20	07/26/17 10:32 AM
Cadmium	ND	0.300	1.00		µg/L	1	07/26/17 11:30 AM
Calcium	92900	2000	6000		µg/L	20	07/26/17 10:32 AM
Chromium	ND	2.00	5.00		µg/L	1	07/26/17 11:30 AM
Cobalt	35.2	3.00	5.00		µg/L	1	07/26/17 11:30 AM
Lead	ND	0.300	1.00		µg/L	1	07/26/17 11:30 AM
Lithium	11.8	5.00	10.0		µg/L	1	07/26/17 11:30 AM
Magnesium	14200	100	300		µg/L	1	07/26/17 11:30 AM
Molybdenum	18.5	2.00	5.00		µg/L	1	07/26/17 11:30 AM
Potassium	1070	100	300		µg/L	1	07/26/17 11:30 AM
Selenium	ND	2.00	5.00		µg/L	1	07/26/17 11:30 AM
Sodium	88800	2000	6000		µg/L	20	07/26/17 10:32 AM
Thallium	ND	0.500	1.50		µg/L	1	07/26/17 11:30 AM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	ND	0.0800	0.200		µg/L	1	07/25/17 12:28 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	256	10.0	20.0		mg/L @ pH 4.52	1	07/21/17 10:47 AM
Alkalinity, Carbonate (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.52	1	07/21/17 10:47 AM
Alkalinity, Hydroxide (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.52	1	07/21/17 10:47 AM
Alkalinity, Total (As CaCO3)	256	20.0	20.0		mg/L @ pH 4.52	1	07/21/17 10:47 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *01-Aug-17*

CLIENT:	B-Environmental	**Client Sample ID:**	BV-1
Project:	Coleto Creek Power	**Lab ID:**	1707179-04
Project No:	CCR Sampling (57958)	**Collection Date:**	07/18/17 09:22 AM
Lab Order:	1707179	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	16.3	5.00	10.0		µg/L	1	07/25/17 03:34 PM
Dissolved Molybdenum	5.28	2.00	5.00		µg/L	1	07/25/17 03:34 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **RO**
Antimony	ND	0.800	2.50		µg/L	1	07/26/17 01:44 PM
Arsenic	10.2	2.00	5.00		µg/L	1	07/26/17 01:44 PM
Barium	43.8	3.00	10.0		µg/L	1	07/26/17 01:44 PM
Beryllium	ND	0.300	1.00		µg/L	1	07/26/17 01:44 PM
Boron	1260	100	300		µg/L	10	07/26/17 10:33 AM
Cadmium	ND	0.300	1.00		µg/L	1	07/26/17 01:44 PM
Calcium	80200	1000	3000		µg/L	10	07/26/17 10:33 AM
Chromium	9.73	2.00	5.00		µg/L	1	07/26/17 01:44 PM
Cobalt	381	3.00	5.00		µg/L	1	07/26/17 01:44 PM
Lead	4.15	0.300	1.00		µg/L	1	07/26/17 01:44 PM
Lithium	15.5	5.00	10.0		µg/L	1	07/26/17 01:44 PM
Magnesium	11000	100	300		µg/L	1	07/26/17 01:44 PM
Molybdenum	4.83	2.00	5.00	J	µg/L	1	07/26/17 01:44 PM
Potassium	629	100	300		µg/L	1	07/26/17 01:44 PM
Selenium	ND	2.00	5.00		µg/L	1	07/26/17 01:44 PM
Sodium	257000	2000	6000		µg/L	20	08/01/17 10:47 AM
Thallium	ND	0.500	1.50		µg/L	1	07/26/17 01:44 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	ND	0.0800	0.200		µg/L	1	07/25/17 12:30 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	332	10.0	20.0		mg/L @ pH 4.52	1	07/21/17 11:00 AM
Alkalinity, Carbonate (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.52	1	07/21/17 11:00 AM
Alkalinity, Hydroxide (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.52	1	07/21/17 11:00 AM
Alkalinity, Total (As CaCO3)	332	20.0	20.0		mg/L @ pH 4.52	1	07/21/17 11:00 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *01-Aug-17*

CLIENT:	B-Environmental	**Client Sample ID:**	BV-5
Project:	Coleto Creek Power	**Lab ID:**	1707179-05
Project No:	CCR Sampling (57958)	**Collection Date:**	07/18/17 09:58 AM
Lab Order:	1707179	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	21.7	5.00	10.0		µg/L	1	07/25/17 03:36 PM
Dissolved Molybdenum	9.05	2.00	5.00		µg/L	1	07/25/17 03:36 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **RO**
Antimony	ND	0.800	2.50		µg/L	1	07/26/17 01:46 PM
Arsenic	9.51	2.00	5.00		µg/L	1	07/26/17 01:46 PM
Barium	57.8	3.00	10.0		µg/L	1	07/26/17 01:46 PM
Beryllium	ND	0.300	1.00		µg/L	1	07/26/17 01:46 PM
Boron	1170	100	300		µg/L	10	07/26/17 10:35 AM
Cadmium	ND	0.300	1.00		µg/L	1	07/26/17 01:46 PM
Calcium	143000	1000	3000		µg/L	10	07/26/17 10:35 AM
Chromium	7.39	2.00	5.00		µg/L	1	07/26/17 01:46 PM
Cobalt	45.3	3.00	5.00		µg/L	1	07/26/17 01:46 PM
Lead	2.88	0.300	1.00		µg/L	1	07/26/17 01:46 PM
Lithium	22.0	5.00	10.0		µg/L	1	07/26/17 01:46 PM
Magnesium	19000	100	300		µg/L	1	07/26/17 01:46 PM
Molybdenum	8.30	2.00	5.00		µg/L	1	07/26/17 01:46 PM
Potassium	577	100	300		µg/L	1	07/26/17 01:46 PM
Selenium	ND	2.00	5.00		µg/L	1	07/26/17 01:46 PM
Sodium	188000	1000	3000		µg/L	10	07/26/17 10:35 AM
Thallium	ND	0.500	1.50		µg/L	1	07/26/17 01:46 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	ND	0.0800	0.200		µg/L	1	07/25/17 12:33 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	389	10.0	20.0		mg/L @ pH 4.52	1	07/21/17 11:14 AM
Alkalinity, Carbonate (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.52	1	07/21/17 11:14 AM
Alkalinity, Hydroxide (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.52	1	07/21/17 11:14 AM
Alkalinity, Total (As CaCO3)	389	20.0	20.0		mg/L @ pH 4.52	1	07/21/17 11:14 AM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
	C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
	E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
	RL	Reporting Limit	S	Spike Recovery outside control limits
	N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *01-Aug-17*

CLIENT:	B-Environmental	**Client Sample ID:**	BV-10
Project:	Coleto Creek Power	**Lab ID:**	1707179-06
Project No:	CCR Sampling (57958)	**Collection Date:**	07/18/17 08:58 AM
Lab Order:	1707179	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	11.7	5.00	10.0		µg/L	1	07/25/17 03:38 PM
Dissolved Molybdenum	8.56	2.00	5.00		µg/L	1	07/25/17 03:38 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **RO**
Antimony	ND	0.800	2.50		µg/L	1	07/26/17 01:48 PM
Arsenic	12.1	2.00	5.00		µg/L	1	07/26/17 01:48 PM
Barium	41.7	3.00	10.0		µg/L	1	07/26/17 01:48 PM
Beryllium	ND	0.300	1.00		µg/L	1	07/26/17 01:48 PM
Boron	1040	100	300		µg/L	10	07/26/17 10:37 AM
Cadmium	ND	0.300	1.00		µg/L	1	07/26/17 01:48 PM
Calcium	44700	1000	3000		µg/L	10	07/26/17 10:37 AM
Chromium	4.60	2.00	5.00	J	µg/L	1	07/26/17 01:48 PM
Cobalt	210	3.00	5.00		µg/L	1	07/26/17 01:48 PM
Lead	5.30	0.300	1.00		µg/L	1	07/26/17 01:48 PM
Lithium	10.6	5.00	10.0		µg/L	1	07/26/17 01:48 PM
Magnesium	7050	100	300		µg/L	1	07/26/17 01:48 PM
Molybdenum	7.92	2.00	5.00		µg/L	1	07/26/17 01:48 PM
Potassium	688	100	300		µg/L	1	07/26/17 01:48 PM
Selenium	ND	2.00	5.00		µg/L	1	07/26/17 01:48 PM
Sodium	168000	1000	3000		µg/L	10	07/26/17 10:37 AM
Thallium	ND	0.500	1.50		µg/L	1	07/26/17 01:48 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	ND	0.0800	0.200		µg/L	1	07/25/17 12:35 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	287	10.0	20.0		mg/L @ pH 4.52	1	07/21/17 11:23 AM
Alkalinity, Carbonate (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.52	1	07/21/17 11:23 AM
Alkalinity, Hydroxide (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.52	1	07/21/17 11:23 AM
Alkalinity, Total (As CaCO3)	287	20.0	20.0		mg/L @ pH 4.52	1	07/21/17 11:23 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *01-Aug-17*

CLIENT:	B-Environmental	**Client Sample ID:**	BV-15
Project:	Coleto Creek Power	**Lab ID:**	1707179-07
Project No:	CCR Sampling (57958)	**Collection Date:**	07/18/17 01:38 PM
Lab Order:	1707179	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	7.22	5.00	10.0	J	µg/L	1	07/25/17 03:40 PM
Dissolved Molybdenum	18.8	2.00	5.00		µg/L	1	07/25/17 03:40 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **RO**
Antimony	ND	0.800	2.50		µg/L	1	07/26/17 01:49 PM
Arsenic	8.92	2.00	5.00		µg/L	1	07/26/17 01:49 PM
Barium	45.4	3.00	10.0		µg/L	1	07/26/17 01:49 PM
Beryllium	ND	0.300	1.00		µg/L	1	07/26/17 01:49 PM
Boron	1170	100	300		µg/L	10	07/26/17 10:39 AM
Cadmium	ND	0.300	1.00		µg/L	1	07/26/17 01:49 PM
Calcium	69900	1000	3000		µg/L	10	07/26/17 10:39 AM
Chromium	11.7	2.00	5.00		µg/L	1	07/26/17 01:49 PM
Cobalt	13.8	3.00	5.00		µg/L	1	07/26/17 01:49 PM
Lead	4.46	0.300	1.00		µg/L	1	07/26/17 01:49 PM
Lithium	6.81	5.00	10.0	J	µg/L	1	07/26/17 01:49 PM
Magnesium	8660	100	300		µg/L	1	07/26/17 01:49 PM
Molybdenum	18.0	2.00	5.00		µg/L	1	07/26/17 01:49 PM
Potassium	1100	100	300		µg/L	1	07/26/17 01:49 PM
Selenium	ND	2.00	5.00		µg/L	1	07/26/17 01:49 PM
Sodium	78700	1000	3000		µg/L	10	07/26/17 10:39 AM
Thallium	ND	0.500	1.50		µg/L	1	07/26/17 01:49 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	ND	0.0800	0.200		µg/L	1	07/25/17 12:37 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	205	10.0	20.0		mg/L @ pH 4.51	1	07/21/17 11:30 AM
Alkalinity, Carbonate (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.51	1	07/21/17 11:30 AM
Alkalinity, Hydroxide (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.51	1	07/21/17 11:30 AM
Alkalinity, Total (As CaCO3)	205	20.0	20.0		mg/L @ pH 4.51	1	07/21/17 11:30 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *01-Aug-17*

CLIENT:	B-Environmental	**Client Sample ID:**	BV-19
Project:	Coleto Creek Power	**Lab ID:**	1707179-08
Project No:	CCR Sampling (57958)	**Collection Date:**	07/18/17 08:19 AM
Lab Order:	1707179	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	14.6	5.00	10.0		µg/L	1	07/25/17 03:24 PM
Dissolved Molybdenum	4.97	2.00	5.00	J	µg/L	1	07/25/17 03:24 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **RO**
Antimony	ND	0.800	2.50		µg/L	1	07/26/17 01:40 PM
Arsenic	8.10	2.00	5.00		µg/L	1	07/26/17 01:40 PM
Barium	91.0	3.00	10.0		µg/L	1	07/26/17 01:40 PM
Beryllium	ND	0.300	1.00		µg/L	1	07/26/17 01:40 PM
Boron	836	100	300		µg/L	10	07/26/17 10:24 AM
Cadmium	ND	0.300	1.00		µg/L	1	07/26/17 01:40 PM
Calcium	125000	1000	3000		µg/L	10	07/26/17 10:24 AM
Chromium	ND	2.00	5.00		µg/L	1	07/26/17 01:40 PM
Cobalt	ND	3.00	5.00		µg/L	1	07/26/17 01:40 PM
Lead	ND	0.300	1.00		µg/L	1	07/26/17 01:40 PM
Lithium	15.4	5.00	10.0		µg/L	1	07/26/17 01:40 PM
Magnesium	25900	1000	3000		µg/L	10	07/26/17 10:24 AM
Molybdenum	4.76	2.00	5.00	J	µg/L	1	07/26/17 01:40 PM
Potassium	682	100	300		µg/L	1	07/26/17 01:40 PM
Selenium	ND	2.00	5.00		µg/L	1	07/26/17 01:40 PM
Sodium	94600	1000	3000		µg/L	10	07/26/17 10:24 AM
Thallium	ND	0.500	1.50		µg/L	1	07/26/17 01:40 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	ND	0.0800	0.200		µg/L	1	07/25/17 12:39 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	323	10.0	20.0		mg/L @ pH 4.52	1	07/21/17 11:42 AM
Alkalinity, Carbonate (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.52	1	07/21/17 11:42 AM
Alkalinity, Hydroxide (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.52	1	07/21/17 11:42 AM
Alkalinity, Total (As CaCO3)	323	20.0	20.0		mg/L @ pH 4.52	1	07/21/17 11:42 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *01-Aug-17*

CLIENT:	B-Environmental	**Client Sample ID:**	BV-21
Project:	Coleto Creek Power	**Lab ID:**	1707179-09
Project No:	CCR Sampling (57958)	**Collection Date:**	07/18/17 01:06 PM
Lab Order:	1707179	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	5.50	5.00	10.0	J	µg/L	1	07/25/17 03:42 PM
Dissolved Molybdenum	2.53	2.00	5.00	J	µg/L	1	07/25/17 03:42 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **RO**
Antimony	ND	0.800	2.50		µg/L	1	07/26/17 01:51 PM
Arsenic	115	2.00	5.00		µg/L	1	07/26/17 01:51 PM
Barium	101	3.00	10.0		µg/L	1	07/26/17 01:51 PM
Beryllium	ND	0.300	1.00		µg/L	1	07/26/17 01:51 PM
Boron	618	100	300		µg/L	10	07/26/17 10:40 AM
Cadmium	ND	0.300	1.00		µg/L	1	07/26/17 01:51 PM
Calcium	84400	1000	3000		µg/L	10	07/26/17 10:40 AM
Chromium	ND	2.00	5.00		µg/L	1	07/26/17 01:51 PM
Cobalt	7.84	3.00	5.00		µg/L	1	07/26/17 01:51 PM
Lead	0.507	0.300	1.00	J	µg/L	1	07/26/17 01:51 PM
Lithium	ND	5.00	10.0		µg/L	1	07/26/17 01:51 PM
Magnesium	8530	100	300		µg/L	1	07/26/17 01:51 PM
Molybdenum	2.39	2.00	5.00	J	µg/L	1	07/26/17 01:51 PM
Potassium	809	100	300		µg/L	1	07/26/17 01:51 PM
Selenium	ND	2.00	5.00		µg/L	1	07/26/17 01:51 PM
Sodium	59300	1000	3000		µg/L	10	07/26/17 10:40 AM
Thallium	ND	0.500	1.50		µg/L	1	07/26/17 01:51 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	ND	0.0800	0.200		µg/L	1	07/25/17 12:51 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	235	10.0	20.0		mg/L @ pH 4.51	1	07/21/17 12:08 PM
Alkalinity, Carbonate (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.51	1	07/21/17 12:08 PM
Alkalinity, Hydroxide (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.51	1	07/21/17 12:08 PM
Alkalinity, Total (As CaCO3)	235	20.0	20.0		mg/L @ pH 4.51	1	07/21/17 12:08 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *01-Aug-17*

CLIENT:	B-Environmental	**Client Sample ID:**	BV-22
Project:	Coleto Creek Power	**Lab ID:**	1707179-10
Project No:	CCR Sampling (57958)	**Collection Date:**	07/18/17 11:11 AM
Lab Order:	1707179	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	7.72	5.00	10.0	J	µg/L	1	07/25/17 03:44 PM
Dissolved Molybdenum	8.90	2.00	5.00		µg/L	1	07/25/17 03:44 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **RO**
Antimony	ND	0.800	2.50		µg/L	1	07/26/17 01:53 PM
Arsenic	6.18	2.00	5.00		µg/L	1	07/26/17 01:53 PM
Barium	55.3	3.00	10.0		µg/L	1	07/26/17 01:53 PM
Beryllium	ND	0.300	1.00		µg/L	1	07/26/17 01:53 PM
Boron	608	100	300		µg/L	10	07/26/17 10:42 AM
Cadmium	ND	0.300	1.00		µg/L	1	07/26/17 01:53 PM
Calcium	95800	1000	3000		µg/L	10	07/26/17 10:42 AM
Chromium	ND	2.00	5.00		µg/L	1	07/26/17 01:53 PM
Cobalt	ND	3.00	5.00		µg/L	1	07/26/17 01:53 PM
Lead	1.41	0.300	1.00		µg/L	1	07/26/17 01:53 PM
Lithium	7.68	5.00	10.0	J	µg/L	1	07/26/17 01:53 PM
Magnesium	10500	100	300		µg/L	1	07/26/17 01:53 PM
Molybdenum	8.29	2.00	5.00		µg/L	1	07/26/17 01:53 PM
Potassium	1030	100	300		µg/L	1	07/26/17 01:53 PM
Selenium	ND	2.00	5.00		µg/L	1	07/26/17 01:53 PM
Sodium	60400	1000	3000		µg/L	10	07/26/17 10:42 AM
Thallium	ND	0.500	1.50		µg/L	1	07/26/17 01:53 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	ND	0.0800	0.200		µg/L	1	07/25/17 12:53 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	239	10.0	20.0		mg/L @ pH 4.51	1	07/21/17 12:16 PM
Alkalinity, Carbonate (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.51	1	07/21/17 12:16 PM
Alkalinity, Hydroxide (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.51	1	07/21/17 12:16 PM
Alkalinity, Total (As CaCO3)	239	20.0	20.0		mg/L @ pH 4.51	1	07/21/17 12:16 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *01-Aug-17*

CLIENT:	B-Environmental	**Client Sample ID:**	Dup
Project:	Coleto Creek Power	**Lab ID:**	1707179-11
Project No:	CCR Sampling (57958)	**Collection Date:**	07/18/17
Lab Order:	1707179	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	16.5	5.00	10.0		µg/L	1	07/27/17 03:56 PM
Dissolved Molybdenum	5.03	2.00	5.00		µg/L	1	07/27/17 03:56 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **RO**
Antimony	ND	0.800	2.50		µg/L	1	07/26/17 01:55 PM
Arsenic	10.1	2.00	5.00		µg/L	1	07/26/17 01:55 PM
Barium	42.8	3.00	10.0		µg/L	1	07/26/17 01:55 PM
Beryllium	ND	0.300	1.00		µg/L	1	07/26/17 01:55 PM
Boron	1210	100	300		µg/L	10	07/26/17 11:01 AM
Cadmium	ND	0.300	1.00		µg/L	1	07/26/17 01:55 PM
Calcium	75400	1000	3000		µg/L	10	07/26/17 11:01 AM
Chromium	8.95	2.00	5.00		µg/L	1	07/26/17 01:55 PM
Cobalt	383	3.00	5.00		µg/L	1	07/26/17 01:55 PM
Lead	3.85	0.300	1.00		µg/L	1	07/26/17 01:55 PM
Lithium	15.7	5.00	10.0		µg/L	1	07/26/17 01:55 PM
Magnesium	11000	100	300		µg/L	1	07/26/17 01:55 PM
Molybdenum	4.89	2.00	5.00	J	µg/L	1	07/26/17 01:55 PM
Potassium	537	100	300		µg/L	1	07/26/17 01:55 PM
Selenium	ND	2.00	5.00		µg/L	1	07/26/17 01:55 PM
Sodium	247000	1000	3000		µg/L	10	07/26/17 11:01 AM
Thallium	ND	0.500	1.50		µg/L	1	07/26/17 01:55 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	ND	0.0800	0.200		µg/L	1	07/25/17 01:00 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	378	10.0	20.0		mg/L @ pH 4.53	1	07/21/17 12:29 PM
Alkalinity, Carbonate (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.53	1	07/21/17 12:29 PM
Alkalinity, Hydroxide (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.53	1	07/21/17 12:29 PM
Alkalinity, Total (As CaCO3)	378	20.0	20.0		mg/L @ pH 4.53	1	07/21/17 12:29 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *31-Jul-17*

CLIENT: B-Environmental
Work Order: 1707179
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: **CETAC2_HG_170725A**

The QC data in batch 81574 applies to the following samples: 1707179-01A, 1707179-02A, 1707179-03A, 1707179-04A, 1707179-05A, 1707179-06A, 1707179-07A, 1707179-08A, 1707179-09A, 1707179-10A, 1707179-11A

Sample ID **MB-81574** Batch ID: **81574** TestNo: **SW7470A** Units: **µg/L**
SampType: **MBLK** Run ID: **CETAC2_HG_170725A** Analysis Date: **7/25/2017 12:17:14 PM** Prep Date: **7/24/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.200								

Sample ID **LCS-81574** Batch ID: **81574** TestNo: **SW7470A** Units: **µg/L**
SampType: **LCS** Run ID: **CETAC2_HG_170725A** Analysis Date: **7/25/2017 12:19:30 PM** Prep Date: **7/24/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	2.03	0.200	2.000	0	102	85	115			

Sample ID **LCSD-81574** Batch ID: **81574** TestNo: **SW7470A** Units: **µg/L**
SampType: **LCSD** Run ID: **CETAC2_HG_170725A** Analysis Date: **7/25/2017 12:21:46 PM** Prep Date: **7/24/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	2.03	0.200	2.000	0	102	85	115	0	15	

Sample ID **1707179-08A SD** Batch ID: **81574** TestNo: **SW7470A** Units: **µg/L**
SampType: **SD** Run ID: **CETAC2_HG_170725A** Analysis Date: **7/25/2017 12:42:09 PM** Prep Date: **7/24/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0	1.00	0	0				0	10	

Sample ID **1707179-08A PDS** Batch ID: **81574** TestNo: **SW7470A** Units: **µg/L**
SampType: **PDS** Run ID: **CETAC2_HG_170725A** Analysis Date: **7/25/2017 12:44:25 PM** Prep Date: **7/24/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	2.39	0.200	2.500	0	95.6	85	115			

Sample ID **1707179-08A MS** Batch ID: **81574** TestNo: **SW7470A** Units: **µg/L**
SampType: **MS** Run ID: **CETAC2_HG_170725A** Analysis Date: **7/25/2017 12:46:41 PM** Prep Date: **7/24/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	2.01	0.200	2.000	0	101	80	120			

Sample ID **1707179-08A MSD** Batch ID: **81574** TestNo: **SW7470A** Units: **µg/L**
SampType: **MSD** Run ID: **CETAC2_HG_170725A** Analysis Date: **7/25/2017 12:48:57 PM** Prep Date: **7/24/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	2.04	0.200	2.000	0	102	80	120	1.48	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707179
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170725B

The QC data in batch 81597 applies to the following samples: 1707179-01B, 1707179-02B, 1707179-03B, 1707179-04B, 1707179-05B, 1707179-06B, 1707179-07B, 1707179-08B, 1707179-09B, 1707179-10B

Sample ID **MB-81597** Batch ID: **81597** TestNo: **SW6020A** Units: **µg/L**
SampType: **MBLK** Run ID: **ICP-MS4_170725B** Analysis Date: **7/25/2017 3:16:00 PM** Prep Date: **7/25/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	ND	10.0								
Molybdenum	ND	5.00								

Sample ID **LCS-81597** Batch ID: **81597** TestNo: **SW6020A** Units: **µg/L**
SampType: **LCS** Run ID: **ICP-MS4_170725B** Analysis Date: **7/25/2017 3:18:00 PM** Prep Date: **7/25/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	200	10.0	200.0	0	100	80	120			
Molybdenum	196	5.00	200.0	0	97.9	80	120			

Sample ID **LCSD-81597** Batch ID: **81597** TestNo: **SW6020A** Units: **µg/L**
SampType: **LCSD** Run ID: **ICP-MS4_170725B** Analysis Date: **7/25/2017 3:20:00 PM** Prep Date: **7/25/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	204	10.0	200.0	0	102	80	120	1.74	15	
Molybdenum	195	5.00	200.0	0	97.3	80	120	0.562	15	

Sample ID **1707179-08B SD** Batch ID: **81597** TestNo: **SW6020A** Units: **µg/L**
SampType: **SD** Run ID: **ICP-MS4_170725B** Analysis Date: **7/25/2017 3:26:00 PM** Prep Date: **7/25/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0	50.0	0	14.60				0	10	
Molybdenum	0	25.0	0	4.968				0	10	

Sample ID **1707179-08B PDS** Batch ID: **81597** TestNo: **SW6020A** Units: **µg/L**
SampType: **PDS** Run ID: **ICP-MS4_170725B** Analysis Date: **7/25/2017 3:46:00 PM** Prep Date: **7/25/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	219	10.0	200.0	14.60	102	80	120			
Molybdenum	206	5.00	200.0	4.968	101	80	120			

Sample ID **1707179-08B MS** Batch ID: **81597** TestNo: **SW6020A** Units: **µg/L**
SampType: **MS** Run ID: **ICP-MS4_170725B** Analysis Date: **7/25/2017 3:48:00 PM** Prep Date: **7/25/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Lithium	219	10.0	200.0	14.60	102	80	120			
Dissolved Molybdenum	208	5.00	200.0	4.968	102	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707179
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170725B

Sample ID **1707179-08B MSD** Batch ID: **81597** TestNo: **SW6020A** Units: **µg/L**
SampType: **MSD** Run ID: **ICP-MS4_170725B** Analysis Date: **7/25/2017 3:50:00 PM** Prep Date: **7/25/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Lithium	214	10.0	200.0	14.60	99.7	80	120	2.12	15	
Dissolved Molybdenum	206	5.00	200.0	4.968	100	80	120	1.16	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707179
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170727B

The QC data in batch 81598 applies to the following samples: 1707179-11B

Sample ID	MB-81598	Batch ID:	81598	TestNo:	SW6020A	Units:	µg/L
SampType:	MBLK	Run ID:	ICP-MS4_170727B	Analysis Date:	7/27/2017 3:04:00 PM	Prep Date:	7/25/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	ND	10.0								
Molybdenum	ND	5.00								

Sample ID	LCS-81598	Batch ID:	81598	TestNo:	SW6020A	Units:	µg/L
SampType:	LCS	Run ID:	ICP-MS4_170727B	Analysis Date:	7/27/2017 3:06:00 PM	Prep Date:	7/25/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	202	10.0	200.0	0	101	80	120			
Molybdenum	189	5.00	200.0	0	94.3	80	120			

Sample ID	LCSD-81598	Batch ID:	81598	TestNo:	SW6020A	Units:	µg/L
SampType:	LCSD	Run ID:	ICP-MS4_170727B	Analysis Date:	7/27/2017 3:08:00 PM	Prep Date:	7/25/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	202	10.0	200.0	0	101	80	120	0.026	15	
Molybdenum	190	5.00	200.0	0	94.9	80	120	0.582	15	

Sample ID	1707202-13G SD	Batch ID:	81598	TestNo:	SW6020A	Units:	µg/L
SampType:	SD	Run ID:	ICP-MS4_170727B	Analysis Date:	7/27/2017 3:50:00 PM	Prep Date:	7/25/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	194	50.0	0	174.1				10.6	10	R
Molybdenum	0	25.0	0	3.332				0	10	

Sample ID	1707202-13G PDS	Batch ID:	81598	TestNo:	SW6020A	Units:	µg/L
SampType:	PDS	Run ID:	ICP-MS4_170727B	Analysis Date:	7/27/2017 4:17:00 PM	Prep Date:	7/25/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	343	10.0	200.0	174.1	84.7	80	120			
Molybdenum	199	5.00	200.0	3.332	97.7	80	120			

Sample ID	1707202-13G MS	Batch ID:	81598	TestNo:	SW6020A	Units:	µg/L
SampType:	MS	Run ID:	ICP-MS4_170727B	Analysis Date:	7/27/2017 4:19:00 PM	Prep Date:	7/25/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	351	10.0	200.0	174.1	88.5	80	120			
Molybdenum	197	5.00	200.0	3.332	97.0	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707179
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170727B

Sample ID **1707202-13G MSD**	Batch ID: **81598**	TestNo: **SW6020A**	Units: **µg/L**
SampType: **MSD**	Run ID: **ICP-MS4_170727B**	Analysis Date: **7/27/2017 4:21:00 PM**	Prep Date: **7/25/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	355	10.0	200.0	174.1	90.6	80	120	1.21	15	
Molybdenum	198	5.00	200.0	3.332	97.3	80	120	0.345	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707179
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170726A

The QC data in batch 81537 applies to the following samples: 1707179-01A, 1707179-02A, 1707179-03A, 1707179-04A, 1707179-05A, 1707179-06A, 1707179-07A, 1707179-08A, 1707179-09A, 1707179-10A, 1707179-11A

Sample ID **MB-81537** Batch ID: **81537** TestNo: **SW6020A** Units: **µg/L**
SampType: **MBLK** Run ID: **ICP-MS5_170726A** Analysis Date: **7/26/2017 10:17:00 AM** Prep Date: **7/21/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	2.50								
Arsenic	ND	5.00								
Barium	ND	10.0								
Beryllium	ND	1.00								
Boron	ND	30.0								
Cadmium	ND	1.00								
Calcium	ND	300								
Chromium	ND	5.00								
Cobalt	ND	5.00								
Lead	ND	1.00								
Lithium	ND	10.0								
Magnesium	ND	300								
Molybdenum	ND	5.00								
Potassium	ND	300								
Selenium	ND	5.00								
Sodium	ND	300								
Thallium	ND	1.50								

Sample ID **LCS-81537** Batch ID: **81537** TestNo: **SW6020A** Units: **µg/L**
SampType: **LCS** Run ID: **ICP-MS5_170726A** Analysis Date: **7/26/2017 10:19:00 AM** Prep Date: **7/21/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	193	2.50	200.0	0	96.5	80	120			
Arsenic	192	5.00	200.0	0	95.8	80	120			
Barium	190	10.0	200.0	0	94.9	80	120			
Beryllium	198	1.00	200.0	0	99.0	80	120			
Boron	197	30.0	200.0	0	98.7	80	120			
Cadmium	197	1.00	200.0	0	98.4	80	120			
Calcium	5350	300	5000	0	107	80	120			
Chromium	199	5.00	200.0	0	99.3	80	120			
Cobalt	211	5.00	200.0	0	106	80	120			
Lead	197	1.00	200.0	0	98.3	80	120			
Lithium	196	10.0	200.0	0	98.2	80	120			
Magnesium	5190	300	5000	0	104	80	120			
Molybdenum	206	5.00	200.0	0	103	80	120			
Potassium	5010	300	5000	0	100	80	120			
Selenium	198	5.00	200.0	0	99.1	80	120			
Sodium	5040	300	5000	0	101	80	120			
Thallium	205	1.50	200.0	0	103	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707179
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170726A

Sample ID **LCSD-81537** Batch ID: **81537** TestNo: **SW6020A** Units: **µg/L**
SampType: **LCSD** Run ID: **ICP-MS5_170726A** Analysis Date: **7/26/2017 10:21:00 AM** Prep Date: **7/21/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	191	2.50	200.0	0	95.7	80	120	0.870	15	
Arsenic	191	5.00	200.0	0	95.3	80	120	0.472	15	
Barium	187	10.0	200.0	0	93.4	80	120	1.57	15	
Beryllium	198	1.00	200.0	0	99.0	80	120	0.029	15	
Boron	200	30.0	200.0	0	100	80	120	1.30	15	
Cadmium	195	1.00	200.0	0	97.4	80	120	0.977	15	
Calcium	5330	300	5000	0	107	80	120	0.380	15	
Chromium	201	5.00	200.0	0	100	80	120	1.08	15	
Cobalt	209	5.00	200.0	0	105	80	120	1.13	15	
Lead	196	1.00	200.0	0	98.2	80	120	0.036	15	
Lithium	198	10.0	200.0	0	99.0	80	120	0.731	15	
Magnesium	5140	300	5000	0	103	80	120	0.969	15	
Molybdenum	203	5.00	200.0	0	102	80	120	1.18	15	
Potassium	5030	300	5000	0	101	80	120	0.425	15	
Selenium	196	5.00	200.0	0	97.8	80	120	1.32	15	
Sodium	5080	300	5000	0	102	80	120	0.892	15	
Thallium	202	1.50	200.0	0	101	80	120	1.36	15	

Sample ID **1707179-08A SD** Batch ID: **81537** TestNo: **SW6020A** Units: **µg/L**
SampType: **SD** Run ID: **ICP-MS5_170726A** Analysis Date: **7/26/2017 10:26:00 AM** Prep Date: **7/21/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	880	1500	0	835.6				5.13	10	
Calcium	126000	15000	0	125300				0.924	10	
Magnesium	26300	15000	0	25910				1.68	10	
Sodium	97800	15000	0	94640				3.25	10	

Sample ID **1707179-08A PDS** Batch ID: **81537** TestNo: **SW6020A** Units: **µg/L**
SampType: **PDS** Run ID: **ICP-MS5_170726A** Analysis Date: **7/26/2017 10:44:00 AM** Prep Date: **7/21/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	2760	300	2000	835.6	96.0	80	120			
Calcium	177000	3000	50000	125300	103	80	120			
Magnesium	76600	3000	50000	25910	101	80	120			
Sodium	144000	3000	50000	94640	99.5	80	120			

Sample ID **1707179-08A MS** Batch ID: **81537** TestNo: **SW6020A** Units: **µg/L**
SampType: **MS** Run ID: **ICP-MS5_170726A** Analysis Date: **7/26/2017 10:46:00 AM** Prep Date: **7/21/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	198	25.0	200.0	0	99.1	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707179
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170726A

Sample ID 1707179-08A MS	Batch ID: 81537	TestNo: SW6020A	Units: µg/L
SampType: MS	Run ID: ICP-MS5_170726A	Analysis Date: 7/26/2017 10:46:00 AM	Prep Date: 7/21/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	199	50.0	200.0	0	99.3	80	120			
Barium	278	100	200.0	92.31	93.0	80	120			
Beryllium	196	10.0	200.0	0	98.0	80	120			
Boron	1170	300	200.0	835.6	168	80	120			S
Cadmium	197	10.0	200.0	0	98.3	80	120			
Calcium	130000	3000	5000	125300	92.9	80	120			
Chromium	203	50.0	200.0	0	102	80	120			
Cobalt	207	50.0	200.0	0	103	80	120			
Lead	199	10.0	200.0	0	99.3	80	120			
Lithium	218	100	200.0	0	109	80	120			
Magnesium	31100	3000	5000	25910	103	80	120			
Molybdenum	206	50.0	200.0	0	103	80	120			
Potassium	5490	3000	5000	0	110	80	120			
Selenium	198	50.0	200.0	0	98.9	80	120			
Sodium	99900	3000	5000	94640	105	80	120			
Thallium	195	15.0	200.0	0	97.6	80	120			

Sample ID 1707179-08A MSD	Batch ID: 81537	TestNo: SW6020A	Units: µg/L
SampType: MSD	Run ID: ICP-MS5_170726A	Analysis Date: 7/26/2017 10:47:00 AM	Prep Date: 7/21/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	195	25.0	200.0	0	97.7	80	120	1.35	15	
Arsenic	200	50.0	200.0	0	100	80	120	0.742	15	
Barium	279	100	200.0	92.31	93.3	80	120	0.226	15	
Beryllium	199	10.0	200.0	0	99.6	80	120	1.59	15	
Boron	1150	300	200.0	835.6	158	80	120	1.72	15	S
Cadmium	197	10.0	200.0	0	98.4	80	120	0.122	15	
Calcium	133000	3000	5000	125300	157	80	120	2.43	15	S
Chromium	207	50.0	200.0	0	103	80	120	1.50	15	
Cobalt	207	50.0	200.0	0	104	80	120	0.333	15	
Lead	199	10.0	200.0	0	99.6	80	120	0.251	15	
Lithium	225	100	200.0	0	112	80	120	2.72	15	
Magnesium	31800	3000	5000	25910	118	80	120	2.36	15	
Molybdenum	212	50.0	200.0	0	106	80	120	3.18	15	
Potassium	5600	3000	5000	0	112	80	120	1.94	15	
Selenium	195	50.0	200.0	0	97.5	80	120	1.44	15	
Sodium	102000	3000	5000	94640	142	80	120	1.86	15	S
Thallium	197	15.0	200.0	0	98.3	80	120	0.720	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707179
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_170726A

Sample ID 1707179-08A SD	Batch ID: 81537	TestNo: SW6020A	Units: µg/L
SampType: SD	Run ID: ICP-MS5_170726A	Analysis Date: 7/26/2017 1:42:00 PM	Prep Date: 7/21/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0	12.5	0	0				0	10	
Arsenic	0	25.0	0	8.103				0	10	
Barium	92.7	50.0	0	91.01				1.82	10	
Beryllium	0	5.00	0	0				0	10	
Cadmium	0	5.00	0	0				0	10	
Chromium	0	25.0	0	0				0	10	
Cobalt	0	25.0	0	0				0	10	
Lead	0	5.00	0	0				0	10	
Lithium	0	50.0	0	15.37				0	10	
Molybdenum	0	25.0	0	4.757				0	10	
Potassium	685	1500	0	681.5				0.451	10	
Selenium	0	25.0	0	0				0	10	
Thallium	0	7.50	0	0				0	10	

Sample ID 1707179-08A PDS	Batch ID: 81537	TestNo: SW6020A	Units: µg/L
SampType: PDS	Run ID: ICP-MS5_170726A	Analysis Date: 7/26/2017 1:56:00 PM	Prep Date: 7/21/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	192	2.50	200.0	0	95.9	80	120			
Arsenic	197	5.00	200.0	8.103	94.3	80	120			
Barium	270	10.0	200.0	91.01	89.5	80	120			
Beryllium	205	1.00	200.0	0	103	80	120			
Cadmium	190	1.00	200.0	0	95.0	80	120			
Chromium	200	5.00	200.0	0	100	80	120			
Cobalt	203	5.00	200.0	0	101	80	120			
Lead	191	1.00	200.0	0	95.7	80	120			
Lithium	216	10.0	200.0	15.37	100	80	120			
Molybdenum	197	5.00	200.0	4.757	96.2	80	120			
Potassium	5570	300	5000	681.5	97.8	80	120			
Selenium	193	5.00	200.0	0	96.6	80	120			
Thallium	202	1.50	200.0	0	101	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707179
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_170721B

The QC data in batch 81534 applies to the following samples: 1707179-01C, 1707179-02C, 1707179-03C, 1707179-04C, 1707179-05C, 1707179-06C, 1707179-07C, 1707179-08C, 1707179-09C, 1707179-10C, 1707179-11C

Sample ID **MB-81534** Batch ID: **81534** TestNo: **M2320 B** Units: **mg/L @ pH 4.28**
SampType: **MBLK** Run ID: **TITRATOR_170721B** Analysis Date: **7/21/2017 9:33:00 AM** Prep Date: **7/21/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	ND	20.0								
Alkalinity, Carbonate (As CaCO3)	ND	20.0								
Alkalinity, Hydroxide (As CaCO3)	ND	20.0								
Alkalinity, Total (As CaCO3)	ND	20.0								

Sample ID **LCS-81534** Batch ID: **81534** TestNo: **M2320 B** Units: **mg/L @ pH 4.2**
SampType: **LCS** Run ID: **TITRATOR_170721B** Analysis Date: **7/21/2017 9:37:00 AM** Prep Date: **7/21/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	50.8	20.0	50.00	0	102	74	129			

Sample ID **1707179-01C-DUP** Batch ID: **81534** TestNo: **M2320 B** Units: **mg/L @ pH 4.09**
SampType: **DUP** Run ID: **TITRATOR_170721B** Analysis Date: **7/21/2017 10:29:00 AM** Prep Date: **7/21/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	0	20.0	0	0				0	20	
Alkalinity, Carbonate (As CaCO3)	0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	0	20.0	0	0				0	20	

Sample ID **1707179-08C-DUP** Batch ID: **81534** TestNo: **M2320 B** Units: **mg/L @ pH 4.52**
SampType: **DUP** Run ID: **TITRATOR_170721B** Analysis Date: **7/21/2017 11:54:00 AM** Prep Date: **7/21/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	324	20.0	0	322.8				0.340	20	
Alkalinity, Carbonate (As CaCO3)	0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	324	20.0	0	322.8				0.340	20	

Sample ID **1707200-05C-DUP** Batch ID: **81534** TestNo: **M2320 B** Units: **mg/L @ pH 4.53**
SampType: **DUP** Run ID: **TITRATOR_170721B** Analysis Date: **7/21/2017 2:51:00 PM** Prep Date: **7/21/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	229	20.0	0	223.3				2.35	20	
Alkalinity, Carbonate (As CaCO3)	0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	229	20.0	0	223.3				2.35	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

2609 North River Road, Port Allen, Louisiana 70767
(800) 401-4277 -- FAX (225) 381-2996

ARS International, LLC

Laboratory Analysis Report

ARS1-17-02166

Prepared for:

B-Environmental

Kevin Baros
1606 East Brazos Street
Suite D
Victoria, TX 77901

dbenviro@suddenlinkmail.com; cbenviro@suddenlinkmail.com
swbenviro@suddenlinkmail.com

Phone: 361-572-8224
Fax: 361-572-4115

Project Manager Review

Management Review

Notes: ARS International, LLC assumes no liability for the use or the interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

Contact Person: Questions regarding this analytical report should be addressed to:

Project Manager

ProjectManagers@amrad.com

Phone: 225.381.2991
Fax: 225.381.2996

LELAP Cert# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-02166
Client Sample ID: S171991640 (Batch 57958)
Sample Collection Date: 07/18/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02166-001
Date Received: 07/20/17
Report Date: 08/18/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.063	0.110	0.193	0.077	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/18/17 8:07	CTRAMEL	107%
Ra-228	-0.208	0.567	1.064	0.492	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/11/17 12:00	CTRAMEL	99%

Project Manager Review

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-02166
Client Sample ID: S17199164A (Batch 57958)
Sample Collection Date: 07/18/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02166-002
Date Received: 07/20/17
Report Date: 08/18/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.191	0.126	0.154	0.058	NP		pCi/L	ARS-010/EPA 903.0/904.0	08/18/17 8:07	CTRAMEL	93%
Ra-228	-0.243	0.665	1.245	0.577	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/11/17 12:00	CTRAMEL	84%

Project Manager Review

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-02166
Client Sample ID: S17199164B (Batch 57958)
Sample Collection Date: 07/18/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02166-003
Date Received: 07/20/17
Report Date: 08/18/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	1.014	0.306	0.204	0.082	NP		pCi/L	ARS-010/EPA 903.0/904.0	08/17/17 8:31	CTRAMEL	95%
Ra-228	1.099	0.728	1.105	0.511	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/10/17 12:08	CTRAMEL	89%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-02166
Client Sample ID: S17199164C (Batch 57958)
Sample Collection Date: 07/18/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02166-004
Date Received: 07/20/17
Report Date: 08/18/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.151	0.111	0.143	0.054	NP		pCi/L	ARS-010/EPA 903.0/904.0	08/17/17 8:31	CTRAMEL	101%
Ra-228	1.286	0.751	1.108	0.513	NP		pCi/L	ARS-010/EPA 903.0/904.0	08/10/17 12:08	CTRAMEL	97%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-02166
Client Sample ID: S17199164D (Batch 57958)
Sample Collection Date: 07/18/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02166-005
Date Received: 07/20/17
Report Date: 08/18/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.252	0.139	0.152	0.058	NP		pCi/L	ARS-010/EPA 903.0/904.0	08/17/17 8:31	CTRAMEL	102%
Ra-228	1.008	0.777	1.221	0.569	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/10/17 12:08	CTRAMEL	94%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-02166
Client Sample ID: S17199164E (Batch 57958)
Sample Collection Date: 07/18/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02166-006
Date Received: 07/20/17
Report Date: 08/18/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.316	0.160	0.184	0.075	NP		pCi/L	ARS-010/EPA 903.0/904.0	08/17/17 8:31	CTRAMEL	103%
Ra-228	0.402	0.735	1.259	0.585	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/10/17 12:08	CTRAMEL	86%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-02166
Client Sample ID: S17199164F (Batch 57958)
Sample Collection Date: 07/18/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02166-007
Date Received: 07/20/17
Report Date: 08/18/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.883	0.302	0.270	0.114	NP		pCi/L	ARS-010/EPA 903.0/904.0	08/17/17 8:31	CTRAMEL	88%
Ra-228	0.890	0.818	1.319	0.614	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/10/17 12:08	CTRAMEL	86%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-02166
Client Sample ID: S17199164G (Batch 57958)
Sample Collection Date: 07/18/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02166-008
Date Received: 07/20/17
Report Date: 08/18/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.520	0.209	0.204	0.084	NP		pCi/L	ARS-010/EPA 903.0/904.0	08/17/17 8:31	CTRAMEL	104%
Ra-228	0.915	0.718	1.127	0.522	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/10/17 12:08	CTRAMEL	93%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2995

ARS Sample Delivery Group: ARS1-17-02166
Client Sample ID: S17199164H (Batch 57958)
Sample Collection Date: 07/18/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02166-009
Date Received: 07/20/17
Report Date: 08/18/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	2.817	0.587	0.161	0.063	NP		pCi/L	ARS-010/EPA 903.0/904.0	08/17/17 8:31	CTRAMEL	112%
Ra-228	1.995	0.988	1.434	0.677	NP		pCi/L	ARS-010/EPA 903.0/904.0	08/10/17 12:08	CTRAMEL	106%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-02164
Client Sample ID: S171991641 (BATCH 57958)
Sample Collection Date: 07/18/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02164-001
Date Received: 07/20/17
Report Date: 08/14/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.188	0.130	0.166	0.064	NP		pCi/L	ARS-010/EPA 903.0/904.0	08/14/17 8:21	CTRAMEL	108%
Ra-228	0.404	0.702	1.198	0.556	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/07/17 12:00	CTRAMEL	84%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-02164
Client Sample ID: S17199164J (BATCH 57958)
Sample Collection Date: 07/18/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02164-002
Date Received: 07/20/17
Report Date: 08/14/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.330	0.168	0.184	0.073	NP		pCi/L	ARS-010/EPA 903.0/904.0	08/14/17 8:21	CTRAMEL	95%
Ra-228	0.959	0.960	1.570	0.741	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/07/17 12:00	CTRAMEL	82%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

Batch # 57958

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

INTERNATIONAL

QC Results Report

Sample Delivery Group: ARS1-17-02166

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-01655	LCS	RA-226	25.854	4.170	0.115	27.622	N/A	pCi/L	ARS-010/EPA 903	8/17/17 10:30	CT	94	75%-125%
ARS1-B17-01655	LCS	RA-228	34.282	5.732	1.084	39.784	N/A	pCi/L	ARS-010/EPA 904	8/10/17 14:08	CT	86	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-01655	MBL	RA-226	0.070	0.067	0.101	NA	U	pCi/L	ARS-010/EPA 903	8/17/17 10:30	CT
ARS1-B17-01655	MBL	RA-228	0.022	0.389	0.697	NA	U	pCi/L	ARS-010/EPA 904	8/10/17 14:08	CT

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-01655	LCSD	RA-226	25.854	4.170	29.066	4.684	N/A	pCi/L	ARS-010/EPA 903	8/17/17 10:30	CT	0.36	< 1
ARS1-B17-01655	LCSD	RA-228	34.282	5.732	36.364	6.068	N/A	pCi/L	ARS-010/EPA 904	8/10/17 14:08	CT	0.18	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Rosult 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-01655	LCSD	RA-226	25.854	4.170	29.066	4.684	N/A	pCi/L	ARS-010/EPA 903	8/17/17 10:30	CT	0.51	< 3
ARS1-B17-01655	LCSD	RA-228	34.282	5.732	36.364	6.068	N/A	pCi/L	ARS-010/EPA 904	8/10/17 14:08	CT	0.25	< 3

Matrix Spike

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery(%)	MS Acceptance Range
ARS1-B17-01655	MS	Ra-226	66.089	10.622	0.166	55.308	N/A	pCi/L	ARS-010/EPA 903	8/17/17 10:30	CT	119	60%-140%
ARS1-B17-01655	MS	Ra-228	41.238	6.899	1.085	51.669	N/A	pCi/L	ARS-010/EPA 903	8/10/17 14:08	CT	80	60%-140%
ARS1-B17-01655	MSD	Ra-226	55.393	8.916	0.171	55.254	N/A	pCi/L	ARS-010/EPA 904	8/17/17 10:30	CT	100	60%-140%
ARS1-B17-01655	MSD	Ra-228	46.612	7.747	1.118	51.416	N/A	pCi/L	ARS-010/EPA 904	8/10/17 14:08	CT	91	60%-140%

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

Batch # 57958

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

INTERNATIONAL

QC Results Report

Sample Delivery Group: ARS1-17-02166

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-01668	LCS	RA-226	22.921	3.706	0.115	26.901	N/A	pCi/L	ARS-010/EPA 903	08/11/17 10:22	EC	85	75%-125%
ARS1-B17-01668	LCS	RA-228	38.943	6.487	1.152	39.784	N/A	pCi/L	ARS-010/EPA 904	8/11/17 10:22	EC	98	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-01668	MBL	RA-226	0.077	0.068	0.101	NA	U	pCi/L	ARS-010/EPA 903	8/11/17 10:22	EC
ARS1-B17-01668	MBL	RA-228	0.185	0.389	0.670	NA	U	pCi/L	ARS-010/EPA 904	8/11/17 10:22	EC

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-01668	LCSD	RA-226	22.921	3.706	24.211	3.916	N/A	pCi/L	ARS-010/EPA 903	8/11/17 10:22	EC	0.17	< 1
ARS1-B17-01668	LCSD	RA-228	38.943	6.487	39.168	6.506	N/A	pCi/L	ARS-010/EPA 904	8/11/17 10:22	EC	0.02	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-01668	LCSD	RA-226	22.921	3.706	24.211	3.916	N/A	pCi/L	ARS-010/EPA 903	8/11/17 10:22	EC	0.24	< 3
ARS1-B17-01668	LCSD	RA-228	38.943	6.487	39.168	6.506	N/A	pCi/L	ARS-010/EPA 904	8/11/17 10:22	EC	0.02	< 3

Matrix Spike

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery(%)	MS Acceptance Range
ARS1-B17-01668	MS	Ra-226	53.446	8.608	0.170	55.738	N/A	pCi/L	ARS-010/EPA 903	8/18/17 10:06	EC	96	60%-140%
ARS1-B17-01668	MS	Ra-228	40.649	6.788	1.066	51.500	N/A	pCi/L	ARS-010/EPA 904	8/11/17 14:00	EC	79	60%-140%
ARS1-B17-01668	MSD	Ra-226	57.014	9.175	0.162	55.900	N/A	pCi/L	ARS-010/EPA 903	8/18/17 10:06	EC	102	60%-140%
ARS1-B17-01668	MSD	Ra-228	41.834	7.055	1.580	51.569	N/A	pCi/L	ARS-010/EPA 904	8/11/17 14:00	EC	81	60%-140%

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

Batch # 57958

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

INTERNATIONAL

QC Results Report

Sample Delivery Group: ARS1-17-02164

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-01622	LCS	RA-226	21.318	3.453	0.115	27.493	N/A	pCi/L	ARS-010/EPA 903	8/14/17 10:20	CT	78	75%-125%
ARS1-B17-01622	LCS	RA-228	34.952	5.821	1.029	39.784	N/A	pCi/L	ARS-010/EPA 904	8/14/17 10:20	CT	88	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-01622	MBL	RA-226	0.092	0.072	0.101	NA	U	pCi/L	ARS-010/EPA 903	8/14/17 10:20	CT
ARS1-B17-01622	MBL	RA-228	-0.121	0.305	0.566	NA	U	pCi/L	ARS-010/EPA 904	8/14/17 10:20	CT

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-01622	LCSD	RA-226	21.318	3.453	27.250	4.397	N/A	pCi/L	ARS-010/EPA 903	8/14/17 10:20	CT	0.76	< 1
ARS1-B17-01622	LCSD	RA-228	34.952	5.821	38.530	6.389	N/A	pCi/L	ARS-010/EPA 904	8/14/17 10:20	CT	0.29	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-01622	LCSD	RA-226	21.318	3.453	27.250	4.397	N/A	pCi/L	ARS-010/EPA 903	8/14/17 10:20	CT	1.06	< 3
ARS1-B17-01622	LCSD	RA-228	34.952	5.821	38.530	6.389	N/A	pCi/L	ARS-010/EPA 904	8/14/17 10:20	CT	0.41	< 3

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

ARS International
Baton Rouge Laboratory

Technical Note Report

Printed: 8/18/2017 1:37 PM
Page 1 of 1

ABATCH ARS1-B17-01655
Analysis Code GPC-A-057
Procedure No ARS-010
Matrix AQ

#	Date	Dept	Technical Note	User ID
1	08/18/2017 1:37 PM	REPORTING	Chemical ~~Tracer~~ Recovery is slightly high for ARS1-17-02166-009 due to high amounts of dissolved solids in sample.	GCULBERSON

JF 8/18/17

ARS INTERNATIONAL

2609 North River Road • Port Allen, Louisiana 70767

1 (800) 401-4277 • Fax (225) 381-2996

Notes (Case Narrative):

Comments:

1.0) All MDA/MDC values are calculated on a sample specific basis.
2.0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.
3.0) Data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.
4.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix. Modified analyses are indicated by the subsequent addition of "m" to the procedure number (i.e. 900.0M).
5.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than the actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
6.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228 (Gamma Spectroscopy only).
7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234 (Gamma Spectroscopy only).
8.0) All gamma spectroscopy was performed utilizing high purity germanium detectors (**HPGe**).
9.0) ARS makes every attempt to match sample density to calibrated density; however, in some cases, it is not practical or possible to do so and data results may be affected (Gamma Spectroscopy only).
10.0) Gamma spectroscopy results are calculated values based on the **ORTEC®** GammaVision ENV32 Analysis Engine.
11.0) ACLASS DOD and ISO 17025 certification applies only to the following analytes and methods: Gross Alpha and Gross Beta (EPA 900, SM7110B&C, SW846 9310); Radium 226 (EPA 903, EPA 903.1, SM 7500 Ra-B, SW846 9315); Radium 228 (EPA 904, SM 7500 Ra-B SW846 9320); Iodine-131(EPA 901.1); Uranium by ICPMS (EPA 200.8); Strontium 89/90 (EPA 905, Eichrom SRW01, HASL 300 Sr-03-RC); Tritium (EPA 906, EPA 906M); Gamma Emitters (EPA 901.1, SM7120B, HASL 300 Ga-01-R); Americium-241, Curium 242/244, Plutonium 239/240 and 241, Thorium 228/230/232, Uranium 234/233 and 238 (Eichrom ACW03 VBS); Lead 210 (HASL 300 Pb-01-RC, Eichrom OTW01); Polonium 210 (HASL 300 Po-01-RC, HASL 300 Po-02-RC); Technetium-99 (Eichrom TCW02, Eichrom TCS01M).

Method References:

1.0) **EPA 600/4-80-032**; Prescribed Procedures for the Measurements of Radioactivity in Drinking Water, August 1980.
2.0) **Standard Methods for the Examination of Water and Wastewater** (On-Line Edition)
3.0) **EPA SW-846**; Test Methods for Evaluating Solid Waste, (On-Line edition)
4.0) **EPA 600/4/79-020**; Methods for Chemical Analysis of Water and Waste, March 1983.
5.0) **HASL 300**; The Procedures Manual of the Environmental Measurements Laboratory, Volume I, 28th Edition February, 1997.

Definitions:

CRDL	Contract Required Detection Limit
CSU	Combined Standard Uncertainty
DLC	Decision Level Concentration (ANSI N42.23) or critical level
DO	Duplicate Original
DUP	Method Duplicate
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
MDA	Minimum Detectable Activity
MDC	(Minimum Detectable Concentration) minimum concentration of the analyte that ARS can detect utilizing the specific analysis
MBL	Method Blank
MS/MSD	Matrix Spike/Matrix Spike Duplicate
N/A	Not Applicable
NP	Not Provided
NR	Not Referenced
LOD	Limit of Detection
LOQ	Limit of Quantitation

Data Qualifiers:

B	The analyte is found in both the associated method blank and the sample. This flag indicates probable blank contamination.
D	Sample analysis accomplished through dilution.
J	The reported result is an estimated value above the limit of detection but outside of quantitation range (e.g., matrix interference was observed).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).
U	Activity is below the MDC, MDA, MDL, or LOD
N	The analyte is a tentatively identified compound using mass spectrometry or any non-customer requested compounds that are tentatively identified.
*	LCS/LCSD or MS/MSD fails RPD criteria.
S	Spike
SC	Subcontracted out to another qualified laboratory
H	Holding time exceeded

LELAP Cert# 01949 ***NELAP Cert# E87558***

ARS-059-010
Revision: 9.1
Revision Date: 03-14-2017

B Environmental Laboratory, LLC
1606 E Brazos Suite D Victoria, Texas 77901 ph. (361) 572-8224

Chain Of Custody Rec

Batch # 57958 | TEMP UN-C: 4.6 | Page 1 of 2

X Check box if Billing is the same as Report Information | THERM ID# 3 | TEMP Corr: 4.4

Customer / Report Information | **Billing Information**

Name: Coleto Creek Power	Address:	Phone: 361-788-5145	FAX:
Attention: Rick Coleman	Attention: PO #	EMAIL: richard.coleman@dynegy.com	
Address: P.O. Box 8; Fannin, TX 77960	Project: CCR Sampling Comments:	Requested Analysis	Completed By laboratory

Sample Information | **Matrix** | **Container** | **Preservative** | Requested Analysis: Metals*, Cl, F*, SO4, pH, TDS, Ra226 & Ra228, Alk:Tot, Carb,BiCarb, Diss Li & Mo | Custody Seals Present Yes ☐ No ☐ Intact Yes ☐ No ☐

Collected By:

Client / Field Sample ID	Collected Date	Collected Time	G = Grab C = Composite	Matrix (DW - Drinking H20, S - Solid, WW - Waste H20, SL - Sludge, L - Liquid, w - Water)	Container TYPE	Container NUMBER	Container Size	Preservative	Metals*	Cl, F*, SO4	pH	TDS	Ra226 & Ra228	Alk:Tot, Carb,BiCarb	Diss Li & Mo	LAB Sample Number
BLANK	7-18-17	1430	G	WW	P	6	1L, 500mL, 250mL	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ ____ ☐ Na2SO3	X	X	X	X	X	X	X	S171991640
MW-4		1412	G	WW	P	6	1L, 500mL, 250mL	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ ____ ☐ Na2SO3	X	X	X	X	X	X	X	S17199164A
MW-8		1037	G	WW	P	6	1L, 500mL, 250mL	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ ____ ☐ Na2SO3	X	X	X	X	X	X	X	S17199164B
BV-1		922	G	WW	P	6	1L, 500mL, 250mL	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ ____ ☐ Na2SO3	X	X	X	X	X	X	X	S17199164C
BV-5		958	G	WW	P	6	1L, 500mL, 250mL	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ ____ ☐ Na2SO3	X	X	X	X	X	X	X	S17199164D
BV-10		858	G	WW	P	6	1L, 500mL, 250ml	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ ____ ☐ Na2SO3	X	X	X	X	X	X	X	S17199164E
BV-15		1338	G	WW	P	6	1L, 500mL, 250mL	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ ____ ☐ Na2SO3	X	X	X	X	X	X	X	S17199164F

Required Turnaround: ☒ Routine (6-10 Business days) **Expedite / Rush:** ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business days ☐ 5 Business days ☐ Other _____ REMARKS:

Surcharge will apply to RUSH TAT Authorized BY: | **Container Type: P=Plastic, G=Glass, V=Voa, O=Other** | **Carrier ID :**

Relinquished By:	Date: 7-18-17	Time: 1510	Received By:	Date: 7/18/17	Time: 1510
Relinquished By:	Date: 7/18/17	Time: 1626	Received By:	Date: 7-18-17	Time: 16:26
Relinquished By	Date:	Time:	Received By:	Date:	Time:

FLuoride: MAL 0.25 mg/L Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Mg,K,Na, & Hg

B Environmental Laboratory, LLC

1606 E Brazos Suite D Victoria, Texas 77901 ph. (361) 572-8224

Chain Of Custody Rec

Batch # 57950 | TEMP UN-C: 4.6 | Page 2 of 2 | THERM ID# 7 | TEMP Corr: 4.4

X Check box if Billing is the same as Report Information

Customer / Report Information | **Billing Information**

Name: Coleto Creek Power	Address:	Phone: 361-788-5145	FAX:
Attention: Rick Coleman	Attention: PO #	EMAIL: richard.coleman@dynegy.com	
Address: P.O. Box 8; Fannin, TX 77960	Project: CCR Sampling Comments:	Requested Analysis	Completed By laboratory

Sample Information				Matrix	Container			Preservative	Metals*	Cl, F*, SO4	pH	TDS	Ra226 & Ra228	Alk.Tot, Carb,BiCarb	Diss Li & Mo			Custody Seals Present Yes ☐ No ☐ Intact Yes ☐ No ☐ LAB Sample Number
Client / Field Sample ID	Collected Date	Collected Time	G = Grab C = Composite	DW - Drinking H20 S - Solid WW - Waste H20 SL - Sludge L - Liquid w - Water	TYPE	NUMBER	Size											
BV-19	7-18-17	819	G	WW	P	6	1L 500mL 250mL	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ ____ ☐ Na2SO3	X	X	X	X	X	X	X			S17199164G
BV-19 MS		819	G	WW	P	6	1L 500mL 250mL	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ ____ ☐ Na2SO3	X	X	X	X	X	X	X			
BV-19 MSD		819	G	WW	P	6	1L 500mL 250mL	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ ____ ☐ Na2SO3	X	X	X	X	X	X	X			
BV-21		1306	G	WW	P	6	1L 500mL 250mL	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ ____ ☐ Na2SO3	X	X	X	X	X	X	X			S17199164H
BV-22		1111	G	WW	P	6	1L 500mL 250mL	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ ____ ☐ Na2SO3	X	X	X	X	X	X	X			S17199164I
Dup 1	↓		G	WW	P	6	1L 500mL 250ml	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ ____ ☐ Na2SO3	X	X	X	X	X	X	X			S17199164J
			G	WW	P	6	1L 500mL 250mL	☐ H2SO4 ☒ HNO3 ☐ H3PO4 ☐ NaOH ☒ ICE ☐ HCL ☐ ____ ☐ Na2SO3	X	X	X	X	X	X	X			

Required Turnaround: ☒ Routine (6-10 Business days) **Expedite / Rush:** ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business days ☐ 5 Business days ☐ Other _____ REMARKS:

Surcharge will apply to RUSH TAT Authorized BY: | **Container Type: P=Plastic, G=Glass, V=Voa, O=Other** | **Carrier ID :**

Relinquished By:		Date: 7-18-17	Time: 1510	Received By:		Date: 7/18/17	Time: 1510
Relinquished By:		Date: 7/18/17	Time: 1626	Received By:		Date: 7-18-17	Time: 16:26
Relinquished By		Date:	Time:	Received By:		Date:	Time:

FLuoride: MAL 0.25 mg/L Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Mg,K,Na, & Hg

BatchNo: 58057

SAMPLE REPORT

T104704328-17-14

Business

Coleto Creek Power - R Coleman
PO Box 8
Fannin TX 77960
Att: Rick Coleman

Laboratory

B Environmental, LLC.
1606 E Brazos, Suite D
Victoria TX 77901
ph. 361-572-8224

Reference Information

Project: CCR Sampling

Printed: Friday, September 08, 2017

Re: Coleto Creek Power - R Coleman

Dear: Rick Coleman

Attached are the results for sample(s) received on 7/20/2017

The analytical results relate only to the samples tested.
All supporting quality data meets the requirements of NELAC unless noted in the case narrative section of the report.

This report contains 45 pages (including the cover page)

If you have any questions concerning this report, please do not hesitate to call (361) 572-8224 or Fax us at (361) 572-4115

Respectfully Submitted,

Kevin Baros

Laboratory Director

Batch No: 58057

Sample Receipt Checklist

Date Received: 7/20/2017

Project	CCR Sampling	Received By:	Woodruff
Login completed by:	Woodruff	7/20/2017	
	Signature	LoginDate:	

Carrier Name: Walk In

Shipping container/cooler in good condition?	☑ YES	☐ NO	☐ Not Present	
Custody seals intact on shipping container/cooler?	☐ YES	☐ NO	☑ Not Present	
Custody seals intact on sample bottles?	☐ YES	☐ NO	☑ Not Present	
Chain of Custody present?	☑ YES	☐ NO		
Chain of Custody signed when relinquished and received	☑ YES	☐ NO		
Chain of Custody agrees with sample labels?	☑ YES	☐ NO		
Samples in proper container/bottles?	☑ YES	☐ NO		
Sample containers intact?	☑ YES	☐ NO		
Sufficient sample volume for indicated tests?	☑ YES	☐ NO		
All samples received within holding times?	☑ YES	☐ NO		
Container/Temp Blank - temperature in compliance?	☑ YES	☐ NO	>0 <6 °C On Ice	
Water - VOA vials have zero headspace? Bubble < 6mm?	☐ YES	☐ NO	☑ No VOA Vials submitted	
Water - pH acceptable upon receipt?	☑ YES	☐ NO	☐ Not Applicable	

*TEMP 7.6/7.4 | pH Adjusted? No | Checked By L. Vahrenkamp

Any No and/or N/A (not applicable) response must be detailed in the comments section below.

Client contacted		PersonContacted	
Contacted by:		Date Contacted:	

Regarding:

Comments:

Therm. #3. HNO3 Lot# 2-4212. The samples were received the same day they were collected and were in the process of cooling.

Corrective Action:

Sample Report Information

Sample ID:	S172010707	Client ID:	Dup 2	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: Dup
Notes:

Batch No: 58057
Sampled: 7/19/2017 12:00 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	43	mg/L	EPA 300	K Baros	7/21/2017 2:23	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	145	mg/L	SM 2320 B		7/21/2017 14:15	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/21/2017 14:15	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	145	mg/L	SM 2320 B		7/21/2017 14:15	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	1.02	mg/L	EPA 300	K Baros	7/21/2017 2:23	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.3	SU	SM 4500-H+B	C Watts	7/19/2017 17:05					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	357	mg/L	SM2540C	C Watts	7/25/2017 17:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/28/2017 16:04					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	42	mg/L	EPA 300	K Baros	7/21/2017 2:23	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/18/2017 8:07					☑	ARS International

Sample Report Information

Sample ID:	S172010710	Client ID:	MW-5	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #5
Notes:

Batch No: 58057
Sampled: 7/19/2017 11:05 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	137	mg/L	EPA 300	K Baros	7/21/2017 6:49	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	282	mg/L	SM 2320 B		7/21/2017 14:26	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/21/2017 14:26	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	282	mg/L	SM 2320 B		7/21/2017 14:26	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.53	mg/L	EPA 300	K Baros	7/21/2017 6:49	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.04	SU	SM 4500-H+B	C Watts	7/19/2017 17:05					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	857	mg/L	SM2540C	C Watts	7/25/2017 17:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/28/2017 16:24					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	181	mg/L	EPA 300	K Baros	7/21/2017 6:49	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/18/2017 8:07					☑	ARS International

Sample Report Information

Sample ID:	S172010711	Client ID:	MW-9A	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW 9A
Notes:

Batch No: 58057
Sampled: 7/19/2017 9:39 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	60	mg/L	EPA 300	K Baros	7/21/2017 7:27	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	135	mg/L	SM 2320 B		7/21/2017 14:36	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/21/2017 14:36	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	135	mg/L	SM 2320 B		7/21/2017 14:36	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	1.26	mg/L	EPA 300	K Baros	7/21/2017 7:27	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.62	SU	SM 4500-H+B	C Watts	7/19/2017 17:05					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	383	mg/L	SM2540C	C Watts	7/25/2017 17:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/28/2017 16:28					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	62	mg/L	EPA 300	K Baros	7/21/2017 7:27	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/18/2017 8:07					☑	ARS International

Sample Report Information

Sample ID:	S172010712	Client ID:	MW-11	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #11
Notes:

Batch No: 58057
Sampled: 7/19/2017 8:43 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	43	mg/L	EPA 300	K Baros	7/21/2017 8:05	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	144	mg/L	SM 2320 B		7/21/2017 15:09	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/21/2017 15:09	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	144	mg/L	SM 2320 B		7/21/2017 15:09	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	1.01	mg/L	EPA 300	K Baros	7/21/2017 8:05	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.61	SU	SM 4500-H+B	C Watts	7/19/2017 17:05					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	360	mg/L	SM2540C	C Watts	7/25/2017 17:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/28/2017 16:32					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	42	mg/L	EPA 300	K Baros	7/21/2017 8:05	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/24/2017 8:24					☑	ARS International

Sample Report Information

Sample ID:	S17201071A	Client ID:	MW-9	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #9
Notes:

Batch No: 58057
Sampled: 7/19/2017 10:14 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	63	mg/L	EPA 300	K Baros	7/21/2017 3:01	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	130	mg/L	SM 2320 B		7/21/2017 14:31	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/21/2017 14:31	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	130	mg/L	SM 2320 B		7/21/2017 14:31	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	1.4	mg/L	EPA 300	K Baros	7/21/2017 3:01	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.52	SU	SM 4500-H+B	C Watts	7/19/2017 17:05					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	407	mg/L	SM2540C	C Watts	7/25/2017 17:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/28/2017 16:26					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	62	mg/L	EPA 300	K Baros	7/21/2017 3:01	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/18/2017 8:07					☑	ARS International

Sample Report Information

Sample ID:	S17201071B	Client ID:	MW-10	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW #10
Notes:

Batch No: 58057
Sampled: 7/19/2017 12:55 PM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	74	mg/L	EPA 300	K Baros	7/21/2017 3:39	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	223	mg/L	SM 2320 B		7/21/2017 16:20	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/21/2017 16:20	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	223	mg/L	SM 2320 B		7/21/2017 16:20	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.86	mg/L	EPA 300	K Baros	7/21/2017 3:39	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.37	SU	SM 4500-H+B	C Watts	7/19/2017 17:05					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	533	mg/L	SM2540C	C Watts	7/25/2017 17:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/28/2017 16:20					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	86	mg/L	EPA 300	K Baros	7/21/2017 3:39	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/18/2017 8:07					☑	ARS International

Sample Report Information

Sample ID:	S17201071C	Client ID:	MW-10A	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: MW 10A
Notes:

Batch No: 58057
Sampled: 7/19/2017 1:38 PM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	367	mg/L	EPA 300	K Baros	7/21/2017 17:33	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	326	mg/L	SM 2320 B		7/21/2017 15:03	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/21/2017 15:03	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	326	mg/L	SM 2320 B		7/21/2017 15:03	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.44	mg/L	EPA 300	K Baros	7/21/2017 17:33	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	6.85	SU	SM 4500-H+B	C Watts	7/19/2017 17:05					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	1153	mg/L	SM2540C	C Watts	7/25/2017 17:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	c	#			7/28/2017 16:30					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	85	mg/L	EPA 300	K Baros	7/21/2017 17:33	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	c	#			8/24/2017 8:24					☑	ARS International

Sample Report Information

Sample ID:	S17201071D	Client ID:	PS-3	Sampler:	Client

Client: Coleto Creek Power - R Coleman
Study: Water
Project: CCR Sampling
Location: PS 3
Notes:

Batch No: 58057
Sampled: 7/19/2017 8:11 AM
Type: Grab
Matrix: Water

Case Narrative:

Analyte	Result	Units	Method	Analyst	Date/Time Analyzed	LOQ	MDL	DF	Qual	S/Out	Laboratory
.- Chloride, IC	50	mg/L	EPA 300	K Baros	7/21/2017 18:11	1	1			☐	B- E Cert. # T104704328-17-14
Alkalinity, Bicarbonate	179	mg/L	SM 2320 B		7/21/2017 15:15	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Carbonate	< 20	mg/L	SM 2320 B		7/21/2017 15:15	10	10			☑	DHL Cert No. T104704211-12-8
Alkalinity, Total	179	mg/L	SM 2320 B		7/21/2017 15:15	10	10			☑	DHL Cert No. T104704211-12-8
Fluoride, IC	0.83	mg/L	EPA 300	K Baros	7/21/2017 18:11	0.25	0.25			☐	B- E Cert. # T104704328-17-14
pH (Standard Units)	7.37	SU	SM 4500-H+B	C Watts	7/19/2017 17:05					☐	B- E Cert. # T104704328-17-14
Solids, Total Dissolved	367	mg/L	SM2540C	C Watts	7/25/2017 17:30	25	25			☐	B- E Cert. # T104704328-17-14
SUB-OUT-Metals	C	#			7/28/2017 16:34					☑	DHL Cert No. T104704211-12-8
Sulfate, IC	32	mg/L	EPA 300	K Baros	7/21/2017 18:11	1	1			☐	B- E Cert. # T104704328-17-14
x-SUB OUT Misc.	C	#			8/24/2017 8:24					☑	ARS International

QA Summary Report

Parameter	ID	Result	Ref Value	Amt Added	LOQ	Qualifer	Control	Flag	Comments
Method Blank									
.- Chloride, IC	Q172111612	<1mg/L	0		1		1		Blank Acceptable.
7/20/2017 16:51									
Fluoride, IC	Q172111612	<0.25mg/L	0		0.25		0.25		Blank Acceptable.
7/20/2017 16:51									
Nitrate-N, IC	Q172111612	<0.06mg/L	0		0.06		0.06		Blank Acceptable.
7/20/2017 16:51									
Phosphate-P, IC	Q172111612	<0.33mg/L	0		0.33		0.33		Blank Acceptable.
7/20/2017 16:51									
Solids, Total Dissolved	Q172091410	<25mg/L	0		10		25		Blank Acceptable.
7/25/2017 17:30									
Sulfate, IC	Q172111612	<1mg/L	0		1		1		Blank Acceptable.
7/20/2017 16:51									
Duplicate									
pH (Standard Units)	Q172051218	7.38SU	7.37		2	0.1%	20		Duplicate RPD Acceptable.
7/19/2017 17:05									
Solids, Total Dissolved	Q172091411	550mg/L	533		10	3.1%	20		Duplicate RPD Acceptable.
7/25/2017 17:30									
Laboratory Control Standard									
.- Chloride, IC	Q172111615	25.37mg/L	25		1	101.5%	80 - 120		Standard Recovery Acceptable.
7/20/2017 17:29						1.5%	20		Standard RPD Acceptable.
Fluoride, IC	Q172111615	2.036mg/L	2		0.25	101.8%	80 - 120		Standard Recovery Acceptable.
7/20/2017 17:29						1.8%	20		Standard RPD Acceptable.
Nitrate-N, IC	Q172111615	0.43mg/L	0.45		0.06	95.6%	80 - 120		Standard Recovery Acceptable.
7/20/2017 17:29						4.5%	25		Standard RPD Acceptable.
pH (Standard Units)	Q172051217	7.03SU	7		2	100.4%	80 - 120		Standard Recovery Acceptable.
7/19/2017 17:05						0.4%	20		Standard RPD Acceptable.
Phosphate-P, IC	Q172111615	3.13mg/L	3.26		0.33	96.0%	80 - 120		Standard Recovery Acceptable.
7/20/2017 17:29						4.1%	20		Standard RPD Acceptable.
Sulfate, IC	Q172111615	25.57mg/L	25		1	102.3%	80 - 120		Standard Recovery Acceptable.
7/20/2017 17:29						2.3%	20		Standard RPD Acceptable.
Matrix Spike									
.- Chloride, IC	Q172111616	93.2mg/L	91.2	25	1	108.0%	80 - 120		Spike Recovery Acceptable.
7/21/2017 13:06						2.2%	20		Spike RPD Acceptable.
Fluoride, IC	Q172111616	2.63mg/L	2.77	2	0.25	93.0%	80 - 120		Spike Recovery Acceptable.
7/21/2017 13:06						5.2%	20		Spike RPD Acceptable.
Nitrate-N, IC	Q172111616	2.043mg/L	2.25	2.25	0.06	90.8%	80 - 120		Spike Recovery Acceptable.
7/21/2017 13:06						9.6%	20		Spike RPD Acceptable.
Phosphate-P, IC	Q172111616	15.4mg/L	16.62	16.3	0.33	92.5%	80 - 120		Spike Recovery Acceptable.
7/21/2017 13:06						7.6%	20		Spike RPD Acceptable.
Sulfate, IC	Q172111616	105.4mg/L	102.2	25	1	112.8%	70 - 130		Spike Recovery Acceptable.
7/21/2017 13:06						3.1%	20		Spike RPD Acceptable.

Parameter	ID	Result	Ref Value	Amt Added	LOQ	Qualifer	Control	Flag	Comments
Matrix Spike Dup									
Chloride, IC	Q17211161C	92.5mg/L	91.2	25	1	105.2%	80 - 120		Spike Recovery Acceptable.
7/21/2017 16:55						1.4%	20		Spike RPD Acceptable.
Fluoride, IC	Q17211161C	2.61mg/L	2.77	2	0.25	92.0%	80 - 120		Spike Recovery Acceptable.
7/21/2017 16:55						5.9%	20		Spike RPD Acceptable.
Nitrate-N, IC	Q17211161C	2.03mg/L	2.25	2.25	0.06	90.2%	80 - 120		Spike Recovery Acceptable.
7/21/2017 16:55						10.3%	20		Spike RPD Acceptable.
Phosphate-P, IC	Q17211161C	15.52mg/L	16.62	16.3	0.33	93.3%	80 - 120		Spike Recovery Acceptable.
7/21/2017 16:55						6.8%	20		Spike RPD Acceptable.
Sulfate, IC	Q17211161C	103.3mg/L	102.2	25	1	104.4%	70 - 130		Spike Recovery Acceptable.
7/21/2017 16:55						1.1%	20		Spike RPD Acceptable.

Flag and Qualifier Legend

Negative - Result Detected
Caution - Problem Detected
Warning - Null Value

MDL = Method Detection Limit ***DF = Dilution Factor***
LOQ = Limit of Quantitation ***j = Analyte detected between MDL and LOQ***
S = surrogate standard out of limit ***H = sample out of hold time***

MS, MSD, RPD- Failure may occur due to matrix interference, data released per QA plan

Friday, September 08, 2017 **B Environmental - LDMS QA Report Summary**

Note: THANK YOU!

DHL Analytical, Inc. **Date:** *31-Jul-17*

CLIENT:	B-Environmental
Project:	Coleto Creek Power
Lab Order:	1707200

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition and Standard Methods.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives except where noted in the following. For Total Metals Analysis, the recoveries of up to three analytes for the Matrix Spike and Matrix Spike Duplicate (1707200-05 MS/MSD) were above the method control limits. These are flagged accordingly in the QC Summary Report. These analytes were within method control limits in the associated LCS. No further corrective action was taken.

For Total Mercury Analysis, the recovery of the Post Digestion Spike (1707200-05 PDS) was slightly below the method control limits. This is flagged accordingly in the QC Summary Report. The associated Serial Dilution was within method control limits. No further corrective action was taken.

For Total/Dissolved Metals Analysis, the results of Dissolved Lithium/Molybdenum for the samples were slightly higher than the results of Total Lithium/Molybdenum. The results were within acceptable analytical variation limits. No further corrective action was taken.

DHL Analytical, Inc.

Date: *31-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	Dup 2
Project:	Coleto Creek Power	**Lab ID:**	1707200-01
Project No:	CCR Sampling (58057)	**Collection Date:**	07/19/17
Lab Order:	1707200	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	14.3	5.00	10.0		µg/L	1	07/25/17 04:04 PM
Dissolved Molybdenum	8.06	2.00	5.00		µg/L	1	07/25/17 04:04 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	ND	0.800	2.50		µg/L	1	07/28/17 04:01 PM
Arsenic	23.1	2.00	5.00		µg/L	1	07/28/17 04:01 PM
Barium	74.1	3.00	10.0		µg/L	1	07/28/17 04:01 PM
Beryllium	ND	0.300	1.00		µg/L	1	07/28/17 04:01 PM
Boron	1180	100	300		µg/L	10	07/31/17 11:24 AM
Cadmium	ND	0.300	1.00		µg/L	1	07/28/17 04:01 PM
Calcium	53700	1000	3000		µg/L	10	07/31/17 11:24 AM
Chromium	8.95	2.00	5.00		µg/L	1	07/28/17 04:01 PM
Cobalt	3.00	3.00	5.00	J	µg/L	1	07/28/17 04:01 PM
Lead	2.84	0.300	1.00		µg/L	1	07/28/17 04:01 PM
Lithium	13.7	5.00	10.0		µg/L	1	07/28/17 04:01 PM
Magnesium	4550	100	300		µg/L	1	07/28/17 04:01 PM
Molybdenum	7.44	2.00	5.00		µg/L	1	07/28/17 04:01 PM
Potassium	1940	100	300		µg/L	1	07/28/17 04:01 PM
Selenium	ND	2.00	5.00		µg/L	1	07/28/17 04:01 PM
Sodium	62800	1000	3000		µg/L	10	07/31/17 11:24 AM
Thallium	ND	0.500	1.50		µg/L	1	07/28/17 04:01 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	ND	0.0800	0.200		µg/L	1	07/25/17 01:04 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	145	10.0	20.0		mg/L @ pH 4.5	1	07/21/17 02:15 PM
Alkalinity, Carbonate (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.5	1	07/21/17 02:15 PM
Alkalinity, Hydroxide (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.5	1	07/21/17 02:15 PM
Alkalinity, Total (As CaCO3)	145	20.0	20.0		mg/L @ pH 4.5	1	07/21/17 02:15 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *31-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-5
Project:	Coleto Creek Power	**Lab ID:**	1707200-02
Project No:	CCR Sampling (58057)	**Collection Date:**	07/19/17 11:05 AM
Lab Order:	1707200	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	21.1	5.00	10.0		µg/L	1	07/25/17 04:06 PM
Dissolved Molybdenum	ND	2.00	5.00		µg/L	1	07/25/17 04:06 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	ND	0.800	2.50		µg/L	1	07/28/17 04:24 PM
Arsenic	9.41	2.00	5.00		µg/L	1	07/28/17 04:24 PM
Barium	73.5	3.00	10.0		µg/L	1	07/28/17 04:24 PM
Beryllium	ND	0.300	1.00		µg/L	1	07/28/17 04:24 PM
Boron	142	10.0	30.0		µg/L	1	07/31/17 12:38 PM
Cadmium	ND	0.300	1.00		µg/L	1	07/28/17 04:24 PM
Calcium	122000	2000	6000		µg/L	20	07/31/17 11:26 AM
Chromium	3.64	2.00	5.00	J	µg/L	1	07/28/17 04:24 PM
Cobalt	ND	3.00	5.00		µg/L	1	07/28/17 04:24 PM
Lead	ND	0.300	1.00		µg/L	1	07/28/17 04:24 PM
Lithium	18.6	5.00	10.0		µg/L	1	07/28/17 04:24 PM
Magnesium	22200	100	300		µg/L	1	07/28/17 04:24 PM
Molybdenum	ND	2.00	5.00		µg/L	1	07/28/17 04:24 PM
Potassium	1530	100	300		µg/L	1	07/28/17 04:24 PM
Selenium	ND	2.00	5.00		µg/L	1	07/28/17 04:24 PM
Sodium	129000	2000	6000		µg/L	20	07/31/17 11:26 AM
Thallium	ND	0.500	1.50		µg/L	1	07/28/17 04:24 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	ND	0.0800	0.200		µg/L	1	07/25/17 01:07 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	282	10.0	20.0		mg/L @ pH 4.52	1	07/21/17 02:26 PM
Alkalinity, Carbonate (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.52	1	07/21/17 02:26 PM
Alkalinity, Hydroxide (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.52	1	07/21/17 02:26 PM
Alkalinity, Total (As CaCO3)	282	20.0	20.0		mg/L @ pH 4.52	1	07/21/17 02:26 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *31-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-9
Project:	Coleto Creek Power	**Lab ID:**	1707200-03
Project No:	CCR Sampling (58057)	**Collection Date:**	07/19/17 10:14 AM
Lab Order:	1707200	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	5.47	5.00	10.0	J	µg/L	1	07/25/17 04:08 PM
Dissolved Molybdenum	117	2.00	5.00		µg/L	1	07/25/17 04:08 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	ND	0.800	2.50		µg/L	1	07/28/17 04:26 PM
Arsenic	10.3	2.00	5.00		µg/L	1	07/28/17 04:26 PM
Barium	101	3.00	10.0		µg/L	1	07/28/17 04:26 PM
Beryllium	ND	0.300	1.00		µg/L	1	07/28/17 04:26 PM
Boron	3400	100	300		µg/L	10	07/31/17 11:28 AM
Cadmium	ND	0.300	1.00		µg/L	1	07/28/17 04:26 PM
Calcium	50200	1000	3000		µg/L	10	07/31/17 11:28 AM
Chromium	3.21	2.00	5.00	J	µg/L	1	07/28/17 04:26 PM
Cobalt	3.23	3.00	5.00	J	µg/L	1	07/28/17 04:26 PM
Lead	0.766	0.300	1.00	J	µg/L	1	07/28/17 04:26 PM
Lithium	5.90	5.00	10.0	J	µg/L	1	07/28/17 04:26 PM
Magnesium	6740	100	300		µg/L	1	07/28/17 04:26 PM
Molybdenum	113	2.00	5.00		µg/L	1	07/28/17 04:26 PM
Potassium	1030	100	300		µg/L	1	07/28/17 04:26 PM
Selenium	ND	2.00	5.00		µg/L	1	07/28/17 04:26 PM
Sodium	62400	1000	3000		µg/L	10	07/31/17 11:28 AM
Thallium	ND	0.500	1.50		µg/L	1	07/28/17 04:26 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	ND	0.0800	0.200		µg/L	1	07/25/17 01:09 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	130	10.0	20.0		mg/L @ pH 4.49	1	07/21/17 02:31 PM
Alkalinity, Carbonate (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.49	1	07/21/17 02:31 PM
Alkalinity, Hydroxide (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.49	1	07/21/17 02:31 PM
Alkalinity, Total (As CaCO3)	130	20.0	20.0		mg/L @ pH 4.49	1	07/21/17 02:31 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *31-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-9A
Project:	Coleto Creek Power	**Lab ID:**	1707200-04
Project No:	CCR Sampling (58057)	**Collection Date:**	07/19/17 09:39 AM
Lab Order:	1707200	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	6.45	5.00	10.0	J	µg/L	1	07/25/17 04:10 PM
Dissolved Molybdenum	73.4	2.00	5.00		µg/L	1	07/25/17 04:10 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	ND	0.800	2.50		µg/L	1	07/28/17 04:28 PM
Arsenic	11.3	2.00	5.00		µg/L	1	07/28/17 04:28 PM
Barium	125	3.00	10.0		µg/L	1	07/28/17 04:28 PM
Beryllium	ND	0.300	1.00		µg/L	1	07/28/17 04:28 PM
Boron	3220	100	300		µg/L	10	07/31/17 11:30 AM
Cadmium	ND	0.300	1.00		µg/L	1	07/28/17 04:28 PM
Calcium	88600	1000	3000		µg/L	10	07/31/17 11:30 AM
Chromium	7.87	2.00	5.00		µg/L	1	07/28/17 04:28 PM
Cobalt	3.74	3.00	5.00	J	µg/L	1	07/28/17 04:28 PM
Lead	2.48	0.300	1.00		µg/L	1	07/28/17 04:28 PM
Lithium	6.98	5.00	10.0	J	µg/L	1	07/28/17 04:28 PM
Magnesium	8540	100	300		µg/L	1	07/28/17 04:28 PM
Molybdenum	69.6	2.00	5.00		µg/L	1	07/28/17 04:28 PM
Potassium	1070	100	300		µg/L	1	07/28/17 04:28 PM
Selenium	ND	2.00	5.00		µg/L	1	07/28/17 04:28 PM
Sodium	63900	1000	3000		µg/L	10	07/31/17 11:30 AM
Thallium	ND	0.500	1.50		µg/L	1	07/28/17 04:28 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	ND	0.0800	0.200		µg/L	1	07/25/17 01:11 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	135	10.0	20.0		mg/L @ pH 4.5	1	07/21/17 02:36 PM
Alkalinity, Carbonate (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.5	1	07/21/17 02:36 PM
Alkalinity, Hydroxide (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.5	1	07/21/17 02:36 PM
Alkalinity, Total (As CaCO3)	135	20.0	20.0		mg/L @ pH 4.5	1	07/21/17 02:36 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *31-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-10
Project:	Coleto Creek Power	**Lab ID:**	1707200-05
Project No:	CCR Sampling (58057)	**Collection Date:**	07/19/17 12:55 PM
Lab Order:	1707200	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	12.8	5.00	10.0		µg/L	1	07/25/17 04:00 PM
Dissolved Molybdenum	125	2.00	5.00		µg/L	1	07/25/17 04:00 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	ND	0.800	2.50		µg/L	1	07/28/17 04:20 PM
Arsenic	14.6	2.00	5.00		µg/L	1	07/28/17 04:20 PM
Barium	63.3	3.00	10.0		µg/L	1	07/28/17 04:20 PM
Beryllium	ND	0.300	1.00		µg/L	1	07/28/17 04:20 PM
Boron	8740	200	600		µg/L	20	07/31/17 11:20 AM
Cadmium	ND	0.300	1.00		µg/L	1	07/28/17 04:20 PM
Calcium	56600	2000	6000		µg/L	20	07/31/17 11:20 AM
Chromium	9.63	2.00	5.00		µg/L	1	07/28/17 04:20 PM
Cobalt	ND	3.00	5.00		µg/L	1	07/28/17 04:20 PM
Lead	0.684	0.300	1.00	J	µg/L	1	07/28/17 04:20 PM
Lithium	12.7	5.00	10.0		µg/L	1	07/28/17 04:20 PM
Magnesium	9010	100	300		µg/L	1	07/28/17 04:20 PM
Molybdenum	121	2.00	5.00		µg/L	1	07/28/17 04:20 PM
Potassium	926	100	300		µg/L	1	07/28/17 04:20 PM
Selenium	ND	2.00	5.00		µg/L	1	07/28/17 04:20 PM
Sodium	136000	2000	6000		µg/L	20	07/31/17 11:20 AM
Thallium	ND	0.500	1.50		µg/L	1	07/28/17 04:20 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	ND	0.0800	0.200		µg/L	1	07/25/17 01:13 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	223	10.0	20.0		mg/L @ pH 4.52	1	07/21/17 02:43 PM
Alkalinity, Carbonate (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.52	1	07/21/17 02:43 PM
Alkalinity, Hydroxide (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.52	1	07/21/17 02:43 PM
Alkalinity, Total (As CaCO3)	223	20.0	20.0		mg/L @ pH 4.52	1	07/21/17 02:43 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *31-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-10A
Project:	Coleto Creek Power	**Lab ID:**	1707200-06
Project No:	CCR Sampling (58057)	**Collection Date:**	07/19/17 01:38 PM
Lab Order:	1707200	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	27.5	5.00	10.0		µg/L	1	07/25/17 04:12 PM
Dissolved Molybdenum	3.20	2.00	5.00	J	µg/L	1	07/25/17 04:12 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	ND	0.800	2.50		µg/L	1	07/28/17 04:30 PM
Arsenic	5.23	2.00	5.00		µg/L	1	07/28/17 04:30 PM
Barium	99.4	3.00	10.0		µg/L	1	07/28/17 04:30 PM
Beryllium	ND	0.300	1.00		µg/L	1	07/28/17 04:30 PM
Boron	249	10.0	30.0		µg/L	1	07/31/17 12:40 PM
Cadmium	ND	0.300	1.00		µg/L	1	07/28/17 04:30 PM
Calcium	174000	2000	6000		µg/L	20	07/31/17 11:32 AM
Chromium	21.8	2.00	5.00		µg/L	1	07/28/17 04:30 PM
Cobalt	ND	3.00	5.00		µg/L	1	07/28/17 04:30 PM
Lead	0.369	0.300	1.00	J	µg/L	1	07/28/17 04:30 PM
Lithium	24.3	5.00	10.0		µg/L	1	07/28/17 04:30 PM
Magnesium	30800	2000	6000		µg/L	20	07/31/17 11:32 AM
Molybdenum	3.40	2.00	5.00	J	µg/L	1	07/28/17 04:30 PM
Potassium	1800	100	300		µg/L	1	07/28/17 04:30 PM
Selenium	2.48	2.00	5.00	J	µg/L	1	07/28/17 04:30 PM
Sodium	170000	2000	6000		µg/L	20	07/31/17 11:32 AM
Thallium	ND	0.500	1.50		µg/L	1	07/28/17 04:30 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	ND	0.0800	0.200		µg/L	1	07/25/17 01:25 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	326	10.0	20.0		mg/L @ pH 4.53	1	07/21/17 03:03 PM
Alkalinity, Carbonate (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.53	1	07/21/17 03:03 PM
Alkalinity, Hydroxide (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.53	1	07/21/17 03:03 PM
Alkalinity, Total (As CaCO3)	326	20.0	20.0		mg/L @ pH 4.53	1	07/21/17 03:03 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *31-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	MW-11
Project:	Coleto Creek Power	**Lab ID:**	1707200-07
Project No:	CCR Sampling (58057)	**Collection Date:**	07/19/17 08:43 AM
Lab Order:	1707200	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	13.8	5.00	10.0		µg/L	1	07/25/17 04:14 PM
Dissolved Molybdenum	8.27	2.00	5.00		µg/L	1	07/25/17 04:14 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	ND	0.800	2.50		µg/L	1	07/28/17 04:32 PM
Arsenic	22.4	2.00	5.00		µg/L	1	07/28/17 04:32 PM
Barium	70.9	3.00	10.0		µg/L	1	07/28/17 04:32 PM
Beryllium	ND	0.300	1.00		µg/L	1	07/28/17 04:32 PM
Boron	1170	100	300		µg/L	10	07/31/17 11:34 AM
Cadmium	ND	0.300	1.00		µg/L	1	07/28/17 04:32 PM
Calcium	48600	1000	3000		µg/L	10	07/31/17 11:34 AM
Chromium	7.62	2.00	5.00		µg/L	1	07/28/17 04:32 PM
Cobalt	ND	3.00	5.00		µg/L	1	07/28/17 04:32 PM
Lead	1.80	0.300	1.00		µg/L	1	07/28/17 04:32 PM
Lithium	13.7	5.00	10.0		µg/L	1	07/28/17 04:32 PM
Magnesium	4110	100	300		µg/L	1	07/28/17 04:32 PM
Molybdenum	7.83	2.00	5.00		µg/L	1	07/28/17 04:32 PM
Potassium	1720	100	300		µg/L	1	07/28/17 04:32 PM
Selenium	ND	2.00	5.00		µg/L	1	07/28/17 04:32 PM
Sodium	63100	1000	3000		µg/L	10	07/31/17 11:34 AM
Thallium	ND	0.500	1.50		µg/L	1	07/28/17 04:32 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	ND	0.0800	0.200		µg/L	1	07/25/17 01:27 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	144	10.0	20.0		mg/L @ pH 4.5	1	07/21/17 03:09 PM
Alkalinity, Carbonate (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.5	1	07/21/17 03:09 PM
Alkalinity, Hydroxide (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.5	1	07/21/17 03:09 PM
Alkalinity, Total (As CaCO3)	144	20.0	20.0		mg/L @ pH 4.5	1	07/21/17 03:09 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *31-Jul-17*

CLIENT:	B-Environmental	**Client Sample ID:**	PS-3
Project:	Coleto Creek Power	**Lab ID:**	1707200-08
Project No:	CCR Sampling (58057)	**Collection Date:**	07/19/17 08:11 AM
Lab Order:	1707200	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS-ICPMS (0.45µ)		**SW6020A**					Analyst: **SP**
Dissolved Lithium	8.64	5.00	10.0	J	µg/L	1	07/25/17 04:16 PM
Dissolved Molybdenum	5.39	2.00	5.00		µg/L	1	07/25/17 04:16 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SP**
Antimony	ND	0.800	2.50		µg/L	1	07/28/17 04:34 PM
Arsenic	8.87	2.00	5.00		µg/L	1	07/28/17 04:34 PM
Barium	161	3.00	10.0		µg/L	1	07/28/17 04:34 PM
Beryllium	ND	0.300	1.00		µg/L	1	07/28/17 04:34 PM
Boron	2090	100	300		µg/L	10	07/31/17 11:36 AM
Cadmium	ND	0.300	1.00		µg/L	1	07/28/17 04:34 PM
Calcium	87900	1000	3000		µg/L	10	07/31/17 11:36 AM
Chromium	5.99	2.00	5.00		µg/L	1	07/28/17 04:34 PM
Cobalt	ND	3.00	5.00		µg/L	1	07/28/17 04:34 PM
Lead	1.46	0.300	1.00		µg/L	1	07/28/17 04:34 PM
Lithium	7.49	5.00	10.0	J	µg/L	1	07/28/17 04:34 PM
Magnesium	4090	100	300		µg/L	1	07/28/17 04:34 PM
Molybdenum	5.11	2.00	5.00		µg/L	1	07/28/17 04:34 PM
Potassium	2490	100	300		µg/L	1	07/28/17 04:34 PM
Selenium	ND	2.00	5.00		µg/L	1	07/28/17 04:34 PM
Sodium	73800	1000	3000		µg/L	10	07/31/17 11:36 AM
Thallium	ND	0.500	1.50		µg/L	1	07/28/17 04:34 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **AH**
Mercury	ND	0.0800	0.200		µg/L	1	07/25/17 01:29 PM
ALKALINITY		**M2320 B**					Analyst: **BTJ**
Alkalinity, Bicarbonate (As CaCO3)	179	10.0	20.0		mg/L @ pH 4.51	1	07/21/17 03:15 PM
Alkalinity, Carbonate (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.51	1	07/21/17 03:15 PM
Alkalinity, Hydroxide (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.51	1	07/21/17 03:15 PM
Alkalinity, Total (As CaCO3)	179	20.0	20.0		mg/L @ pH 4.51	1	07/21/17 03:15 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

CLIENT: B-Environmental
Work Order: 1707200
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_170725A

The QC data in batch 81574 applies to the following samples: 1707200-01A, 1707200-02A, 1707200-03A, 1707200-04A, 1707200-05A, 1707200-06A, 1707200-07A, 1707200-08A

Sample ID	MB-81574	Batch ID:	81574	TestNo:	SW7470A	Units:	µg/L
SampType:	MBLK	Run ID:	CETAC2_HG_170725A	Analysis Date:	7/25/2017 12:17:14 PM	Prep Date:	7/24/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.200								

Sample ID	LCS-81574	Batch ID:	81574	TestNo:	SW7470A	Units:	µg/L
SampType:	LCS	Run ID:	CETAC2_HG_170725A	Analysis Date:	7/25/2017 12:19:30 PM	Prep Date:	7/24/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	2.03	0.200	2.000	0	102	85	115			

Sample ID	LCSD-81574	Batch ID:	81574	TestNo:	SW7470A	Units:	µg/L
SampType:	LCSD	Run ID:	CETAC2_HG_170725A	Analysis Date:	7/25/2017 12:21:46 PM	Prep Date:	7/24/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	2.03	0.200	2.000	0	102	85	115	0	15	

Sample ID	1707200-05A SD	Batch ID:	81574	TestNo:	SW7470A	Units:	µg/L
SampType:	SD	Run ID:	CETAC2_HG_170725A	Analysis Date:	7/25/2017 1:16:15 PM	Prep Date:	7/24/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0	1.00	0	0				0	10	

Sample ID	1707200-05A PDS	Batch ID:	81574	TestNo:	SW7470A	Units:	µg/L
SampType:	PDS	Run ID:	CETAC2_HG_170725A	Analysis Date:	7/25/2017 1:18:32 PM	Prep Date:	7/24/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	2.05	0.200	2.500	0	82.0	85	115			S

Sample ID	1707200-05A MS	Batch ID:	81574	TestNo:	SW7470A	Units:	µg/L
SampType:	MS	Run ID:	CETAC2_HG_170725A	Analysis Date:	7/25/2017 1:20:48 PM	Prep Date:	7/24/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	1.70	0.200	2.000	0	85.0	80	120			

Sample ID	1707200-05A MSD	Batch ID:	81574	TestNo:	SW7470A	Units:	µg/L
SampType:	MSD	Run ID:	CETAC2_HG_170725A	Analysis Date:	7/25/2017 1:23:05 PM	Prep Date:	7/24/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	1.76	0.200	2.000	0	88.0	80	120	3.47	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707200
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170725B

The QC data in batch 81597 applies to the following samples: 1707200-01B, 1707200-02B, 1707200-03B, 1707200-04B, 1707200-05B, 1707200-06B, 1707200-07B, 1707200-08B

Sample ID	MB-81597	Batch ID:	81597	TestNo:	SW6020A	Units:	µg/L
SampType:	MBLK	Run ID:	ICP-MS4_170725B	Analysis Date:	7/25/2017 3:16:00 PM	Prep Date:	7/25/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	ND	10.0								
Molybdenum	ND	5.00								

Sample ID	LCS-81597	Batch ID:	81597	TestNo:	SW6020A	Units:	µg/L
SampType:	LCS	Run ID:	ICP-MS4_170725B	Analysis Date:	7/25/2017 3:18:00 PM	Prep Date:	7/25/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	200	10.0	200.0	0	100	80	120			
Molybdenum	196	5.00	200.0	0	97.9	80	120			

Sample ID	LCSD-81597	Batch ID:	81597	TestNo:	SW6020A	Units:	µg/L
SampType:	LCSD	Run ID:	ICP-MS4_170725B	Analysis Date:	7/25/2017 3:20:00 PM	Prep Date:	7/25/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	204	10.0	200.0	0	102	80	120	1.74	15	
Molybdenum	195	5.00	200.0	0	97.3	80	120	0.562	15	

Sample ID	1707200-05B SD	Batch ID:	81597	TestNo:	SW6020A	Units:	µg/L
SampType:	SD	Run ID:	ICP-MS4_170725B	Analysis Date:	7/25/2017 4:02:00 PM	Prep Date:	7/25/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0	50.0	0	12.78				0	10	
Molybdenum	122	25.0	0	124.6				2.37	10	

Sample ID	1707200-05B PDS	Batch ID:	81597	TestNo:	SW6020A	Units:	µg/L
SampType:	PDS	Run ID:	ICP-MS4_170725B	Analysis Date:	7/25/2017 4:22:00 PM	Prep Date:	7/25/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	217	10.0	200.0	12.78	102	80	120			
Molybdenum	318	5.00	200.0	124.6	96.9	80	120			

Sample ID	1707200-05B MS	Batch ID:	81597	TestNo:	SW6020A	Units:	µg/L
SampType:	MS	Run ID:	ICP-MS4_170725B	Analysis Date:	7/25/2017 4:24:00 PM	Prep Date:	7/25/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Lithium	213	10.0	200.0	12.78	100	80	120			
Dissolved Molybdenum	320	5.00	200.0	124.6	97.7	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707200
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170725B

Sample ID	1707200-05B MSD	Batch ID:	81597	TestNo:	SW6020A	Units:	µg/L
SampType:	MSD	Run ID:	ICP-MS4_170725B	Analysis Date:	7/25/2017 4:26:00 PM	Prep Date:	7/25/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Lithium	214	10.0	200.0	12.78	101	80	120	0.553	15	
Dissolved Molybdenum	325	5.00	200.0	124.6	100	80	120	1.59	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707200
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170728B

The QC data in batch 81567 applies to the following samples: 1707200-01A, 1707200-02A, 1707200-03A, 1707200-04A, 1707200-05A, 1707200-06A, 1707200-07A, 1707200-08A

Sample ID **MB-81567** Batch ID: **81567** TestNo: **SW6020A** Units: **µg/L**
SampType: **MBLK** Run ID: **ICP-MS4_170728B** Analysis Date: **7/28/2017 3:33:00 PM** Prep Date: **7/24/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	2.50								
Arsenic	ND	5.00								
Barium	ND	10.0								
Beryllium	ND	1.00								
Boron	ND	30.0								
Cadmium	ND	1.00								
Calcium	ND	300								
Chromium	ND	5.00								
Cobalt	ND	5.00								
Lead	ND	1.00								
Lithium	ND	10.0								
Magnesium	ND	300								
Molybdenum	ND	5.00								
Potassium	ND	300								
Selenium	ND	5.00								
Thallium	ND	1.50								

Sample ID **LCS-81567** Batch ID: **81567** TestNo: **SW6020A** Units: **µg/L**
SampType: **LCS** Run ID: **ICP-MS4_170728B** Analysis Date: **7/28/2017 3:35:00 PM** Prep Date: **7/24/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	196	2.50	200.0	0	97.9	80	120			
Arsenic	191	5.00	200.0	0	95.6	80	120			
Barium	193	10.0	200.0	0	96.3	80	120			
Beryllium	191	1.00	200.0	0	95.5	80	120			
Boron	197	30.0	200.0	0	98.5	80	120			
Cadmium	196	1.00	200.0	0	98.2	80	120			
Calcium	4920	300	5000	0	98.4	80	120			
Chromium	197	5.00	200.0	0	98.4	80	120			
Cobalt	194	5.00	200.0	0	96.9	80	120			
Lead	192	1.00	200.0	0	96.2	80	120			
Lithium	197	10.0	200.0	0	98.3	80	120			
Magnesium	5000	300	5000	0	99.9	80	120			
Molybdenum	190	5.00	200.0	0	94.9	80	120			
Potassium	5020	300	5000	0	100	80	120			
Selenium	199	5.00	200.0	0	99.6	80	120			
Thallium	197	1.50	200.0	0	98.7	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL
DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707200
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170728B

Sample ID **LCSD-81567**	Batch ID: **81567**	TestNo: **SW6020A**	Units: **µg/L**
SampType: **LCSD**	Run ID: **ICP-MS4_170728B**	Analysis Date: **7/28/2017 3:37:00 PM**	Prep Date: **7/24/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	194	2.50	200.0	0	96.8	80	120	1.12	15	
Arsenic	194	5.00	200.0	0	97.1	80	120	1.57	15	
Barium	193	10.0	200.0	0	96.6	80	120	0.308	15	
Beryllium	199	1.00	200.0	0	99.5	80	120	4.10	15	
Boron	201	30.0	200.0	0	100	80	120	1.84	15	
Cadmium	196	1.00	200.0	0	97.8	80	120	0.413	15	
Calcium	4950	300	5000	0	99.0	80	120	0.546	15	
Chromium	200	5.00	200.0	0	99.8	80	120	1.42	15	
Cobalt	196	5.00	200.0	0	98.1	80	120	1.29	15	
Lead	192	1.00	200.0	0	96.2	80	120	0.004	15	
Lithium	199	10.0	200.0	0	99.3	80	120	1.04	15	
Magnesium	5030	300	5000	0	101	80	120	0.774	15	
Molybdenum	189	5.00	200.0	0	94.7	80	120	0.278	15	
Potassium	5050	300	5000	0	101	80	120	0.544	15	
Selenium	205	5.00	200.0	0	102	80	120	2.61	15	
Thallium	198	1.50	200.0	0	98.8	80	120	0.052	15	

Sample ID **1707200-05A SD**	Batch ID: **81567**	TestNo: **SW6020A**	Units: **µg/L**
SampType: **SD**	Run ID: **ICP-MS4_170728B**	Analysis Date: **7/28/2017 4:22:00 PM**	Prep Date: **7/24/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0	12.5	0	0				0	10	
Arsenic	14.8	25.0	0	14.65				1.13	10	
Barium	63.6	50.0	0	63.29				0.445	10	
Beryllium	0	5.00	0	0				0	10	
Cadmium	0	5.00	0	0				0	10	
Chromium	0	25.0	0	9.628				0	10	
Cobalt	0	25.0	0	0				0	10	
Lead	0	5.00	0	0.6840				0	10	
Lithium	0	50.0	0	12.70				0	10	
Magnesium	9170	1500	0	9008				1.76	10	
Molybdenum	120	25.0	0	121.1				0.558	10	
Potassium	906	1500	0	925.8				2.16	10	
Selenium	0	25.0	0	0				0	10	
Thallium	0	7.50	0	0				0	10	

Sample ID **1707200-05A PDS**	Batch ID: **81567**	TestNo: **SW6020A**	Units: **µg/L**
SampType: **PDS**	Run ID: **ICP-MS4_170728B**	Analysis Date: **7/28/2017 4:40:00 PM**	Prep Date: **7/24/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	194	2.50	200.0	0	97.0	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707200
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170728B

Sample ID 1707200-05A PDS	Batch ID: 81567	TestNo: SW6020A	Units: µg/L
SampType: PDS	Run ID: ICP-MS4_170728B	Analysis Date: 7/28/2017 4:40:00 PM	Prep Date: 7/24/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	213	5.00	200.0	14.65	99.2	80	120			
Barium	261	10.0	200.0	63.29	99.1	80	120			
Beryllium	196	1.00	200.0	0	98.2	80	120			
Cadmium	195	1.00	200.0	0	97.6	80	120			
Chromium	213	5.00	200.0	9.628	102	80	120			
Cobalt	202	5.00	200.0	0	101	80	120			
Lead	198	1.00	200.0	0.6840	98.5	80	120			
Lithium	198	10.0	200.0	12.70	92.8	80	120			
Magnesium	13100	300	5000	9008	82.6	80	120			
Molybdenum	308	5.00	200.0	121.1	93.5	80	120			
Potassium	5710	300	5000	925.8	95.6	80	120			
Selenium	202	5.00	200.0	0	101	80	120			
Thallium	202	1.50	200.0	0	101	80	120			

Sample ID 1707200-05A MS	Batch ID: 81567	TestNo: SW6020A	Units: µg/L
SampType: MS	Run ID: ICP-MS4_170728B	Analysis Date: 7/28/2017 4:42:00 PM	Prep Date: 7/24/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	192	2.50	200.0	0	95.9	80	120			
Arsenic	214	5.00	200.0	14.65	99.7	80	120			
Barium	257	10.0	200.0	63.29	96.8	80	120			
Beryllium	182	1.00	200.0	0	91.0	80	120			
Cadmium	191	1.00	200.0	0	95.4	80	120			
Chromium	204	5.00	200.0	9.628	97.1	80	120			
Cobalt	197	5.00	200.0	0	98.6	80	120			
Lead	196	1.00	200.0	0.6840	97.6	80	120			
Lithium	197	10.0	200.0	12.70	92.1	80	120			
Magnesium	13900	300	5000	9008	97.6	80	120			
Molybdenum	315	5.00	200.0	121.1	97.2	80	120			
Potassium	5960	300	5000	925.8	101	80	120			
Selenium	205	5.00	200.0	0	102	80	120			
Thallium	201	1.50	200.0	0	101	80	120			

Sample ID 1707200-05A MSD	Batch ID: 81567	TestNo: SW6020A	Units: µg/L
SampType: MSD	Run ID: ICP-MS4_170728B	Analysis Date: 7/28/2017 4:44:00 PM	Prep Date: 7/24/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	193	2.50	200.0	0	96.7	80	120	0.829	15	
Arsenic	214	5.00	200.0	14.65	99.7	80	120	0.021	15	
Barium	261	10.0	200.0	63.29	99.1	80	120	1.78	15	
Beryllium	186	1.00	200.0	0	93.2	80	120	2.37	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707200
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170728B

Sample ID **1707200-05A MSD**	Batch ID: **81567**	TestNo: **SW6020A**	Units: **µg/L**
SampType: **MSD**	Run ID: **ICP-MS4_170728B**	Analysis Date: **7/28/2017 4:44:00 PM**	Prep Date: **7/24/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	191	1.00	200.0	0	95.5	80	120	0.109	15	
Chromium	203	5.00	200.0	9.628	96.5	80	120	0.577	15	
Cobalt	197	5.00	200.0	0	98.6	80	120	0.053	15	
Lead	196	1.00	200.0	0.6840	97.8	80	120	0.184	15	
Lithium	199	10.0	200.0	12.70	93.0	80	120	0.894	15	
Magnesium	13900	300	5000	9008	98.8	80	120	0.448	15	
Molybdenum	317	5.00	200.0	121.1	97.9	80	120	0.473	15	
Potassium	5970	300	5000	925.8	101	80	120	0.269	15	
Selenium	204	5.00	200.0	0	102	80	120	0.346	15	
Thallium	200	1.50	200.0	0	100	80	120	0.701	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707200
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170731A

The QC data in batch 81567 applies to the following samples: 1707200-01A, 1707200-02A, 1707200-03A, 1707200-04A, 1707200-05A, 1707200-06A, 1707200-07A, 1707200-08A

Sample ID	MB-81567	Batch ID:	81567	TestNo:	SW6020A	Units:	µg/L
SampType:	MBLK	Run ID:	ICP-MS4_170731A	Analysis Date:	7/31/2017 11:12:00 AM	Prep Date:	7/24/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	300								

Sample ID	LCS-81567	Batch ID:	81567	TestNo:	SW6020A	Units:	µg/L
SampType:	LCS	Run ID:	ICP-MS4_170731A	Analysis Date:	7/31/2017 11:14:00 AM	Prep Date:	7/24/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	5310	300	5000	0	106	80	120			

Sample ID	LCSD-81567	Batch ID:	81567	TestNo:	SW6020A	Units:	µg/L
SampType:	LCSD	Run ID:	ICP-MS4_170731A	Analysis Date:	7/31/2017 11:16:00 AM	Prep Date:	7/24/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	5370	300	5000	0	107	80	120	1.25	15	

Sample ID	1707200-05A SD	Batch ID:	81567	TestNo:	SW6020A	Units:	µg/L
SampType:	SD	Run ID:	ICP-MS4_170731A	Analysis Date:	7/31/2017 11:22:00 AM	Prep Date:	7/24/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	9460	3000	0	8738				7.98	10	
Calcium	56000	30000	0	56570				0.943	10	
Sodium	132000	30000	0	135700				2.45	10	

Sample ID	1707200-05A PDS	Batch ID:	81567	TestNo:	SW6020A	Units:	µg/L
SampType:	PDS	Run ID:	ICP-MS4_170731A	Analysis Date:	7/31/2017 11:42:00 AM	Prep Date:	7/24/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	13300	600	4000	8738	115	80	120			
Calcium	159000	6000	100000	56570	102	80	120			
Sodium	243000	6000	100000	135700	108	80	120			

Sample ID	1707200-05A MS	Batch ID:	81567	TestNo:	SW6020A	Units:	µg/L
SampType:	MS	Run ID:	ICP-MS4_170731A	Analysis Date:	7/31/2017 11:44:00 AM	Prep Date:	7/24/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	9330	600	200.0	8738	294	80	120			S
Calcium	62800	6000	5000	56570	125	80	120			S
Sodium	142000	6000	5000	135700	132	80	120			S

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707200
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170731A

Sample ID **1707200-05A MSD**	Batch ID: **81567**	TestNo: **SW6020A**	Units: **µg/L**
SampType: **MSD**	Run ID: **ICP-MS4_170731A**	Analysis Date: **7/31/2017 11:46:00 AM**	Prep Date: **7/24/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	9320	600	200.0	8738	293	80	120	0.037	15	S
Calcium	62300	6000	5000	56570	115	80	120	0.774	15	
Sodium	140000	6000	5000	135700	95.2	80	120	1.30	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: B-Environmental
Work Order: 1707200
Project: Coleto Creek Power

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_170721B

The QC data in batch 81534 applies to the following samples: 1707200-01C, 1707200-02C, 1707200-03C, 1707200-04C, 1707200-05C, 1707200-06C, 1707200-07C, 1707200-08C

Sample ID **MB-81534** Batch ID: **81534** TestNo: **M2320 B** Units: **mg/L @ pH 4.28**
SampType: **MBLK** Run ID: **TITRATOR_170721B** Analysis Date: **7/21/2017 9:33:00 AM** Prep Date: **7/21/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	ND	20.0								
Alkalinity, Carbonate (As CaCO3)	ND	20.0								
Alkalinity, Hydroxide (As CaCO3)	ND	20.0								
Alkalinity, Total (As CaCO3)	ND	20.0								

Sample ID **LCS-81534** Batch ID: **81534** TestNo: **M2320 B** Units: **mg/L @ pH 4.2**
SampType: **LCS** Run ID: **TITRATOR_170721B** Analysis Date: **7/21/2017 9:37:00 AM** Prep Date: **7/21/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	50.8	20.0	50.00	0	102	74	129			

Sample ID **1707179-01C-DUP** Batch ID: **81534** TestNo: **M2320 B** Units: **mg/L @ pH 4.09**
SampType: **DUP** Run ID: **TITRATOR_170721B** Analysis Date: **7/21/2017 10:29:00 AM** Prep Date: **7/21/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	0	20.0	0	0				0	20	
Alkalinity, Carbonate (As CaCO3)	0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	0	20.0	0	0				0	20	

Sample ID **1707179-08C-DUP** Batch ID: **81534** TestNo: **M2320 B** Units: **mg/L @ pH 4.52**
SampType: **DUP** Run ID: **TITRATOR_170721B** Analysis Date: **7/21/2017 11:54:00 AM** Prep Date: **7/21/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	324	20.0	0	322.8				0.340	20	
Alkalinity, Carbonate (As CaCO3)	0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	324	20.0	0	322.8				0.340	20	

Sample ID **1707200-05C-DUP** Batch ID: **81534** TestNo: **M2320 B** Units: **mg/L @ pH 4.53**
SampType: **DUP** Run ID: **TITRATOR_170721B** Analysis Date: **7/21/2017 2:51:00 PM** Prep Date: **7/21/2017**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	229	20.0	0	223.3				2.35	20	
Alkalinity, Carbonate (As CaCO3)	0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	229	20.0	0	223.3				2.35	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

2609 North River Road, Port Allen, Louisiana 70767
(800) 401-4277 -- FAX (225) 381-2996

ARS International, LLC

Laboratory Analysis Report

ARS1-17-02195

Prepared for:

B-Environmental

Kevin Baros
1606 East Brazos Street
Suite D
Victoria, TX 77901

dbenviro@suddenlinkmail.com; cbenviro@suddenlinkmail.com
swbenviro@suddenlinkmail.com

Phone: 361-572-8224
Fax: 361-572-4115

Project Manager Review

Management Review

Notes: ARS International, LLC assumes no liability for the use or the interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

Contact Person: Questions regarding this analytical report should be addressed to:

Project Manager

ProjectManagers@amrad.com

Phone: 225.381.2991
Fax: 225.381.2996

LELAP Cert# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-02195
Client Sample ID: S172010707 (Batch 58057)
Sample Collection Date: 07/19/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02195-001
Date Received: 07/21/17
Report Date: 08/25/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.145	0.113	0.152	0.058	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/18/17 8:07	CTRAMEL	101%
Ra-228	0.635	0.729	1.205	0.562	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/11/17 12:00	CTRAMEL	95%

Project Manager Review

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-02195
Client Sample ID: S172010710 (Batch 58057)
Sample Collection Date: 07/19/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02195-002
Date Received: 07/21/17
Report Date: 08/25/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.191	0.146	0.208	0.085	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/18/17 8:07	CTRAMEL	88%
Ra-228	-0.137	0.766	1.405	0.653	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/11/17 12:00	CTRAMEL	76%

Project Manager Review

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-02195
Client Sample ID: S17201071A (Batch 58057)
Sample Collection Date: 07/19/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02195-003
Date Received: 07/21/17
Report Date: 08/25/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.140	0.149	0.238	0.100	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/18/17 8:07	CTRAMEL	102%
Ra-228	0.444	0.701	1.189	0.554	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/11/17 12:00	CTRAMEL	96%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-02195
Client Sample ID: S172010711 (Batch 58057)
Sample Collection Date: 07/19/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02195-004
Date Received: 07/21/17
Report Date: 08/25/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.304	0.168	0.204	0.084	NP		pCi/L	ARS-010/EPA 903.0/904.0	08/18/17 8:07	CTRAMEL	104%
Ra-228	0.517	0.713	1.197	0.554	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/11/17 12:00	CTRAMEL	86%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-02195
Client Sample ID: S172010718 (Batch 58057)
Sample Collection Date: 07/19/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02195-005
Date Received: 07/21/17
Report Date: 08/25/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.650	0.231	0.172	0.066	NP		pCi/L	ARS-010/EPA 903.0/904.0	08/18/17 8:07	CTRAMEL	96%
Ra-228	1.482	0.813	1.178	0.545	NP		pCi/L	ARS-010/EPA 903.0/904.0	08/11/17 12:00	CTRAMEL	90%

Project Manager Review

LELAP Certificate# 01949

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-02195
Client Sample ID: S17201071C (Batch 58057)
Sample Collection Date: 07/19/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02195-006
Date Received: 07/21/17
Report Date: 08/25/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.274	0.151	0.173	0.069	NP		pCi/L	ARS-010/EPA 903.0/904.0	08/24/17 8:24	CTRAMEL	101%
Ra-228	0.801	0.647	1.018	0.470	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/17/17 12:05	CTRAMEL	95%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-02195
Client Sample ID: S172010712 (Batch 58057)
Sample Collection Date: 07/19/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02195-007
Date Received: 07/21/17
Report Date: 08/25/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.579	0.210	0.188	0.077	NP		pCi/L	ARS-010/EPA 903.0/904.0	08/24/17 8:24	CTRAMEL	100%
Ra-228	0.972	0.744	1.163	0.540	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/17/17 12:05	CTRAMEL	91%

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-17-02195
Client Sample ID: S17201071D (Batch 58057)
Sample Collection Date: 07/19/17
Sample Matrix: Aqueous
Percent Solids: N/A

Request or PO Number: N/A
ARS Sample ID: ARS1-17-02195-008
Date Received: 07/21/17
Report Date: 08/25/17

Radiochemistry

Analysis Description	Analysis Results	CSU +/- 2 s	MDC	DLC	CRDL	Qual	Analysis Units	Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Ra-226	0.771	0.267	0.243	0.103	NP		pCi/L	ARS-010/EPA 903.0/904.0	08/24/17 8:24	CTRAMEL	101%
Ra-228	0.748	0.721	1.169	0.544	NP	U	pCi/L	ARS-010/EPA 903.0/904.0	08/17/17 12:05	CTRAMEL	94%

Project Manager Review

LELAP Certificate# 01949

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

INTERNATIONAL

QC Results Report

Sample Delivery Group: ARS1-17-02166

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-01668	LCS	RA-226	22.921	3.706	0.115	26.901	N/A	pCi/L	ARS-010/EPA 903	8/11/17 10:22	CT	85	75%-125%
ARS1-B17-01668	LCS	RA-228	38.943	6.487	1.152	39.784	N/A	pCi/L	ARS-010/EPA 904	8/11/17 10:22	CT	98	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-01668	MBL	RA-226	0.077	0.068	0.101	NA	U	pCi/L	ARS-010/EPA 903	8/11/17 10:22	CT
ARS1-B17-01668	MBL	RA-228	0.185	0.389	0.670	NA	U	pCi/L	ARS-010/EPA 904	8/11/17 10:22	CT

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-01668	LCSD	RA-226	22.921	3.706	24.211	3.916	N/A	pCi/L	ARS-010/EPA 903	8/11/17 10:22	CT	0.17	< 1
ARS1-B17-01668	LCSD	RA-228	38.943	6.487	39.168	6.506	N/A	pCi/L	ARS-010/EPA 904	8/11/17 10:22	CT	0.02	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-01668	LCSD	RA-226	22.921	3.706	24.211	3.916	N/A	pCi/L	ARS-010/EPA 903	8/11/17 10:22	CT	0.24	< 3
ARS1-B17-01668	LCSD	RA-228	38.943	6.487	39.168	6.506	N/A	pCi/L	ARS-010/EPA 904	8/11/17 10:22	CT	0.02	< 3

Matrix Spike

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery(%)	MS Acceptance Range
ARS1-B17-01668	MS	Ra-226	53.446	8.608	0.170	55.738	N/A	pCi/L	ARS-010/EPA 903	8/18/17 10:06	CT	96	60%-140%
ARS1-B17-01668	MS	Ra-228	40.649	6.788	1.066	51.500	N/A	pCi/L	ARS-010/EPA 904	8/11/17 14:00	CT	79	60%-140%
ARS1-B17-01668	MSD	Ra-226	57.014	9.175	0.162	55.900	N/A	pCi/L	ARS-010/EPA 903	8/18/17 10:06	CT	102	60%-140%
ARS1-B17-01668	MSD	Ra-228	41.834	7.055	1.580	51.569	N/A	pCi/L	ARS-010/EPA 904	8/11/17 14:00	CT	81	60%-140%

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

INTERNATIONAL

QC Results Report

Sample Delivery Group: ARS1-17-02195

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B17-01711	LCS	RA-226	28.100	4.532	0.104	27.301	N/A	pCi/L	ARS-010/EPA 903	8/24/17 10:23	CT	103	75%-125%
ARS1-B17-01711	LCS	RA-228	32.662	5.478	1.115	39.784	N/A	pCi/L	ARS-010/EPA 904	8/24/17 10:23	CT	82	75%-125%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (2s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B17-01711	MBL	RA-226	0.042	0.074	0.129	NA	U	pCi/L	ARS-010/EPA 903	8/24/17 10:23	CT
ARS1-B17-01711	MBL	RA-228	0.211	0.366	0.624	NA	U	pCi/L	ARS-010/EPA 904	8/24/17 10:23	CT

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B17-01711	LCSD	RA-226	28.100	4.532	28.639	4.619	N/A	pCi/L	ARS-010/EPA 903	8/24/17 10:23	CT	0.06	< 1
ARS1-B17-01711	LCSD	RA-228	32.662	5.478	31.169	5.226	N/A	pCi/L	ARS-010/EPA 904	8/24/17 10:23	CT	0.14	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (2s)	Result 2	CSU 2 (2s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B17-01711	LCSD	RA-226	28.100	4.532	28.639	4.619	N/A	pCi/L	ARS-010/EPA 903	8/24/17 10:23	CT	0.08	< 3
ARS1-B17-01711	LCSD	RA-228	32.662	5.478	31.169	5.226	N/A	pCi/L	ARS-010/EPA 904	8/24/17 10:23	CT	0.20	< 3

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

ARS INTERNATIONAL
2609 North River Road • Port Allen, Louisiana 70767
1 (800) 401-4277 • Fax (225) 381-2998

Notes (Case Narrative):

Comments:

1.0) All MDA/MDC values are calculated on a sample specific basis.
2.0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.
3.0) Data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.
4.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix. Modified analyses are indicated by the subsequent addition of "m" to the procedure number (i.e. 900.0M).
5.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than the actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
6.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228 (Gamma Spectroscopy only).
7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234 (Gamma Spectroscopy only).
8.0) All gamma spectroscopy was performed utilizing high purity germanium detectors (**HPGe**).
9.0) ARS makes every attempt to match sample density to calibrated density; however, in some cases, it is not practical or possible to do so and data results may be affected (Gamma Spectroscopy only).
10.0) Gamma spectroscopy results are calculated values based on the **ORTEC®** GammaVision ENV32 Analysis Engine.
11.0) ACLASS DOD and ISO 17025 certification applies only to the following analytes and methods: Gross Alpha and Gross Beta (EPA 900, SM7110B&C, SW846 9310); Radium 226 (EPA 903, EPA 903.1, SM 7500 Ra-B, SW846 9315); Radium 228 (EPA 904, SM 7500 Ra-B SW846 9320); Iodine-131(EPA 901.1); Uranium by ICPMS (EPA 200.8); Strontium 89/90 (EPA 905, Eichrom SRW01, HASL 300 Sr-03-RC); Tritium (EPA 906, EPA 906M); Gamma Emitters (EPA 901.1, SM7120B, HASL 300 Ga-01-R); Americium-241, Curium 242/244, Plutonium 239/240 and 241, Thorium 228/230/232, Uranium 234/233 and 238 (Eichrom ACW03 VBS); Lead 210 (HASL 300 Pb-01-RC, Eichrom OTW01); Polonium 210 (HASL 300 Po-01-RC, HASL 300 Po-02-RC); Technetium-99 (Eichrom TCW02, Eichrom TCS01M).

Method References:

1.0) **EPA 600/4-80-032**; Prescribed Procedures for the Measurements of Radioactivity in Drinking Water, August 1980.
2.0) **Standard Methods for the Examination of Water and Wastewater** (On-Line Edition)
3.0) **EPA SW-846**; Test Methods for Evaluating Solid Waste, (On-Line edition)
4.0) **EPA 600/4/79-020**; Methods for Chemical Analysis of Water and Waste, March 1983.
5.0) **HASL 300**; The Procedures Manual of the Environmental Measurements Laboratory, Volume I, 28th Edition February, 1997.

Definitions:

CRDL	Contract Required Detection Limit
CSU	Combined Standard Uncertainty
DLC	Decision Level Concentration (ANSI N42.23) or critical level
DO	Duplicate Original
DUP	Method Duplicate
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
MDA	Minimum Detectable Activity
MDC	(Minimum Detectable Concentration) minimum concentration of the analyte that ARS can detect utilizing the specific analysis
MBL	Method Blank
MS/MSD	Matrix Spike/Matrix Spike Duplicate
N/A	Not Applicable
NP	Not Provided
NR	Not Referenced
LOD	Limit of Detection
LOQ	Limit of Quantitation

Data Qualifiers:

B	The analyte is found in both the associated method blank and the sample. This flag indicates probable blank contamination.
D	Sample analysis accomplished through dilution.
J	The reported result is an estimated value above the limit of detection but outside of quantitation range (e.g., matrix interference was observed).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).
U	Activity is below the MDC, MDA, MDL, or LOD
N	The analyte is a tentatively identified compound using mass spectrometry or any non-customer requested compounds that are tentatively identified.
*	LCS/LCSD or MS/MSD fails RPD criteria.
S	Spike
SC	Subcontracted out to another qualified laboratory
H	Holding time exceeded

B Environmental Laboratory, LLC

1606 E Brazos Suite D Victoria, Texas 77901 ph. (361) 572-8224

Chain Of Custody Rec

Batch # 58057

TEMP UN-C: 7.6 | Page 1 of 2

THERM ID# 3 | TEMP Corr: 7.4

X Check box if Billing is the same as Report Information

Customer / Report Information | **Billing Information**

Name: Coleto Creek Power | Address:

Attention: Rick Coleman | Attention: PO #

Address: P.O. Box 8; Fannin, TX 77960 | Project: CCR Sampling | Comments:

Phone: 361-788-5145 | FAX:

EMAIL: richard.coleman@dynegy.com

Requested Analysis | Completed By laboratory

Sample Information

Collected By:

Client / Field Sample ID	Collected Date	Collected Time	C = Composite G = Grab	Matrix (DW - Drinking H20, S - Solid, WW - Waste H20, SL - Sludge, L - Liquid, w - Water)	Container TYPE	Container NUMBER	Container Size	Preservative	Metals*	Cl, F*, SO4	pH	TDS	Ra226 & Ra228	Alk:Tot, Carb, BiCarb	Diss Li & Mo	Custody Seals Present / Intact	LAB Sample Number
Dup 2	7-19-17		G	WW	P	6	1L / 500mL / 250mL	H2SO4 ☐ H3PO4 ☐ ICE ☒ HNO3 ☒ NaOH ☐ HCL ☐ Na2SO3 ☐	X B	X C	X	X A	X E	X D	X F	Custody Seals Present: Yes ☐ No ☐ Intact: Yes ☐ No ☐	S172010707
MW-5		1105	G	WW	P	6	1L / 500mL / 250mL	H2SO4 ☐ H3PO4 ☐ ICE ☒ HNO3 ☒ NaOH ☐ HCL ☐ Na2SO3 ☐	X B	X C	X	X A	X E	X D	X F		S172010710
MW-9		1014	G	WW	P	6	1L / 500mL / 250mL	H2SO4 ☐ H3PO4 ☐ ICE ☒ HNO3 ☒ NaOH ☐ HCL ☐ Na2SO3 ☐	X B	X C	X	X A	X E	X D	X F		S17201071A
MW-9A		939	G	WW	P	6	1L / 500mL / 250mL	H2SO4 ☐ H3PO4 ☐ ICE ☒ HNO3 ☒ NaOH ☐ HCL ☐ Na2SO3 ☐	X B	X C	X	X A	X E	X D	X F		S172010711
MW-10		1255	G	WW	P	6	1L / 500mL / 250mL	H2SO4 ☐ H3PO4 ☐ ICE ☒ HNO3 ☒ NaOH ☐ HCL ☐ Na2SO3 ☐	X B	X C	X	X A	X E	X D	X F		S17201071B
MW-10 MS		1255	G	WW	P	6	1L / 500mL / 250mL	H2SO4 ☐ H3PO4 ☐ ICE ☒ HNO3 ☒ NaOH ☐ HCL ☐ Na2SO3 ☐	X B	X C	X	X A	X E	X D	X F		
MW-10 MSD		1255	G	WW	P	6	1L / 500mL / 250mL	H2SO4 ☐ H3PO4 ☐ ICE ☒ HNO3 ☒ NaOH ☐ HCL ☐ Na2SO3 ☐	X B	X C	X	X A	X E	X D	X F		

Required Turnaround: ☒ Routine (6-10 Business days) | Expedite / Rush: ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business days ☐ 5 Business days ☐ Other | REMARKS:

Surcharge will apply to RUSH TAT Authorized BY: | Container Type: P=Plastic, G=Glass, V=Voa, O=Other | Carrier ID :

Relinquished By:	Date: 7-19-17	Time: 1630	Received By:	Date: 7-19-17	Time: 16:30
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By	Date:	Time:	Received By:	Date:	Time:

FLuoride: MAL 0.25 mg/L Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Mg,K,Na, & Hg

B Environmental Laboratory, LLC
1606 E Brazos Suite D Victoria, Texas 77901 ph. (361) 572-8224

Chain Of Custody Rec

Batch # 58057

TEMP UN-C: 7.6 | Page 2 of 2

THERM ID# 3 | TEMP Corr: 7.4

Customer / Report Information

Name: Coleto Creek Power

Attention: Rick Coleman

Address: P.O. Box 8; Fannin, TX 77960

Billing Information X Check box if Billing is the same as Report Information

Address:

Attention: PO #

Project: CCR Sampling

Comments:

Phone: 361-788-5145 | FAX:

EMAIL: richard.coleman@dynegy.com

Sample Information

Collected By:

Matrix: DW - Drinking H20, S - Solid, WW - Waste H20, SL - Sludge, L - Liquid, w - Water

G = Grab, C = Composite

Client / Field Sample ID	Collected Date	Collected Time	G/C	Matrix	Container TYPE	NUMBER	Size	Preservative	Metals*	Cl, F*, SO4	pH	TDS	Ra226 & Ra228	Alk:Tot, Carb, BiCarb	Diss Li & Mo	LAB Sample Number
MW-10A	7-19-17	1338	G	WW	P	6	1L, 500mL, 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X B	X C	X A	X	X E	X D	X F	S17201071C
MW-11	↓	843	G	WW	P	6	1L, 500mL, 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X B	X C	X	X A	X E	X D	X F	S172010712
PS-3	↓	811	G	WW	P	6	1L, 500mL, 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X B	X C	X	X A	X E	X D	X F	S17201071D
			G	WW	P	6	1L, 500mL, 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X	
			G	WW	P	6	1L, 500mL, 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X	
			G	WW	P	6	1L, 500mL, 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X	
			G	WW	P	6	1L, 500mL, 250mL	☐ H2SO4 ☐ H3PO4 ☒ ICE ☐ ☒ HNO3 ☐ NaOH ☐ HCL ☐ Na2SO3	X	X	X	X	X	X	X	

Requested Analysis | Completed By laboratory

Custody Seals Present: Yes ☐ No ☐

Intact: Yes ☐ No ☐

Required Turnaround: ☒ Routine (6-10 Business days) Expedite / Rush: ☐ 1 Business Day ☐ 2 Business Days ☐ 3 Business days ☐ 5 Business days ☐ Other ______ REMARKS:

Surcharge will apply to RUSH TAT Authorized BY:

Container Type: P=Plastic, G=Glass, V=Voa, O=Other | Carrier ID :

Relinquished By: [signature]	Date: 7-19-17	Time: 1630	Received By: [signature]	Date: 7-19-17	Time: 16:30
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By	Date:	Time:	Received By:	Date:	Time:

FLuoride: MAL 0.25 mg/L Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Mg,K,Na, & Hg

Appendix C

Statistical Approach to Establishing Baseline Concentrations

Appendix C. STATISTICAL APPROACH TO ESTABLISHING BASELINE CONCENTRATIONS

This appendix summarizes the statistical approach used for establishing baseline groundwater quality concentrations for the Coleto Creek Primary Ash Pond (PAP) Coal Combustion Residual (CCR) groundwater monitoring system. The following statistical approach was selected to demonstrate groundwater compliance under the CCR Rule:

- Use of interwell data evaluations, which compare new sample data to data from upgradient or background monitoring wells.

- Use of upper prediction limits (UPLs) to develop site-specific background concentrations for all Appendix III and Appendix IV constituents. This approach is a common statistical method used to evaluate groundwater compliance for Subtitle D landfill facilities and is one of the approved options for groundwater quality data statistical evaluations under the CCR Rule.

- After every detection monitoring event, Appendix III constituent concentrations from each compliance well are compared to background UPLs to ascertain if a statistically significant increase above background exists. Background UPLs are based on a 1-of-2 resampling approach, meaning that if one or more constituent concentrations in a compliance well are above their respective baseline concentration, a resample can be collected to validate or invalidate the baseline concentration exceedance.

- If assessment monitoring is required, the 95% lower confidence limit of the mean (LCL) is calculated after each assessment monitoring event for each Appendix IV constituent and compliance well. The data set used to calculate LCLs is based on current and historical constituent concentrations for a compliance well. A statistically significant increase over the Groundwater Protection Standard (GWPS) has occurred at a CCR unit when the LCL for at least one assessment monitoring constituent at a well is greater than the appropriate GWPS. Development of the GWPSs is discussed in Section C.4.

This approach follows the Statistical Analysis Plan (SAP) (Golder, 2022) and conforms to the 40 CFR 257rules as well as EPA's *Unified Guidance: Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities* (EPA, 2009) (hereafter, referred to as the Unified Guidance) and the American Society for Testing and Materials (ASTM) standard D6312-17, *Developing Appropriate Statistical Approaches for Groundwater Detection Monitoring Programs at waste Disposal Facilities* (ASTM, 2017). The statistical methodology is designed to detect a release from the facility at the earliest indication so that it is protective of human health and the environment.

Section 257.94(b) of the CCR Rule requires that a minimum of eight independent groundwater samples from each background and downgradient well be collected and analyzed for the constituents listed in Appendix III and IV to Part 257 no later than October 17, 2017. To satisfy this requirement, eight groundwater monitoring events were performed from March 2017 through July 2017 using the three upgradient/background wells (BV-5, BV-21, and MW-8) and the six downgradient compliance wells (MW-4, MW-5, MW-6, MW-9, MW-10, and MW-11) in the Coleto Creek CCR monitoring well system.

Prior to performing background data evaluations, data from the upgradient wells were prepared for analysis. Methods for handling field duplicate samples and handling non-detects were implemented during this data preparation phase, as presented in Section C.1. Statistical assumptions were evaluated to assess the independence of background data prior to calculating the UPLs, as discussed in Section C.2. In order to calculate UPLs, the distribution of each data set was defined and a site-wide Type I experiment wise error rate was established. UPLs based on a 1-of-2 resampling approach were calculated for detected constituents to establish baseline values for wells hydraulically upgradient of the PAP, as further described in Section C.3. Details about the approach used to evaluate detection and assessment monitoring data after baseline concentrations were established are provided in Section C.4.

C.1 Data Preparation

Analytical data from wells in the groundwater monitoring network at a CCR unit during each sampling event are first reviewed for usability after final data packages are received from the laboratory. The analytical data are then prepared for statistical analysis. The raw sample data can be found in Tables C-1 and C-2 for the Appendix III and Appendix IV constituents, respectively.

Methods for handling duplicate and non-detect data are implemented during this data preparation phase to comply with the performance standards outlined in 40 CFR 257.93. Field duplicates and data rejected after data validation are removed from the data set. Only the primary samples are retained for the statistical evaluation.

In accordance with EPA guidance, non-detects were handled by using one of two approaches depending on the percentage of detected concentrations:

- If a constituent was detected in at least 85% of samples, a simple substitution method was used in which half of the sample detection limit was substituted as a proxy concentration (EPA, 2009; EPA, 2000).

- If a constituent was detected in at least 50% of the samples but no more than 85% of the samples, the Robust Regression Order Statistics (RROS) method was used to estimate summary statistics such as the mean and standard deviation (EPA, 2009).

If the constituent was detected in fewer than 50% of the samples, non-detects were handled by using nonparametric statistical approaches to evaluate the data and to prepare summary statistics (EPA, 2009; EPA, 2000). J-flagged data, estimated concentrations between the sample detection limit and the reporting limit, were defined as detected concentrations.

C.2 Statistical Assumptions

In accordance with Section 257.94(g)(6), the background groundwater sample data used in calculating the UPLs were evaluated for seasonal and spatial variability as well as temporal correlation in the data to assess the independence and usability of the background data to calculate UPLs. Statistical independence was checked by testing for:

- Spatial stationarity,
- Temporal stationarity,
- Lack of autocorrelation, and
- Lack of statistical data outliers.

The statistical software **R** (The R Foundation, 2023) and the EnvStats package (Envstats, 2023) were used to perform the statistical tests to check the validity of independent samples.

To identify the statistical significance across the wells and/or detected Appendix III or Appendix IV constituents, a Type I experiment wise error rate, α, of 0.05 was used and a single test error rate was defined for each statistical test. The single test error rate, was based on the number of constituents detected (d^*), and in some cases the number of constituents detected at least 50% of the time, for a given constituent list. For instance, the single test error rate associated with a statistical test for one of the seven detected Appendix III constituents (d^*=7) equals $1-(1-\alpha)^{1/d^*} = 1-(1-\alpha)^{1/7} = 0.0073$. Table C-3 provides a list of the single test error rates used when testing the statistical assumptions.

Spatial Stationarity

Spatial stationarity is defined as the lack of variability across upgradient well locations that are unaffected by the monitored CCR unit. The one-way analysis of variance (ANOVA) or Kruskal-Wallis test was performed to identify spatial variability. The ANOVA and Kruskal-Wallis tests are appropriate only when there is no evidence of heteroscedasticity, meaning variances are equal across wells. The Fligner or Levene test was performed to test for heteroscedasticity, using α=0.01 error rate, as recommended by the Unified Guidance (EPA, 2009). The ANOVA and Kruskal-Wallis tests used a single test error rate based on the number of tests performed for each constituent list. Results of the ANOVA and Kruskal-Wallis test are presented in Table C-4.

For Coleto Creek, spatial variability was identified in Appendix III and Appendix IV constituents among the upgradient wells. The background sample concentrations are generally within the natural range of concentrations in the downgradient and other upgradient wells. Furthermore, there is no obvious source of the spatial variability observed in the well samples other than natural chemical variability in the uppermost aquifer. As such, the background sample concentrations represent the natural range of Appendix III and Appendix IV constituent concentrations in the uppermost aquifer and are considered usable data for detecting a release from the CCR unit.

Temporal Stationarity and Lack of Autocorrleation

Temporal stationarity is the lack of temporal variability. Temporal variation refers to the concept that concentration levels vary over time, and can be present across a group of wells and/or constituents at an individual well or for a single constituent. The Mann-Kendall trend test was performed to identify linearly increasing or decreasing trends at each upgradient well. By definition temporal variability also includes autocorrelation. Autocorrelation is the statistical dependence between pairs of concentrations across a sequence of time. That means, pairs of consecutive concentrations exhibit stronger similarity in concentration levels than expected from pairs collected at random times (EPA, 2009). The rank von Neumann ratio test was performed to identify autocorrelation in the upgradient wells. This test was not designed to handle tied values such as non-detect concentrations, and so it was only performed for upgradient wells and constituents with at least 50% detected concentrations. Results of the Mann-Kendall test and rank von Neumann ratio test are presented in Table C-5.

For Coleto Creek, a few linear decreasing and increasing trends were identified, and several autocorrelations were identified out of the Appendix III constituent and upgradient well combinations;

no linear trends or autocorrelations were identified for the Appendix IV constituent and upgradient well combinations. The cases with significant trends and/or autocorrelation have concentrations within the range of detected baseline concentrations in the downgradient and other upgradient wells and are, therefore, considered usable data.

Handling Outliers

Outliers are "extreme, unusual-looking measurements" and the Unified Guidance recommends testing for outliers to attempt to determine whether a suspect outlier was drawn from the same sample population as the rest of the data.

Before establishing baseline values for the detection monitoring or assessment monitoring programs, two steps were taken to check for suspect outliers for each detected constituent across the upgradient wells: a box plot was created to identify suspect outliers as a basis to identify suspect outliers, and if the constituent had at least 50% detected concentrations then the Dixon's test was performed as a formal test to check if a suspect outlier is also a statistical outlier. Box plots and results for the Dixon's test were generated using the statistical software **R** (The R Foundation, 2023). Box plots are provided in Figures C-1 through C-16 and Table C-6 presents the suspect outliers based on the box plots and presents the results from the Dixon's test, based on a 95% level of confidence.

The only suspect outliers based on box plots are for calcium (two low concentrations of 6.89 and 7.76 mg/L and one high concentration of 143 mg/L), lead (the three detected concentrations of 0.00112, 0.00151, and 0.00288 mg/L) and for combined Radium-226 + Radium-228 (one high concentration of 4.812 pCi/L). The Dixon's test is appropriate for data sets of fewer than 25 samples, and so Dixon's test was used to evaluate outliers in the baseline data sets. Since there were less than 50% detects for lead, the Dixon's test was not performed. The Dixon's test assumes that a data set with the suspect outlier removed is normally distributed (or lognormally distributed if the data are transformed to the natural-log scale). For Coleto Creek, when the maximum calcium detection was removed, the remaining data could not be defined as normal or lognormal, so Dixon's test could not be performed. Furthermore, the Dixon's test can only test if one detected concentration (i.e., the minimum or the maximum) is a statistical outlier. For Coleto Creek, two low suspect outliers were identified for calcium and so the Dixon's test was performed only for the lowest calcium detection. The Dixon's test was also used to test if the highest value of the combined radium was a statistical outlier. For both these cases, the results of the Dixon's test indicated that these suspect outliers were also considered statistical outliers. Although

the low calcium value was identified as a statistical outlier, it is within the range of detected baseline concentrations in the downgradient wells and so it was not removed from the baseline data set. The high combined Radium-226 + Radium-228 value that was identified as a statistical outlier was kept in the baseline data set because when the estimated UPL includes this value, the UPL is less than the MCL of 5 pCi/L. Even though lead has suspect outliers, these lead concentrations are the only upgradient baseline detections for lead, are all below the MCL of 0.015 mg/L, and are within the range of detected baseline concentrations in the downgradient wells. So, neither the suspect outliers nor statistical outliers unfairly affected the estimated baseline values for background and were not censored.

C.3 Statistical Approach for Calculating UPLs

UPLs were calculated for each detected constituent across the upgradient wells to establish baseline values for background. UPLs were calculated to include a 1-of-2 retesting strategy to ensure comparisons are statistically powerful and to achieve the SWFPR. A 1-of-2 retesting strategy means that if one or more constituent concentrations in a compliance well are above their respective baseline concentration, a resample can be collected to validate or invalidate the baseline concentration exceedance.

Background data distributions were defined in accordance with EPA guidance (EPA, 2000; EPA, 2002; EPA, 2009; EPA, 2017; SWDIV, 1998). UPLs were calculated based on the site-wide false positive rate (SWFPR) and defined background data distribution. Power rates were defined for each calculated UPL. The open source, statistical software **R** (The R Foundation, 2023) was used to perform all statistical distribution tests and to calculate UPLs.

Achieving the SWFPR

UPLs were computed using a significance level that ensures a cumulative SWFPR or Type I experiment wise error rate for yearly monitoring that is no more than 10%. That means, a single test error rate for the UPLs must be considerably lower than 0.10. The single test error rate depends on the number of detected constituents and number of compliance wells evaluated in the CCR monitoring program, defined as: $1-(1-\alpha)^{1/cw}$, where

- α=0.10,
- c=7 or 9, the number detected constituents for the monitoring program for Appendix III and Appendix IV constituents, respectively; and

- w=6, the number of downgradient compliance wells at Coleto Creek.

The single test error rate for the UPLs is 0.0025 and 0.0019 for the detected Appendix III constituents and Appendix IV constituents, respectively. The Unified Guidance recommends defining the single test error rate for nonparametric UPLs as: $1-(1-\alpha)^{1/c}$, and so the single test error rate for nonparametric UPLs is 0.015 and 0.012 for the detected Appendix III constituents and Appendix IV constituents, respectively. Since field pH has two bounds, a lower and upper prediction limit, the SWPFR for field pH is one-half of the appropriate SWFPR value shown above.

Defining a Distribution and Type of UPL

The type of UPL calculated is based on a data set's defined distribution. Figure C-17 outlines the steps that were taken to define whether a data set follows a normal, gamma, lognormal, or nonparametric distribution. Distributional test results and defined distributions are presented in Table C-7.

The type of UPL computed (e.g., parametric or nonparametric) was based on the detection frequency and the defined data distribution. For a constituent with no detections in the baseline data, the UPL was set to the reporting limit (EPA, 2009). For a constituent with at least 50% detections, the UPL was adjusted for non-detected concentration(s), as described previously in the Data Preparation section, Section C.1, and the appropriate UPL calculation was based on results from the distributional tests. If no parametric distribution (normal, gamma, or lognormal) was appropriate, then a nonparametric UPL was estimated. The confidence level used for each UPL was based on the appropriate single test error rate.

Defining Power Rate associated with each UPL

The power of each UPL was evaluated and a power rate was defined as good, acceptable, or low. A power rate was defined as 'good' when the power at both 3 standard deviations and 4 standard deviations were above 85%; a power rate was defined as 'acceptable' when power at either 3 standard deviations or 4 standard deviations was between 59% and 85%; and a power rate was defined as 'low' occurs when power at both 3 standard deviations and 4 standard deviations were below 85%.

C.4 Detection and Assessment Monitoring Data Evaluations

Detection and assessment monitoring constituent concentrations are compared to the appropriate baseline value for background or GWPS to determine whether a significant difference exists between the initial and current site conditions. The appropriate baseline value for detection monitoring is the

Appendix III constituent's UPL and the appropriate baseline value for assessment monitoring is the Appendix IV constituent's GWPS (Table C-8). The GWPS for each Appendix IV constituent is established as follows:

- For constituents with an established MCL, the GWPS is the highest of the MCL, UPL, or reporting limit for that constituent; or
- For constituents with no established MCL, the GWPS is the highest of the UPL, reporting limit, or the specified regional screening level (RSL) for that constituent (note: future revisions to the Rule may allow additional flexibility in establishing GWPS for states with EPA-approved CCR permit programs for Appendix IV constituents that do not have a MCL).

For detection monitoring, a well is defined as in-compliance when all the Appendix III constituent concentrations are less than the appropriate baseline value. If any concentration exceeds the appropriate baseline value, then a resample may be collected, analyzed, and compared to the appropriate baseline value—if the resample exceeds the appropriate baseline value, then a statistically significant increase over baseline is indicated.

For assessment monitoring, a 95% confidence interval of the mean is estimated for each detected Appendix IV constituent in a downgradient well using the current and previous sampling event concentrations. The confidence interval contains both an LCL and an upper confidence limit (UCL). The Unified Guidance states that "for testing under compliance/assessment monitoring, a [LCL] around the true parameter is utilized. If the LCL exceeds the standard [GWPS], there is statistically significant evidence in favor that the compliance standard has been violated." A constituent is in-compliance when the LCL for the constituent is less than the appropriate GWPS. (EPA, 2009).

The 95% confidence interval (i.e., the LCL and UCL) is based on the constituent concentrations from the current year's sampling events and historical sampling events at a given well. Confidence intervals are calculated based on the defined data distribution. The data distribution is defined in accordance with EPA guidance (EPA, 2000; EPA, 2002; EPA, 2009; EPA, 2017; SWDIV, 1998). The type of confidence interval computed (e.g., parametric or nonparametric) is based on the detection frequency and the defined data distribution for each data set, as described in Section C.3. For a constituent with no detected concentration measurements, the LCL (and UCL) is set to the reporting limit (EPA, 2009). For a constituent with at least 50% detections, the LCL (and UCL) calculation adjusts for non-detected concentration(s) as described in Section C.1, and the appropriate LCL (and UCL) calculation is used based on results from the distributional tests. If no parametric distribution (normal, lognormal, or gamma) can

be defined for a data set or there are fewer than 50% detections, then a nonparametric, approximate 95% confidence interval of the median is estimated for the LCL and UCL.

C.5 REFERENCES

ASTM, 2017. Standard Guide for Developing Appropriate Statistical Approaches for Groundwater Detection Monitoring Programs at Waste Disposal Facilities - D6312-17.

EPA, 2000. Guidance for Data Quality Assessment Practical Methods for Data Analysis, EPA QA/F-9 QA00 UPDATE. . EPA/600/R-96/084. July.

EPA, 2002. Guidance for Comparing Background and Chemical Concentrations in Soil for CERCLA Sites. EPA 540-R-01-003. September.

EPA, 2009. Unified Guidance Document: Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, EPA 530-R-09-007, March.

EPA, 2017. ProUCL Version 5.1 User Guide, https://www.epa.gov/sites/production/files/201605/documents/proucl_5.1_user-guide.pdf . February 1.

Golder, 2022. Coal Combustion Residual Rule, Statistical Analysis Plan, Revision No. 1, Coleto Creek Primary Ash Pond, Fannin, Texas.

Package 'EnvStats', 2023. https://cran.r-project.org/web/packages/EnvStats/EnvStats.pdf.

SWDIV and EFA West of Naval Facilities Engineering Command, 1998. Procedural Guidance for Statistically Analyzing Environmental Background Data. September.

The R Foundation, 2023. "**R**" Software Suite. https://www.r-project.org/. July.

Tables

Table C-1. CCR Groundwater Baseline Detection Monitoring Data Summary - Coleto Creek

Sample Location	Date Sampled	B	Ca	Cl	Fl	field pH	SO_4	TDS
Upgradient Wells								
BV-5	3/29/17	1.15	90.5	118	0.54	7.01	147	860
	5/11/17	1.03	81.6	106	0.57	6.89	148	862
	5/16/17	1.17	99	107	0.55	6.9	145	832
	6/7/17	1.11	88.8	109	0.56	6.64	147	810
	6/20/17	1.02	90.7	106	0.58	6.54	145	716
	6/27/17	1.14	100	114	0.55	6.76	144	743
	7/12/17	1.07	96.8	112	0.56	6.88	140	430
	7/18/17	1.17	143	117	0.56	6.68	142	817
BV-21	3/28/17	0.651	6.89	36	0.61	7.09	69	490
	5/9/17	0.687	65.2	38	0.61	7.04	55	410
	5/17/17	0.709	74.3	39	0.58	7.05	53	454
	6/6/17	0.657	69	40	0.59	7.11	49	452
	6/20/17	0.642	77	40	0.61	6.7	45	356
	6/27/17	0.727	84.9	40	0.6	6.97	46	420
	7/10/17	0.674	90.6	39	0.58	7.22	45	427
	7/18/17	0.618	84.4	39	0.6	6.91	44	380
MW-8	3/28/17	1.2	7.76	79	0.49	7.06	76	626
	5/9/17	1.21	77.5	77	0.44	7.15	79	564
	5/15/17	1.16	81.2	76	0.44	7.01	79	558
	6/6/17	1.26	78.1	72	0.45	6.92	83.5	570
	6/20/17	1.24	86.5	67	0.43	6.7	89	476
	6/27/17	1.23	89.6	66	0.44	6.85	97	533
	7/10/17	1.24	92.6	63	0.44	7.13	97	533
	7/18/17	1.25	92.9	61	0.46	6.91	100	533
Downgradient Wells								
MW-4	3/28/17	0.287	9.14	102	0.61	9.81	157	794
	5/9/17	0.395	88.7	101	0.61	7.27	156	668
	5/15/17	0.251	92.1	101	0.6	6.93	157	702
	6/6/17	0.243	90.7	101	0.63	7.13	157	728
	6/20/17	0.254	99.3	101	0.62	6.71	157	626
	6/27/17	0.254	102	101	0.63	6.87	157	690
	7/10/17	0.271	111	101	0.62	7.16	158	670
	7/18/17	0.292	108	101	0.63	6.82	157	717
MW-5	3/30/17	0.11	110	140	0.51	6.85	184	830
	5/10/17	0.115	114	139	0.54	6.86	183	900
	5/16/17	0.215	121	139	0.5	6.81	183	848
	6/8/17	0.122	118	139	0.55	6.8	182	862
	6/21/17	0.122	124	138	0.53	6.6	182	813
	6/26/17	0.121	129	139	0.54	6.79	184	900
	7/11/17	0.111	120	138	0.52	6.91	184	797
	7/19/17	0.001	0.005	137	0.53	6.84	181	857
MW-6	3/29/17	1.67	73.9	69	0.38	7.34	99	510
	5/11/17	1.94	70.6	70	0.37	7.1	110	490
	5/16/17	1.84	76.3	70	0.36	7.23	107	506
	6/7/17	1.8	73.8	70	0.37	6.97	103	492
	6/22/17	1.97	79.9	69	0.37	7.11	100	510
	6/28/17	1.74	81.8	69	0.37	7.16	99	570
	7/12/17	1.76	81.6	69	0.35	7.24	98	557
	7/20/17	0.005	2e-04	69	0.39	6.9	97	530
MW-9	3/30/17	3.38	54.5	71	1.13	7.35	62	406
	5/10/17	3.16	52.7	66	1.29	7.48	59	410
	5/17/17	3.18	53.3	67	1.26	7.34	58	440
	6/7/17	3.12	52	67	1.26	7.03	57	380
	6/21/17	3.44	60.7	66	1.39	7.09	60	393
	6/26/17	3.31	60.6	67	1.4	7.23	61	407
	7/11/17	3.35	52.1	64	1.3	7.51	60	927
	7/19/17	3.4	50.2	63	1.4	7.29	62	407
MW-10	3/30/17	3.74	92.1	151	0.54	6.99	130	804
	5/10/17	7.32	56.1	82	0.83	7.23	96	582
	5/16/17	7.45	62.7	81	0.81	7.28	95	612
	6/8/17	7.54	58.1	77	0.84	7.23	92	604
	6/21/17	9.22	60.7	77	0.84	6.97	92	550
	6/26/17	8.21	63.4	78	0.84	7.14	92	530
	7/11/17	7.99	49.5	76	0.84	7.4	88	617
	7/19/17	8.74	56.6	74	0.86	7.25	86	533
MW-11	5/10/17	1.35	64.1	55	0.82	7.27	61	394
	5/16/17	1.39	62.3	52	0.85	7.29	58	362
	5/18/17	1.27	61.6	47.8	0.94	NA	52.4	390
	6/7/17	1.23	59.8	48	0.93	7.25	50	372
	6/21/17	1.19	73.1	43.7	1.04	7.15	44	373
	6/26/17	1.15	82	44	1	7.3	43	407
	7/11/17	1.23	44.7	44	1	7.55	42	603
	7/19/17	1.17	48.6	43	1.01	7.21	42	360

Notes:
1. All concentrations in mg/L. pH in standard units.

Table C-2. CCR Groundwater Baseline Assessment Monitoring Data Summary - Coleto Creek

Sample Location	Date Sampled	Sb	As	Ba	Be	Cd	Cr	Co	Fl	Pb	Li	Hg	Mo	Se	Th	Ra 226/228 Combined
Upgradient Wells																
BV-5	3/29/17	< 0.0025	0.00856	0.0451	< 0.001	< 0.001	< 0.005	0.0497	0.54	< 0.001	0.0206	< 0.0002	0.00925	< 0.005	< 0.0015	1.503
	5/11/17	< 0.0025	0.00786	0.0368	< 0.001	< 0.001	< 0.005	0.0462	0.57	< 0.001	0.018	< 0.0002	0.0101	< 0.005	< 0.0015	1.555
	5/16/17	< 0.0025	0.00885	0.0452	< 0.001	< 0.001	< 0.005	0.0495	0.55	0.00151	0.0171	< 0.0002	0.0102	< 0.005	< 0.0015	0.755
	6/7/17	< 0.0025	0.00829	0.0376	< 0.001	< 0.001	< 0.005	0.0483	0.56	< 0.001	0.0207	< 0.0002	0.01	< 0.005	< 0.0015	1.457
	6/20/17	< 0.0025	0.00841	0.0401	< 0.001	< 0.001	< 0.005	0.0499	0.58	< 0.001	0.0208	< 0.0002	0.0114	< 0.005	< 0.0015	0.492
	6/27/17	< 0.0025	0.0083	0.0412	< 0.001	< 0.001	< 0.005	0.046	0.55	< 0.001	0.0198	< 0.0002	0.00942	< 0.005	< 0.0015	2.247
	7/12/17	< 0.0025	0.00849	0.0416	< 0.001	< 0.001	< 0.005	0.0484	0.56	< 0.001	0.0188	< 0.0002	0.0096	< 0.005	< 0.0015	2.139
	7/18/17	< 0.0025	0.00951	0.0578	< 0.001	< 0.001	0.00739	0.0453	0.56	0.00288	0.022	< 0.0002	0.0083	< 0.005	< 0.0015	1.26
BV-21	3/28/17	< 0.0025	0.0954	0.0963	< 0.001	< 0.001	< 0.005	0.0083	0.61	< 0.001	< 0.01	< 0.0002	< 0.005	< 0.005	< 0.0015	1.39
	5/9/17	< 0.0025	0.108	0.0972	< 0.001	< 0.001	< 0.005	0.00852	0.61	< 0.001	< 0.01	< 0.0002	< 0.005	< 0.005	< 0.0015	0.746
	5/17/17	< 0.0025	0.117	0.0944	< 0.001	< 0.001	< 0.005	0.00878	0.58	< 0.001	< 0.01	< 0.0002	< 0.005	< 0.005	< 0.0015	0.919
	6/6/17	< 0.0025	0.118	0.0954	< 0.001	< 0.001	< 0.005	0.00806	0.59	< 0.001	< 0.01	< 0.0002	< 0.005	< 0.005	< 0.0015	0.671
	6/20/17	< 0.0025	0.121	0.101	< 0.001	< 0.001	< 0.005	0.00744	0.61	< 0.001	< 0.01	< 0.0002	< 0.005	< 0.005	< 0.0015	1.672
	6/27/17	< 0.0025	0.128	0.104	< 0.001	< 0.001	< 0.005	0.00841	0.6	0.00112	< 0.01	< 0.0002	< 0.005	< 0.005	< 0.0015	0.52
	7/10/17	< 0.0025	0.123	0.11	< 0.001	< 0.001	< 0.005	0.0086	0.58	< 0.001	< 0.01	< 0.0002	< 0.005	< 0.005	< 0.0015	0.805
	7/18/17	< 0.0025	0.115	0.101	< 0.001	< 0.001	< 0.005	0.00784	0.6	< 0.001	< 0.01	< 0.0002	< 0.005	< 0.005	< 0.0015	4.812
MW-8	3/28/17	< 0.0025	0.00839	0.0623	< 0.001	< 0.001	< 0.005	0.0236	0.49	< 0.001	0.0111	< 0.0002	0.0154	< 0.005	< 0.0015	0.452
	5/9/17	< 0.0025	0.00848	0.064	< 0.001	< 0.001	< 0.005	0.0272	0.44	< 0.001	0.0111	< 0.0002	0.0157	< 0.005	< 0.0015	0.474
	5/15/17	< 0.0025	0.00926	0.064	< 0.001	< 0.001	< 0.005	0.0311	0.44	< 0.001	0.0112	< 0.0002	0.016	< 0.005	< 0.0015	0.614
	6/6/17	< 0.0025	0.00912	0.0616	< 0.001	< 0.001	0.00744	0.0308	0.45	< 0.001	0.0107	< 0.0002	0.0157	< 0.005	< 0.0015	0.132
	6/20/17	< 0.0025	0.00885	0.0669	< 0.001	< 0.001	< 0.005	0.0297	0.43	< 0.001	0.0121	< 0.0002	0.0171	< 0.005	< 0.0015	0.538
	6/27/17	< 0.0025	0.00939	0.0633	< 0.001	< 0.001	< 0.005	0.0314	0.44	< 0.001	0.0115	< 0.0002	0.0163	< 0.005	< 0.0015	0.939
	7/10/17	< 0.0025	0.00902	0.0631	< 0.001	< 0.001	< 0.005	0.031	0.44	< 0.001	0.0112	< 0.0002	0.0165	< 0.005	< 0.0015	0.804
	7/18/17	< 0.0025	0.00937	0.0635	< 0.001	< 0.001	< 0.005	0.0352	0.46	< 0.001	0.0118	< 0.0002	0.0185	< 0.005	< 0.0015	2.113
Downgradient Wells																
MW-4	3/28/17	< 0.0025	0.00738	0.0575	< 0.001	< 0.001	< 0.005	0.0067	0.61	< 0.001	0.0192	< 0.0002	< 0.005	< 0.005	< 0.0015	0.46
	5/9/17	< 0.0025	0.00733	0.0576	< 0.001	< 0.001	< 0.005	0.00653	0.61	< 0.001	0.0182	< 0.0002	< 0.005	< 0.005	< 0.0015	0.694
	5/15/17	< 0.0025	0.00794	0.0556	< 0.001	< 0.001	< 0.005	0.00653	0.6	< 0.001	0.0166	< 0.0002	< 0.005	< 0.005	< 0.0015	1.451
	6/6/17	< 0.0025	0.0077	0.0556	< 0.001	< 0.001	< 0.005	0.00688	0.63	< 0.001	0.0179	< 0.0002	< 0.005	< 0.005	< 0.0015	0.174
	6/20/17	< 0.0025	0.0081	0.0596	< 0.001	< 0.001	0.00877	0.00843	0.62	< 0.001	0.0195	< 0.0002	< 0.005	< 0.005	< 0.0015	0.543
	6/27/17	< 0.0025	0.00786	0.0554	< 0.001	< 0.001	< 0.005	0.00704	0.63	< 0.001	0.0185	< 0.0002	< 0.005	< 0.005	< 0.0015	0.639
	7/10/17	< 0.0025	0.00846	0.0582	< 0.001	< 0.001	< 0.005	0.0085	0.62	< 0.001	0.0187	< 0.0002	< 0.005	< 0.005	< 0.0015	1.069
	7/18/17	< 0.0025	0.00815	0.0549	< 0.001	< 0.001	< 0.005	0.00771	0.63	< 0.001	0.0183	< 0.0002	< 0.005	< 0.005	< 0.0015	0.191
MW-5	3/30/17	< 0.0025	0.00953	0.0748	< 0.001	< 0.001	< 0.005	< 0.005	0.51	< 0.001	0.0192	< 0.0002	< 0.005	< 0.005	< 0.0015	1.443
	5/10/17	< 0.0025	0.00955	0.0706	< 0.001	< 0.001	< 0.005	< 0.005	0.54	< 0.001	0.0179	< 0.0002	< 0.005	< 0.005	< 0.0015	0.615
	5/16/17	< 0.0025	0.00967	0.0708	< 0.001	< 0.001	< 0.005	< 0.005	0.5	< 0.001	0.0181	< 0.0002	< 0.005	< 0.005	< 0.0015	0.641
	6/8/17	< 0.0025	0.00908	0.0701	< 0.001	< 0.001	< 0.005	< 0.005	0.55	< 0.001	0.02	< 0.0002	< 0.005	< 0.005	< 0.0015	0.179
	6/21/17	< 0.0025	0.00917	0.0767	< 0.001	< 0.001	< 0.005	< 0.005	0.53	< 0.001	0.0197	< 0.0002	< 0.005	< 0.005	< 0.0015	0.106
	6/26/17	< 0.0025	0.00955	0.0735	< 0.001	< 0.001	< 0.005	< 0.005	0.54	< 0.001	0.0204	< 0.0002	< 0.005	< 0.005	< 0.0015	1.112
	7/11/17	< 0.0025	0.00945	0.0712	< 0.001	< 0.001	< 0.005	< 0.005	0.52	< 0.001	0.0183	< 0.0002	< 0.005	< 0.005	< 0.0015	0.512
	7/19/17	< 0.0025	0.00941	0.0735	< 0.001	< 0.001	< 0.005	< 0.005	0.53	< 0.001	0.0186	< 0.0002	< 0.005	< 0.005	< 0.0015	0.191
MW-6	3/29/17	< 0.0025	0.00827	0.09	< 0.001	< 0.001	< 0.005	< 0.005	0.38	< 0.001	< 0.01	< 0.0002	0.00749	< 0.005	< 0.0015	1.009
	5/11/17	< 0.0025	0.00738	0.0758	< 0.001	< 0.001	< 0.005	< 0.005	0.37	< 0.001	0.0101	< 0.0002	0.0176	< 0.005	< 0.0015	0.825
	5/16/17	< 0.0025	0.00803	0.0784	< 0.001	< 0.001	< 0.005	< 0.005	0.36	< 0.001	< 0.01	< 0.0002	0.0131	< 0.005	< 0.0015	0.774
	6/7/17	< 0.0025	0.00772	0.0798	< 0.001	< 0.001	< 0.005	< 0.005	0.37	< 0.001	< 0.01	< 0.0002	0.00949	< 0.005	< 0.0015	0.664
	6/22/17	< 0.0025	0.00764	0.083	< 0.001	< 0.001	< 0.005	< 0.005	0.37	< 0.001	0.0109	< 0.0002	0.0084	< 0.005	< 0.0015	0.215
	6/28/17	< 0.0025	0.00779	0.0842	< 0.001	< 0.001	< 0.005	< 0.005	0.37	< 0.001	< 0.01	< 0.0002	0.00806	< 0.005	< 0.0015	1.73
	7/12/17	< 0.0025	0.0077	0.0819	< 0.001	< 0.001	< 0.005	< 0.005	0.35	< 0.001	< 0.01	< 0.0002	0.0076	< 0.005	< 0.0015	1.012
	7/20/17	< 0.0025	0.001	0.001	< 0.001	< 0.001	< 0.005	< 0.005	0.39	< 0.001	< 0.01	< 0.0002	0.001	< 0.005	< 0.0015	0.366
MW-9	3/30/17	< 0.0025	0.00909	0.121	< 0.001	< 0.001	< 0.005	< 0.005	1.13	0.00217	< 0.01	< 0.0002	0.0747	< 0.005	< 0.0015	1.353
	5/10/17	< 0.0025	0.00996	0.105	< 0.001	< 0.001	< 0.005	< 0.005	1.29	0.00433	< 0.01	< 0.0002	0.09	< 0.005	< 0.0015	0.48
	5/17/17	< 0.0025	0.00958	0.101	< 0.001	< 0.001	< 0.005	< 0.005	1.26	0.00377	< 0.01	< 0.0002	0.0899	< 0.005	< 0.0015	0.36
	6/7/17	< 0.0025	0.0093	0.1	< 0.001	< 0.001	< 0.005	< 0.005	1.26	< 0.001	< 0.01	< 0.0002	0.0926	< 0.005	< 0.0015	0.476
	6/21/17	< 0.0025	0.00937	0.119	< 0.001	< 0.001	< 0.005	< 0.005	1.39	0.00136	< 0.01	< 0.0002	0.102	< 0.005	< 0.0015	1.579
	6/26/17	< 0.0025	0.0107	0.114	< 0.001	< 0.001	0.0102	< 0.005	1.4	0.00217	< 0.01	< 0.0002	0.106	< 0.005	< 0.0015	1.023
	7/11/17	< 0.0025	0.0105	0.103	< 0.001	< 0.001	0.00566	< 0.005	1.3	0.00124	< 0.01	< 0.0002	0.105	< 0.005	< 0.0015	0.863
	7/19/17	< 0.0025	0.0103	0.101	< 0.001	< 0.001	< 0.005	< 0.005	1.4	< 0.001	< 0.01	< 0.0002	0.113	< 0.005	< 0.0015	0.584
MW-10	3/30/17	< 0.0025	0.011	0.0844	< 0.001	< 0.001	< 0.005	< 0.005	0.54	< 0.001	0.0179	< 0.0002	0.0342	< 0.005	< 0.0015	1.439
	5/10/17	< 0.0025	0.0146	0.0554	< 0.001	< 0.001	0.00533	< 0.005	0.83	< 0.001	0.0122	< 0.0002	0.102	< 0.005	< 0.0015	0.888
	5/16/17	< 0.0025	0.015	0.0598	< 0.001	< 0.001	< 0.005	< 0.005	0.81	< 0.001	0.0123	< 0.0002	0.0987	< 0.005	< 0.0015	0.183
	6/8/17	< 0.0025	0.0144	0.0544	< 0.001	< 0.001	< 0.005	< 0.005	0.84	< 0.001	0.0115	< 0.0002	0.106	< 0.005	< 0.0015	0.067
	6/21/17	< 0.0025	0.0149	0.054	< 0.001	< 0.001	< 0.005	< 0.005	0.84	< 0.001	0.0133	< 0.0002	0.113	< 0.005	< 0.0015	0.709
	6/26/17	< 0.0025	0.016	0.0587	< 0.001	< 0.001	0.0177	< 0.005	0.84	< 0.001	0.0137	< 0.0002	0.116	< 0.005	< 0.0015	0.718
	7/11/17	< 0.0025	0.0149	0.0508	< 0.001	< 0.001	< 0.005	< 0.005	0.84	< 0.001	0.0119	< 0.0002	0.114	< 0.005	< 0.0015	1.713
	7/19/17	< 0.0025	0.0146	0.0633	< 0.001	< 0.001	0.00963	< 0.005	0.86	< 0.001	0.0127	< 0.0002	0.121	< 0.005	< 0.0015	2.132
MW-11	5/10/17	< 0.0025	0.0156	0.0899	< 0.001	< 0.001	< 0.005	< 0.005	0.82	0.00239	0.0125	< 0.0002	0.0082	< 0.005	< 0.0015	0.456
	5/16/17	< 0.0025	0.018	0.0869	< 0.001	< 0.001	0.00731	< 0.005	0.85	0.0113	0.0144	< 0.0002	0.00841	< 0.005	< 0.0015	1.418
	5/18/17	< 0.0025	0.0188	0.0779	< 0.001	< 0.001	< 0.005	< 0.005	0.94	0.00204	0.0122	< 0.0002	0.00781	< 0.005	< 0.0015	0.639
	6/7/17	< 0.0025	0.0175	0.0835	< 0.001	< 0.001	< 0.005	< 0.005	0.93	0.00171	0.0137	< 0.0002	0.00744	< 0.005	< 0.0015	0.502
	6/21/17	< 0.0025	0.0203	0.0822	< 0.001	< 0.001	< 0.005	< 0.005	1.04	0.00322	0.0136	< 0.0002	0.00659	< 0.005	< 0.0015	1.084
	6/26/17	< 0.0025	0.0237	0.0954	< 0.001	< 0.001	0.0131	< 0.005	1	0.00593	0.0176	< 0.0002	0.00796	< 0.005	< 0.0015	3.067
	7/11/17	< 0.0025	0.0212	0.0725	< 0.001	< 0.001	< 0.005	< 0.005	1	< 0.001	0.012	< 0.0002	0.00765	< 0.005	< 0.0015	0.753
	7/19/17	< 0.0025	0.0224	0.0709	< 0.001	< 0.001	0.00762	< 0.005	1.01	0.0018	0.0137	< 0.0002	0.00783	< 0.005	< 0.0015	1.551

Notes:
1. All concentrations in mg/L. Ra 226/228 Combined in pCi/L.

Table C-3. Single-Test Error Rates to Achieve Type 1 Experimentwise Error Rate of α=0.05
Coleto Creek - Upgradient Wells (BV-21, BV-5, and MW-8)

Constituent List		Single-Test Error Rate (# of Detected Constituents) for Temporal Tests		
		BV-21	**BV-5**	**MW-8**
Appendix III	Constituents Detected	0.0073 (7)	0.0073 (7)	0.0073 (7)
	Constituents Detected≥50%	0.0073 (7)	0.0073 (7)	0.0073 (7)
Appendix IV	Constituents Detected	0.0085 (6)	0.0057 (9)	0.0064 (8)
	Constituents Detected≥50%	0.010 (5)	0.0073 (7)	0.0073 (7)

Table C-4. Summary of Spatial Analysis - Results from ANOVA or Kruskal-Wallis Test Coleto Creek - Upgradient Wells (BV-21, BV-5, and MW-8)

Constituent List	Constituent	# Detects/ # Samples Upgradient Wells	# Detects/ # Samples at BV-21	# Detects/ # Samples at BV-5	# Detects/ # Samples at MW-8	Defined Distribution for Residuals[1]	Levene's or Fligner's Test[2]		ANOVA or Kruskal-Wallis[3]	
							p-value	Heteroscedasticity present?	p-value	Statistically Significant[4]?
Appendix III	Boron	24/24	8/8	8/8	8/8	Normal	0.063	No	1.1E-16	Yes
	Calcium	24/24	8/8	8/8	8/8	Not Normal or Lognormal	0.67	No	6.5E-03	Yes
	Chloride	24/24	8/8	8/8	8/8	Normal	2.5E-04	Yes	--	--
	Fluoride	24/24	8/8	8/8	8/8	Normal	0.63	No	1.2E-14	Yes
	field pH	24/24	8/8	8/8	8/8	Normal	0.90	No	0.022	No
	Sulfate	24/24	8/8	8/8	8/8	Normal	0.012	No	1.8E-16	Yes
	Total Dissolved Solids	24/24	8/8	8/8	8/8	Not Normal or Lognormal	0.39	No	3.1E-04	Yes
Appendix IV	Antimony	0/24	0/8	0/8	0/8	--	--	--	--	--
	Arsenic	24/24	8/8	8/8	8/8	Lognormal	0.35	No	7.8E-28	Yes
	Barium	24/24	8/8	8/8	8/8	Not Normal or Lognormal	0.027	No	3.5E-05	Yes
	Beryllium	0/24	0/8	0/8	0/8	--	--	--	--	--
	Cadmium	0/24	0/8	0/8	0/8	--	--	--	--	--
	Chromium	2/24	0/8	1/8	1/8	Not Normal or Lognormal	0.58	No	0.59	No
	Cobalt	24/24	8/8	8/8	8/8	Normal	0.026	No	1.9E-19	Yes
	Fluoride	24/24	8/8	8/8	8/8	Normal	0.63	No	1.2E-14	Yes
	Lead	3/24	1/8	2/8	0/8	Not Normal or Lognormal	0.27	No	0.30	No
	Lithium	16/24	0/8	8/8	8/8	Nonparametric (all NDs for BV-21)	7.9E-04	Yes	--	--
	Mercury	0/24	0/8	0/8	0/8	--	--	--	--	--
	Molybdenum	16/24	0/8	8/8	8/8	Nonparametric (all NDs for BV-21)	2.3E-03	Yes	--	--
	Selenium	0/24	0/8	0/8	0/8	--	--	--	--	--
	Thallium	0/24	0/8	0/8	0/8	--	--	--	--	--
	Radium-226 + Radium-228	24/24	8/8	8/8	8/8	Lognormal	0.75	No	0.074	No

1-a=0.01, Distribution Test

2-Heteroscedasticity based on Levene when data Normal or Lognormal, otherwise Fligner Test; a=0.01

3-ANOVA used when residuals are Normal or Lognormal, otherwise Kruskal-Wallis Test

4-a=0.0085 for Appendix III and Appendix IV

Table C-5. Summary of Mann-Kendall Trend Test and rank von Neumann Autocorrelation Test Coleto Creek - Upgradient Wells (BV-21, BV-5, and MW-8)

Upgradient Well	Constituent List	Analyte	# Detects/ # Samples	% Detects	Mann-Kendall Trend Test		rank von Neumann Autocorrelation Test	
					p-value	Statistically Significant?	p-value	Statistically Significant?
BV-21	Appendix III	Boron	8/8	100	0.71	No	0.93	No
		Calcium	8/8	100	0.0094	No	0.0056	Yes
		Chloride	8/8	100	0.24	No	0.0078	No
		Fluoride	8/8	100	0.44	No	0.64	No
		field pH	8/8	100	0.71	No	0.42	No
		Sulfate	8/8	100	0.0028	Yes (decreasing)	0.0019	Yes
		Total Dissolved Solids	8/8	100	0.17	No	0.98	No
	Appendix IV	Antimony	0/8	0	--	--	--	--
		Arsenic	8/8	100	0.063	No	0.019	No
		Barium	8/8	100	0.081	No	0.040	No
		Beryllium	0/8	0	--	--	--	--
		Cadmium	0/8	0	--	--	--	--
		Chromium	0/8	0	--	--	--	--
		Cobalt	8/8	100	0.71	No	0.90	No
		Fluoride	8/8	100	0.44	No	0.64	No
		Lead	1/8	13	0.66	No	--	--
		Lithium	0/8	0	--	--	--	--
		Mercury	0/8	0	--	--	--	--
		Molybdenum	0/8	0	--	--	--	--
		Selenium	0/8	0	--	--	--	--
		Thallium	0/8	0	--	--	--	--
		Radium-226 + Radium-228	8/8	100	0.90	No	0.44	No
BV-5	Appendix III	Boron	8/8	100	1	No	0.47	No
		Calcium	8/8	100	0.063	No	0.61	No
		Chloride	8/8	100	0.45	No	0.76	No
		Fluoride	8/8	100	0.52	No	0.44	No
		field pH	8/8	100	0.17	No	0.14	No
		Sulfate	8/8	100	0.017	No	0.026	No
		Total Dissolved Solids	8/8	100	0.063	No	0.045	No
	Appendix IV	Antimony	0/8	0	--	--	--	--
		Arsenic	8/8	100	0.39	No	0.56	No
		Barium	8/8	100	0.27	No	0.69	No
		Beryllium	0/8	0	--	--	--	--
		Cadmium	0/8	0	--	--	--	--
		Chromium	1/8	13	0.19	No	--	--
		Cobalt	8/8	100	0.27	No	0.49	No
		Fluoride	8/8	100	0.52	No	0.44	No
		Lead	2/8	25	0.51	No	--	--
		Lithium	8/8	100	0.39	No	0.61	No
		Mercury	0/8	0	--	--	--	--
		Molybdenum	8/8	100	0.54	No	0.44	No
		Selenium	0/8	0	--	--	--	--
		Thallium	0/8	0	--	--	--	--
		Radium-226 + Radium-228	8/8	100	1	No	0.76	No
MW-8	Appendix III	Boron	8/8	100	0.13	No	0.51	No
		Calcium	8/8	100	0.0020	Yes (increasing)	8.9E-04	Yes
		Chloride	8/8	100	0.00084	Yes (decreasing)	9.9E-05	Yes
		Fluoride	8/8	100	0.89	No	0.56	No
		field pH	8/8	100	0.27	No	0.44	No
		Sulfate	8/8	100	0.0017	Yes (increasing)	8.9E-04	Yes
		Total Dissolved Solids	8/8	100	0.075	No	0.17	No
	Appendix IV	Antimony	0/8	0	--	--	--	--
		Arsenic	8/8	100	0.11	No	0.64	No
		Barium	8/8	100	1	No	0.23	No
		Beryllium	0/8	0	--	--	--	--
		Cadmium	0/8	0	--	--	--	--
		Chromium	1/8	13	1	No	--	--
		Cobalt	8/8	100	0.035	No	0.21	No
		Fluoride	8/8	100	0.89	No	0.56	No
		Lead	0/8	0	--	--	--	--
		Lithium	8/8	100	0.17	No	0.76	No
		Mercury	0/8	0	--	--	--	--
		Molybdenum	8/8	100	0.013	No	0.062	No
		Selenium	0/8	0	--	--	--	--
		Thallium	0/8	0	--	--	--	--
		Radium-226 + Radium-228	8/8	100	0.035	No	0.12	No

Statistical Significance when p-value less than single test error rates (see Table C-3).

Table C-6. Summary of Observed Suspect Outliers, Dixon's Test and Rosner's Test-Normality Coleto Creek - Combined Upgradient Wells (BV-21, BV-5, and MW-8)

Constituent List	Constituent	Suspect Outlier for Low or High Concentration?	Suspect Outlier Concentration (Date Sampled)	p-values for Distributional Tests without Outlier - Normality			Is Distribution without Outlier(s) Normal?	p-values for Distributional Tests without Outlier - Lognormality			Is Distribution without Outlier(s) Lognormal?	Conclusion of Dixon Test
				Kolmogorov-Smirnov Test	Shapiro-Wilks Test	Probability Plot Correlation		Kolmogorov-Smirnov Test	Shapiro-Wilks Test	Probability Plot Correlation		
Appendix III	Calcium	Low	6.89 mg/L (3/28/2017 at BV-21) 7.76 mg/L (3/28/2017 at MW-8)	0.036	7.7E-04	6.1E-04	No	0.21	0.033	0.014	Yes	6.89 mg/L Statistical Low Outlier (p-value=0.018) based on Lognormality
		High	143 mg/L (7/18/2017 at BV-5)	7.8E-04	2.0E-05	5.2E-05	No	2.9E-09	1.4E-07	8.2E-07	No	Not Performed, data not Normal or Lognormal
Appendix IV	Lead	High	0.00112 mg/L (6/21/2017 at BV-21) 0.00151 mg/L (5/16/2017 at BV-5) 0.00288 mg/L (7/18/2017 at BV-5)	--	--	--	--	--	--	--	--	Not Performed, <50% Detects
	Radium-226 + Radium-228	High	4.812 pCi/L (7/18/2017 at BV-21)	0.024	0.046	0.055	Yes	0.46	0.13	0.085	Yes	4.812 pCi/L Statistical High Outlier (p-value<0.0001) based on Normality

NOTE:
Dixon's Test can be performed for only one value.
Statistical Significance for Distributional tests and for Dixon's test are based on 95% level of confidence, or α=0.05.

Table C-7. Summary of Distributional Tests
Coleto Creek - Combined Upgradient Wells (BV-21, BV-5, and MW-8)

Constituent List	Constituent	# Detects/ # Samples	% Detects	Defined Distribution	Tests for Normality			Can the Data be defined as Normal?
					Kolmogorov-Smirnov Test	Shapiro-Wilks Test	Probability Plot Correlation	
Appendix III	Boron	24/24	100	Nonparametric	0.0060	0.00028	0.0011	No
	Calcium	24/24	100	Nonparametric	0.0016	0.00012	0.00014	No
	Chloride	24/24	100	Nonparametric	0.018	0.0039	0.013	No
	Fluoride	24/24	100	Nonparametric	0.0055	0.0014	0.0048	No
	field pH	24/24	100	Normal	0.55	0.53	0.57	Yes
	Sulfate	24/24	100	Nonparametric	0.010	0.0028	0.010	No
	Total Dissolved Solids	24/24	100	Gamma	0.035	0.015	0.034	No
Appendix IV	Antimony	0/24	0	All NDs	--	--	--	--
	Arsenic	24/24	100	Nonparametric	5.3E-12	1.8E-06	1.3E-05	No
	Barium	24/24	100	Lognormal	0.011	0.0094	0.024	No
	Beryllium	0/24	0	All NDs	--	--	--	--
	Cadmium	0/24	0	All NDs	--	--	--	--
	Chromium	2/24	8.33	Nonparametric, <50% Detects	--	--	--	--
	Cobalt	24/24	100	Nonparametric	0.0048	0.0017	0.0066	No
	Fluoride	24/24	100	Nonparametric	0.0055	0.0014	0.0048	No
	Lead	3/24	12.5	Nonparametric, <50% Detects	--	--	--	--
	Lithium	16/24	66.67	Nonparametric	0.0018	0.00330	0.00897	No
	Mercury	0/24	0	All NDs	--	--	--	--
	Molybdenum	16/24	66.67	Nonparametric	0.012	0.015	0.030	No
	Selenium	0/24	0	All NDs	--	--	--	--
	Thallium	0/24	0	All NDs	--	--	--	--
	Radium-226 + Radium-228	24/24	100	Gamma	0.021	8.7E-05	0.00012	No

Note:
Statistical Significance for Distributional tests are based on 95% level of confidence, or α=0.05.
'-- No Distributional Test performed since <50% Detects

Table C-7. Summary of Distributional Tests
Coleto Creek - Combined Upgradient Wells (BV-21, BV-5, and MW-8)

Constituent List	Constituent	# Detects/ # Samples	% Detects	Defined Distribution	Tests for Gamma		Can the Data be defined as Gamma?
					Shapiro-Wilks Test	Probability Plot Correlation	
Appendix III	Boron	24/24	100	Nonparametric	0.00017	0.00070	No
	Calcium	24/24	100	Nonparametric	4.8E-07	1.9E-06	No
	Chloride	24/24	100	Nonparametric	0.0042	0.014	No
	Fluoride	24/24	100	Nonparametric	0.00097	0.0033	No
	field pH	24/24	100	Normal	0.49	0.52	Yes
	Sulfate	24/24	100	Nonparametric	0.0063	0.021	No
	Total Dissolved Solids	24/24	100	Gamma	0.054	0.11	Yes
Appendix IV	Antimony	0/24	0	All NDs	--	--	--
	Arsenic	24/24	100	Nonparametric	1.8E-06	1.3E-05	No
	Barium	24/24	100	Lognormal	0.019	0.047	No
	Beryllium	0/24	0	All NDs	--	--	--
	Cadmium	0/24	0	All NDs	--	--	--
	Chromium	2/24	8.33	Nonparametric, <50% Detects	--	--	--
	Cobalt	24/24	100	Nonparametric	0.00047	0.0019	No
	Fluoride	24/24	100	Nonparametric	0.00097	0.0033	No
	Lead	3/24	12.5	Nonparametric, <50% Detects	--	--	--
	Lithium	16/24	66.67	Nonparametric	0.0029	0.0080	No
	Mercury	0/24	0	All NDs	--	--	--
	Molybdenum	16/24	66.67	Nonparametric	0.016	0.031	No
	Selenium	0/24	0	All NDs	--	--	--
	Thallium	0/24	0	All NDs	--	--	--
	Radium-226 + Radium 228	24/24	100	Gamma	0.27	0.12	Yes

Note:
Statistical Significance for Distributional tests are based on 95% level of confidence, or α=0.05.
'-- No Distributional Test performed since <50% Detects

Table C-7. Summary of Distributional Tests
Coleto Creek - Combined Upgradient Wells (BV-21, BV-5, and MW-8)

Constituent List	Constituent	# Detects/ # Samples	% Detects	Defined Distribution	Tests for Lognormality			Can the Data be defined as Lognormal?
					Kolmogorov-Smirnov Test	Shapiro-Wilks Test	Probability Plot Correlation	
Appendix III	Boron	24/24	100	Nonparametric	0.00076	0.00013	0.00056	No
	Calcium	24/24	100	Nonparametric	1.9E-09	7.5E-08	4.3E-07	No
	Chloride	24/24	100	Nonparametric	0.0070	0.0034	0.011	No
	Fluoride	24/24	100	Nonparametric	0.0015	0.00080	0.0028	No
	field pH	24/24	100	Normal	0.48	0.46	0.50	Yes
	Sulfate	24/24	100	Nonparametric	0.021	0.0070	0.023	No
	Total Dissolved Solids	24/24	100	Gamma	0.36	0.091	0.18	Yes
Appendix IV	Antimony	0/24	0	All NDs	--	--	--	--
	Arsenic	24/24	100	Nonparametric	4.9E-11	1.9E-06	1.4E-05	No
	Barium	24/24	100	Lognormal	0.036	0.022	0.053	Yes
	Beryllium	0/24	0	All NDs	--	--	--	--
	Cadmium	0/24	0	All NDs	--	--	--	--
	Chromium	2/24	8.33	Nonparametric, <50% Detects	--	--	--	--
	Cobalt	24/24	100	Nonparametric	0.0025	0.00020	0.00087	No
	Fluoride	24/24	100	Nonparametric	0.0015	0.00080	0.0028	No
	Lead	3/24	12.5	Nonparametric, <50% Detects	--	--	--	--
	Lithium	16/24	66.67	Nonparametric	0.0040	0.0027	0.0075	No
	Mercury	0/24	0	All NDs	--	--	--	--
	Molybdenum	16/24	66.67	Nonparametric	0.0045	0.016	0.031	No
	Selenium	0/24	0	All NDs	--	--	--	--
	Thallium	0/24	0	All NDs	--	--	--	--
	Radium-226 + Radium 228	24/24	100	Gamma	0.55	0.46	0.20	Yes

Note:
Statistical Significance for Distributional tests are based on 95% level of confidence, or α=0.05.
'-- No Distributional Test performed since <50% Detects

Table C-8. Summary Statistics with Baseline Values[1] (UPLs and GWPS)
Coleto Creek - Combined Upgradient Wells (BV-21, BV-5, and MW-8)

Constituent List	Constituent	# Detects/ # Samples	% Detects	Minimum Detected Result	Maximum Detected Result	Baseline Value (UPL/ GWPS)	MCL or RSL[2]	Reporting Limit	UPL 1-of-2	Defined Distribution	single test error rate for annual SWFPR of 10%	Power Rate for UPL 1-of-2
Appendix III	Boron	24/24	100	0.618	1.26	1.3	--	0.03	1.3	Nonparametric	0.015	GOOD
	Calcium	24/24	100	6.89	143	140	--	0.3	140	Nonparametric	0.015	GOOD
	Chloride	24/24	100	36	118	120	--	1	120	Nonparametric	0.015	GOOD
	Fluoride	24/24	100	0.43	0.61	0.61	--	0.4	0.61	Nonparametric	0.015	GOOD
	field pH	24/24	100	6.54	7.22	6.5 - 7.3	--	--	6.5 - 7.3	Normal	0.0013	LOW, GOOD
	Sulfate	24/24	100	44	148	150	--	1	150	Nonparametric	0.015	GOOD
	Total Dissolved Solids	24/24	100	356	862	970	--	10	970	Gamma	0.0025	GOOD
Appendix IV	Antimony	0/24	0	ND	ND	0.006	0.006	0.0025	0.0025	All NDs	--	--
	Arsenic	24/24	100	0.00786	0.128	0.13	0.01	0.005	0.13	Nonparametric	0.012	GOOD
	Barium	24/24	100	0.0368	0.11	2	2	0.01	0.14	Lognormal	0.0019	GOOD
	Beryllium	0/24	0	ND	ND	0.004	0.004	0.001	0.001	All NDs	--	--
	Cadmium	0/24	0	ND	ND	0.005	0.005	0.001	0.001	All NDs	--	--
	Chromium	2/24	8.3	0.00739	0.00744	0.1	0.1	0.005	0.0074	Nonparametric, <50% Detects	0.012	GOOD
	Cobalt	24/24	100	0.00744	0.0499	0.050	0.006	0.005	0.050	Nonparametric	0.012	GOOD
	Fluoride	24/24	100	0.43	0.61	4	4	0.25	0.61	Nonparametric	0.012	GOOD
	Lead	3/24	13	0.00112	0.00288	0.015	0.015	0.001	0.0029	Nonparametric, <50% Detects	0.012	GOOD
	Lithium	16/24	67	0.0107	0.022	0.04	0.04	0.01	0.022	Nonparametric	0.012	GOOD
	Mercury	0/24	0	ND	ND	0.002	0.002	0.0002	0.0002	All NDs	--	--
	Molybdenum	16/24	67	0.0083	0.0185	0.1	0.1	0.005	0.019	Nonparametric	0.012	GOOD
	Selenium	0/24	0	ND	ND	0.05	0.05	0.005	0.005	All NDs	--	--
	Thallium	0/24	0	ND	ND	0.002	0.002	0.0015	0.0015	All NDs	--	--
	Radium-226 + Radium-228	24/24	100	0.132	4.812	5	5	0	3.8	Gamma	0.0019	GOOD

Notes:

1. All concentrations in mg/L. pH in standard units.
3. RSL provided for Cobalt, Lithium, Lead, and Molybdenum

Figures

Coleto Creek−Primary Ash Pond

Figure C−1. Appendix III − Boron

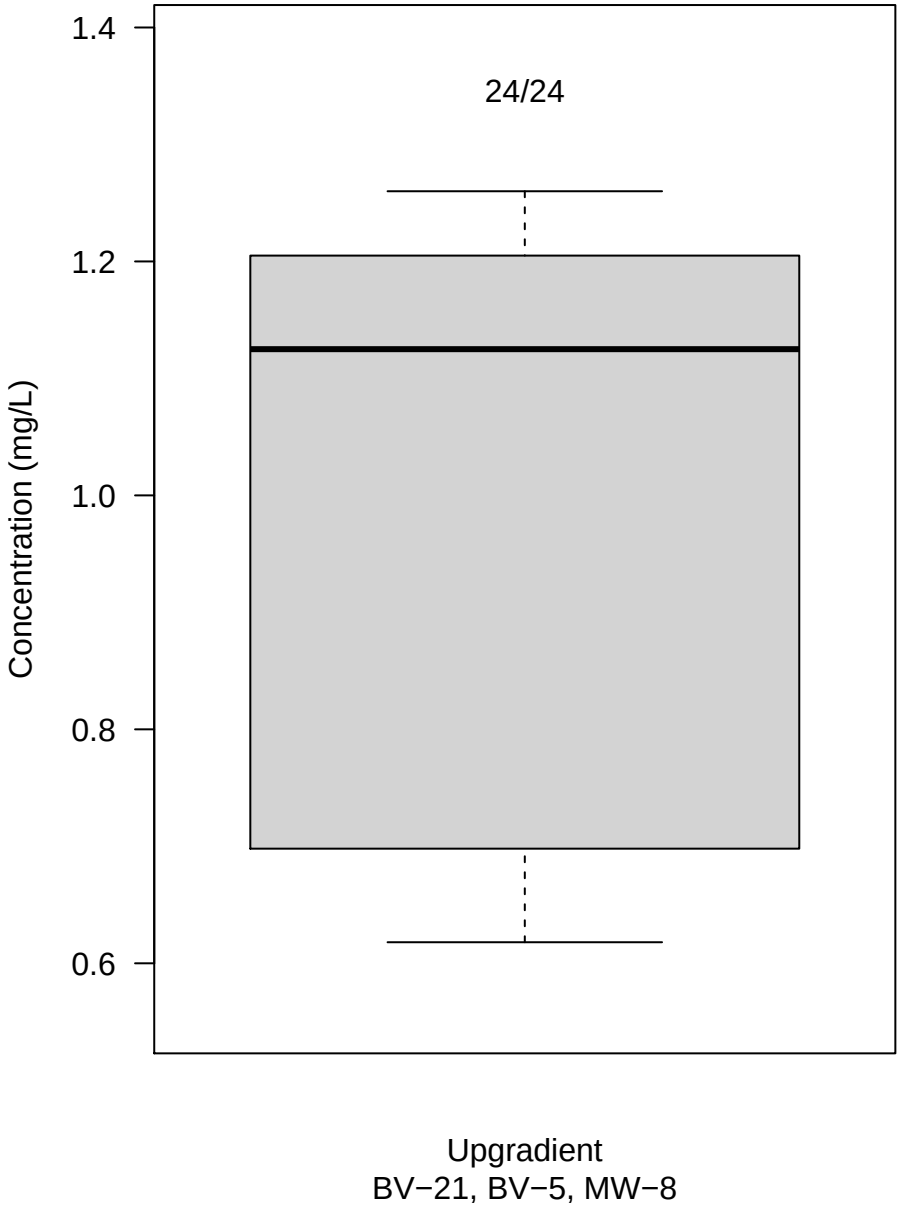
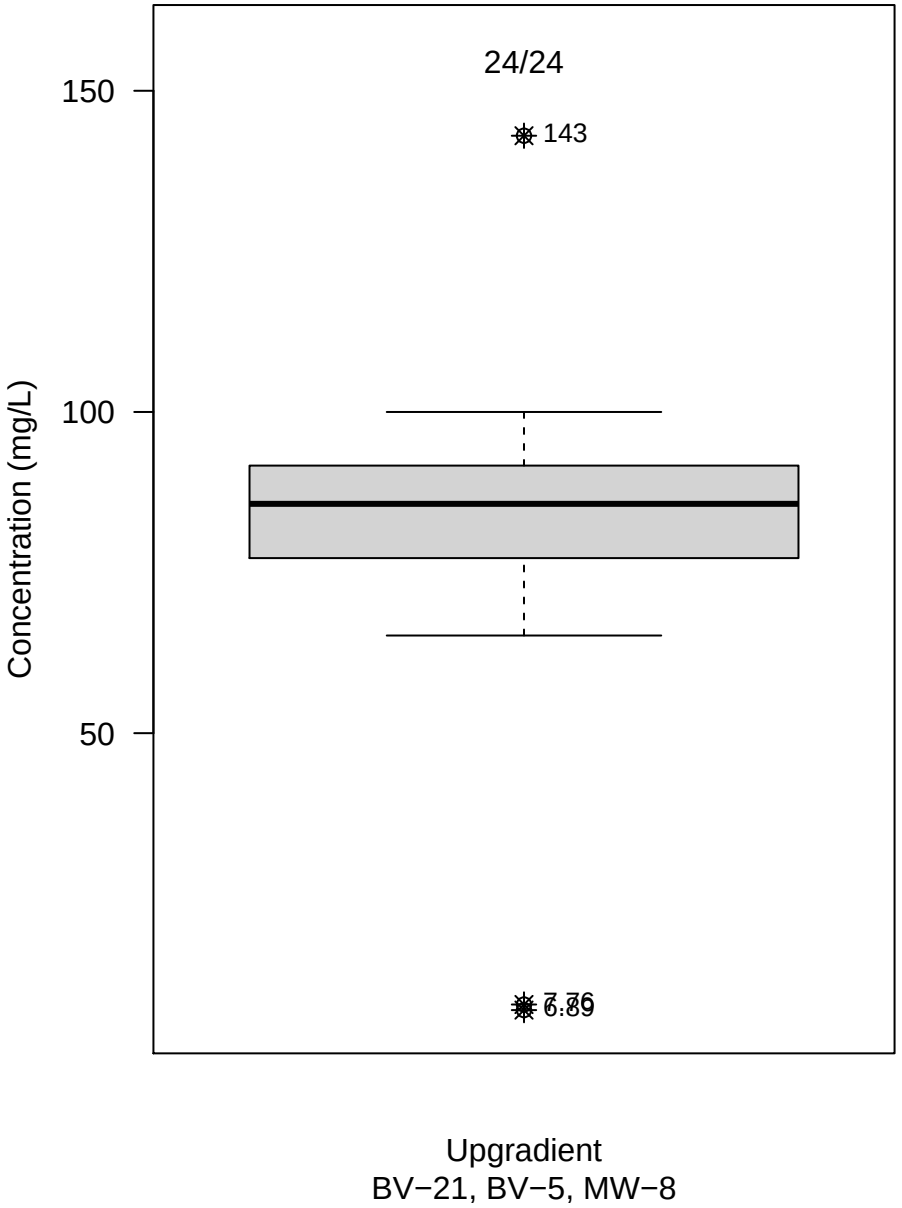


Figure C−2. Appendix III − Calcium



Coleto Creek−Primary Ash Pond

Figure C−3. Appendix III − Chloride

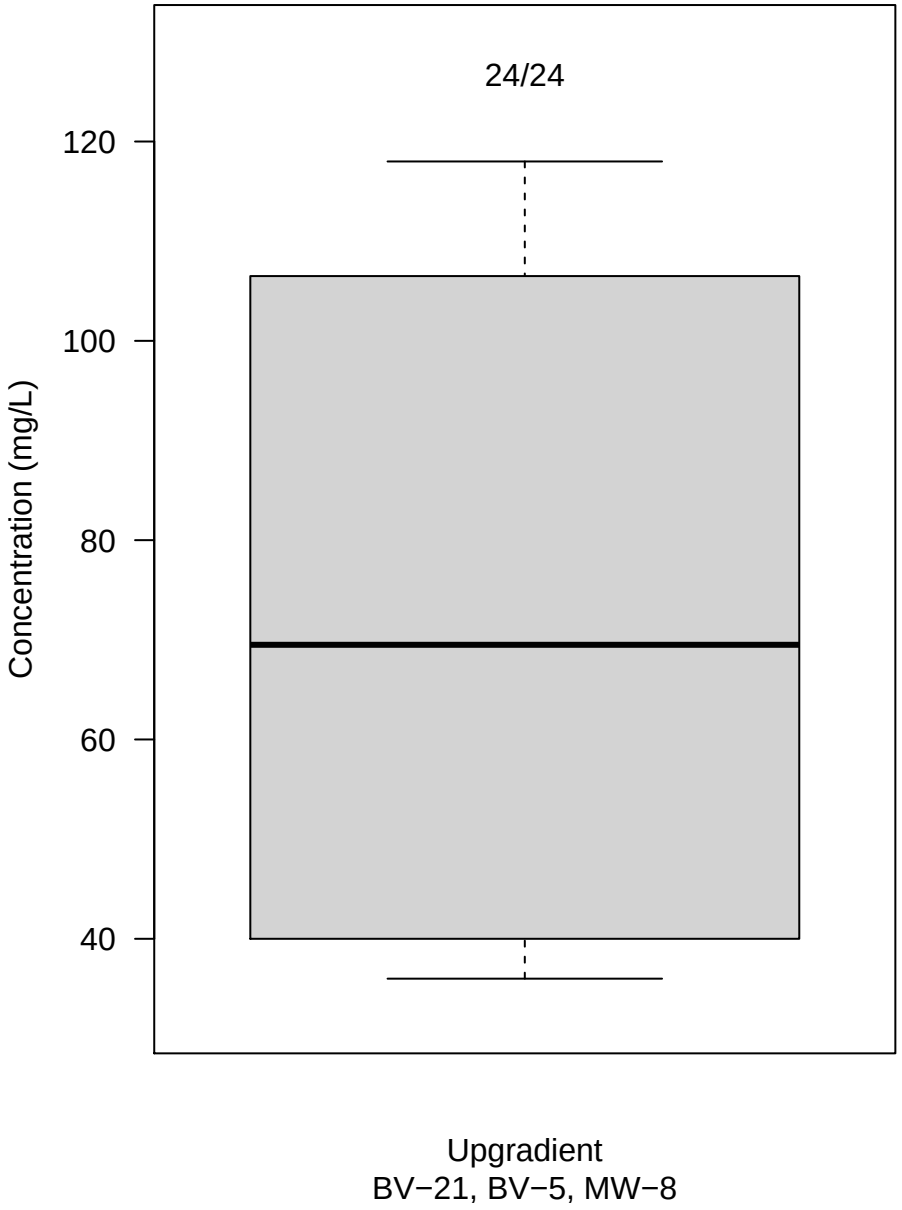


Figure C−4. Appendix III − Fluoride

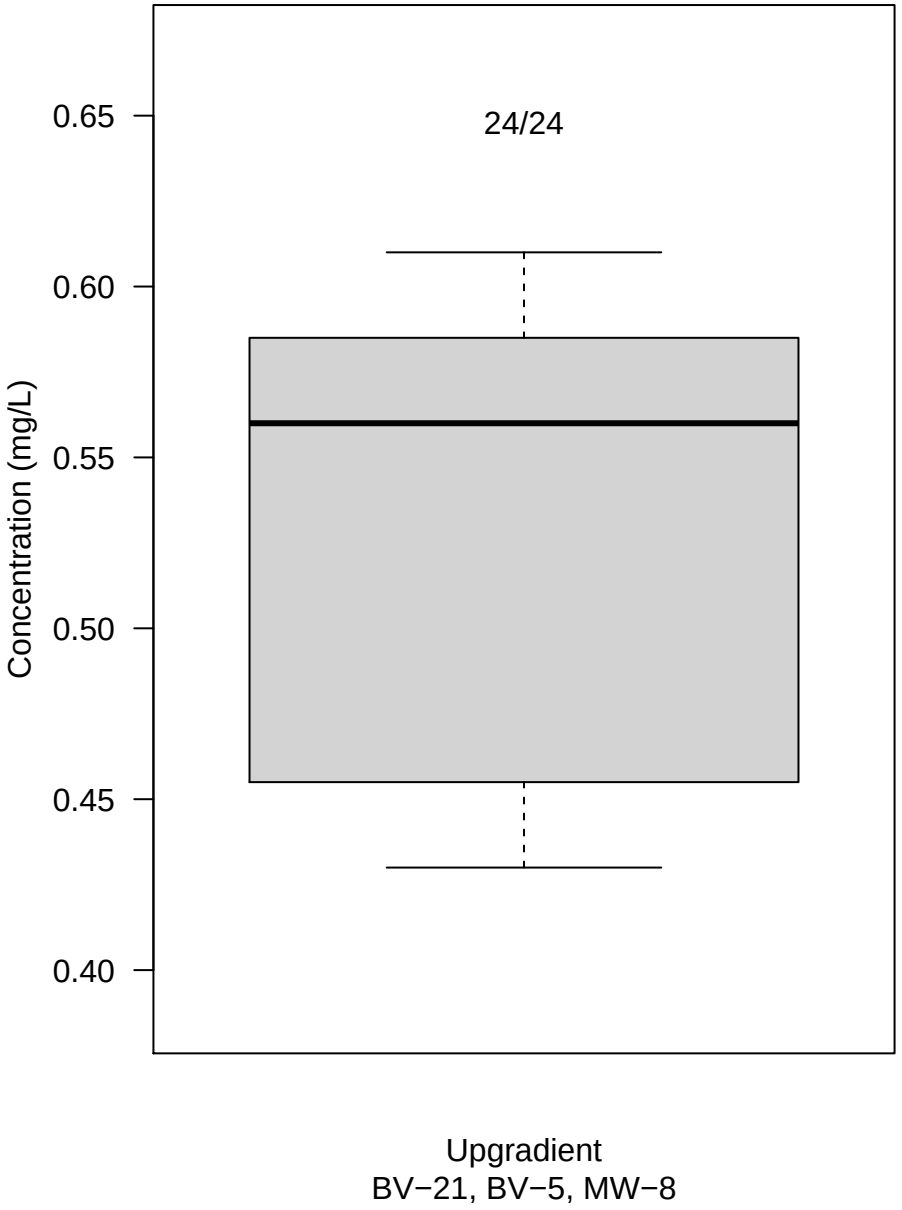


Figure C−5. Appendix III − field pH

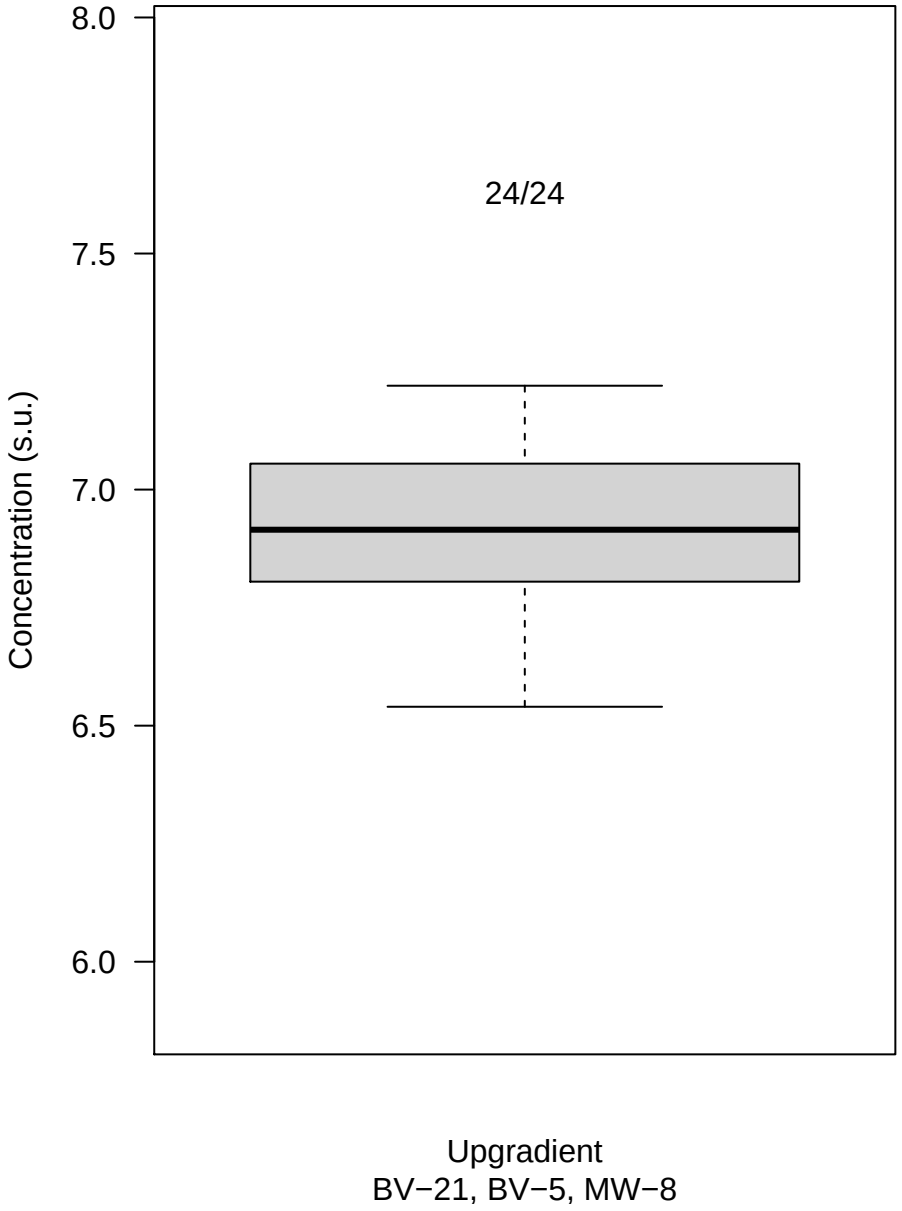
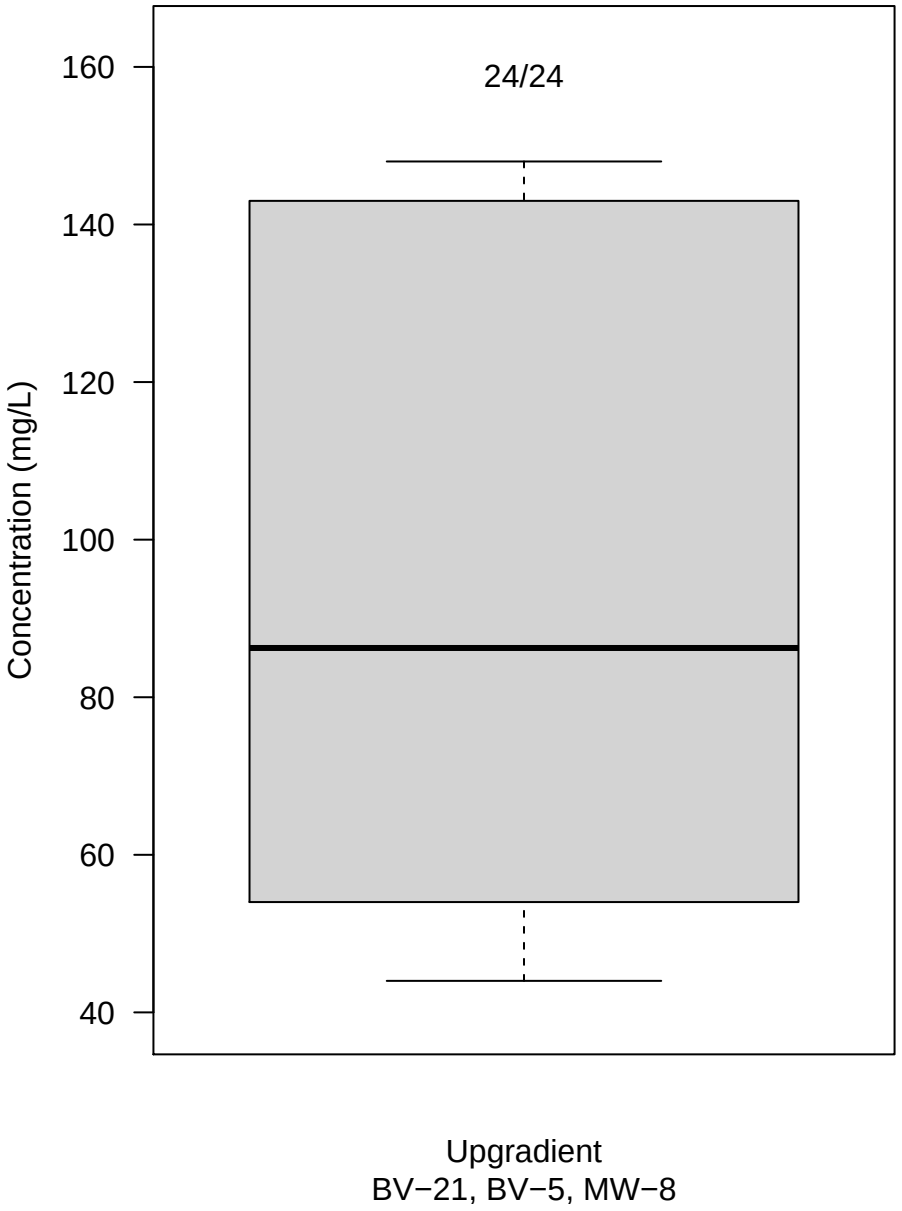


Figure C−6. Appendix III − Sulfate



Coleto Creek−Primary Ash Pond

Figure C−7. Appendix III − Total Dissolved Solids

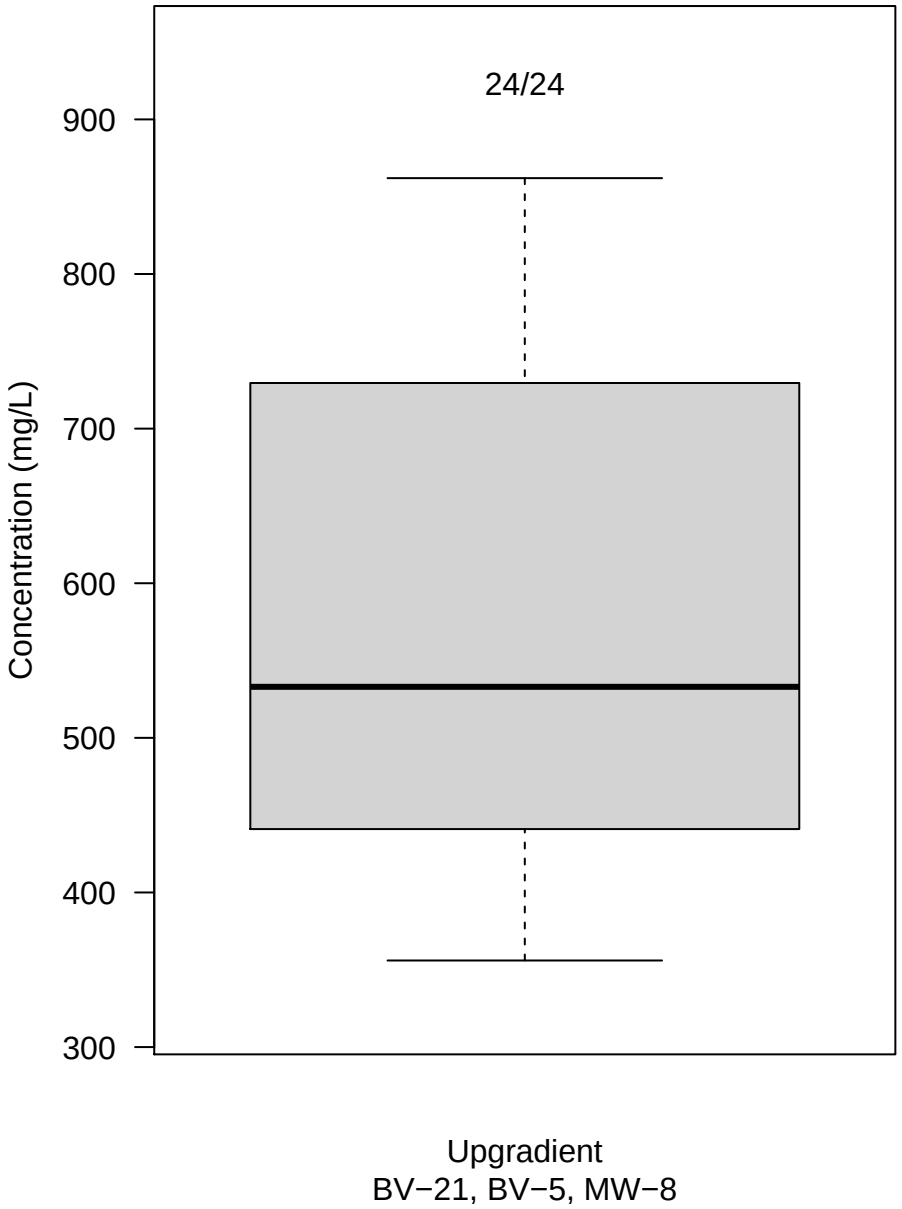
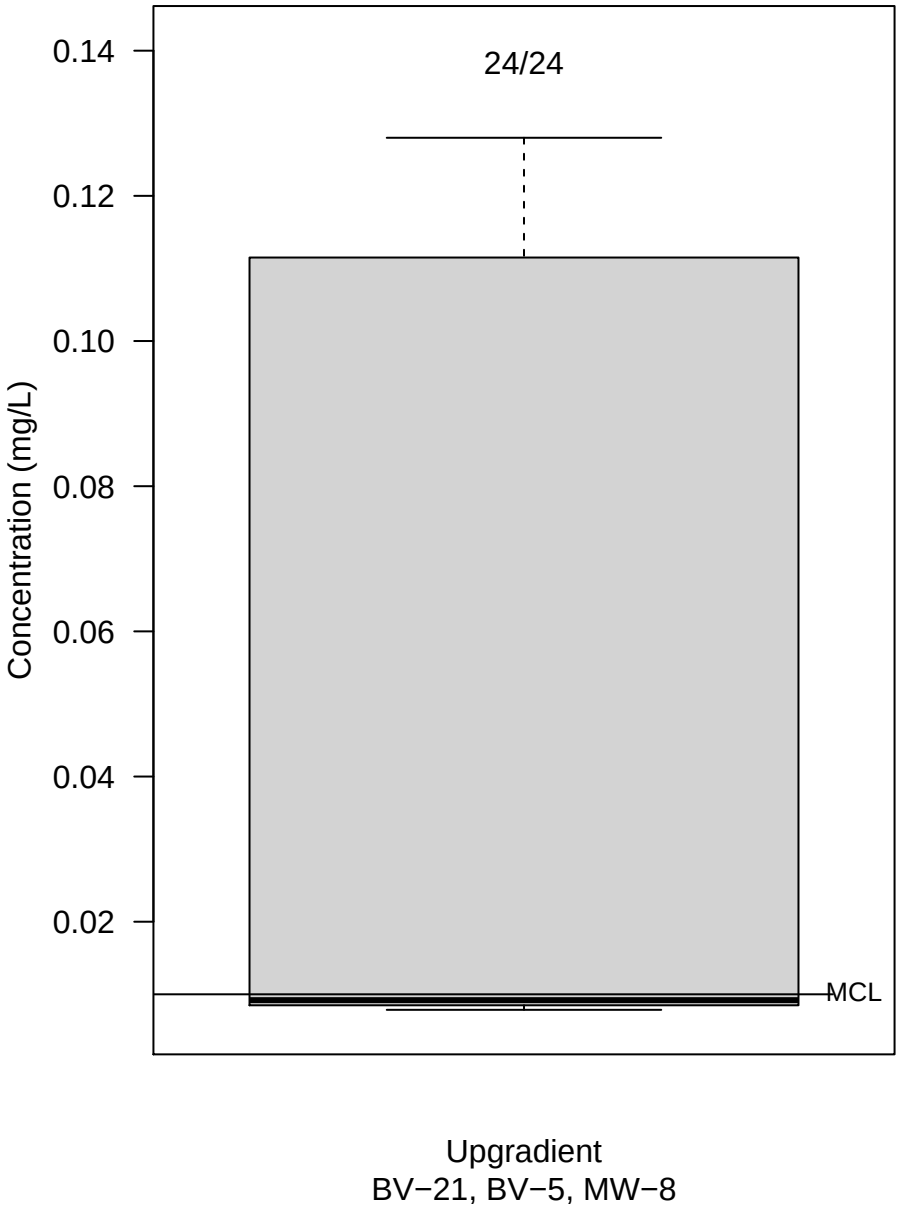


Figure C−8. Appendix IV − Arsenic



Coleto Creek−Primary Ash Pond

Figure C−9. Appendix IV − Barium

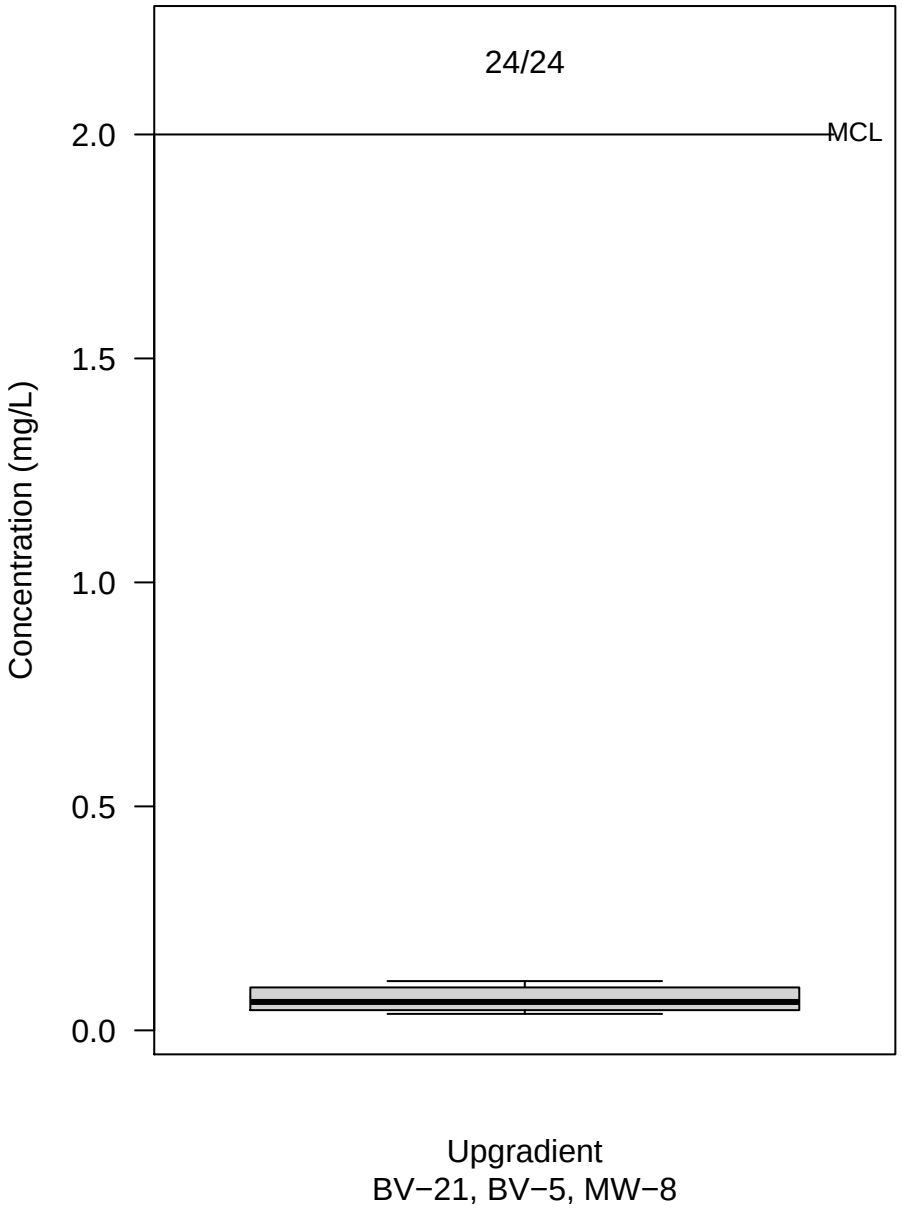
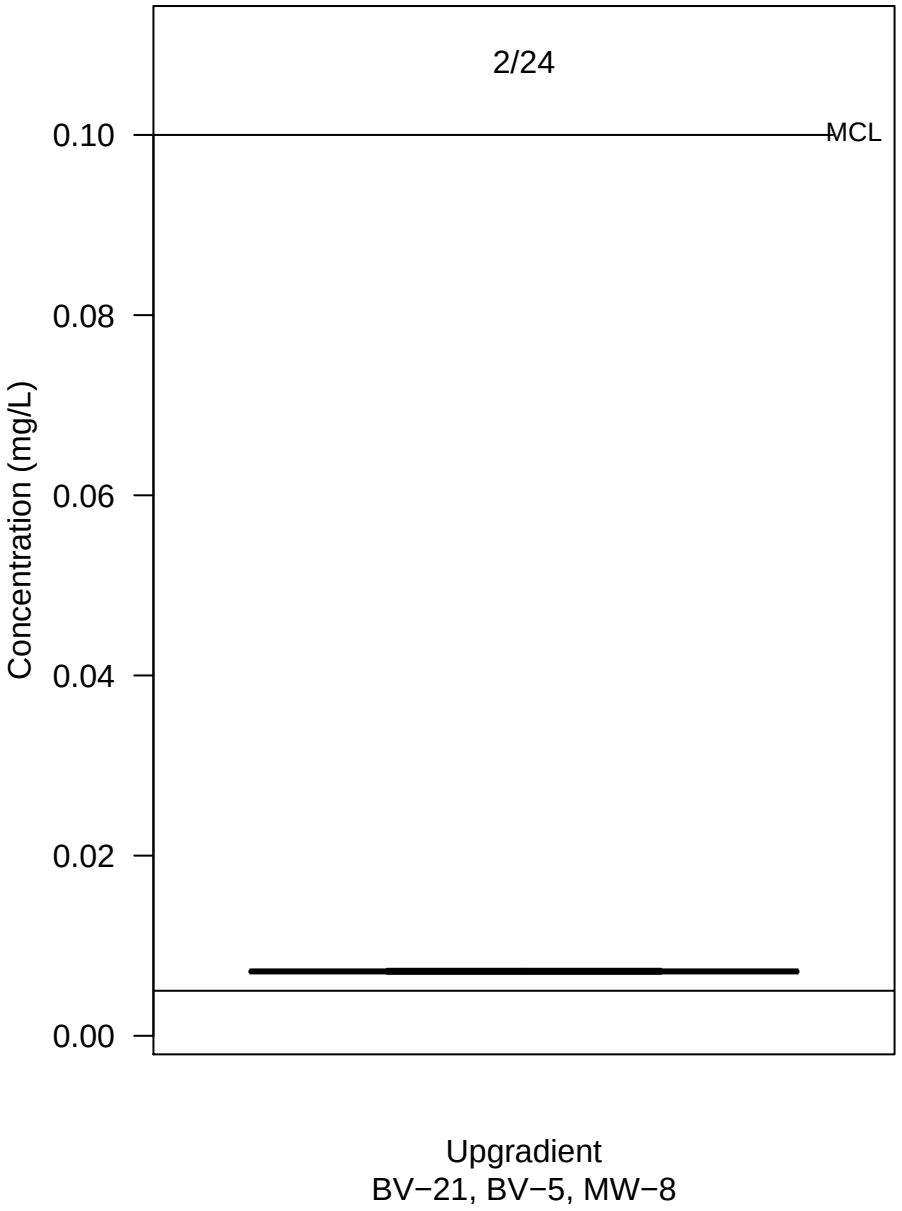


Figure C−10. Appendix IV − Chromium



Coleto Creek−Primary Ash Pond

Figure C−11. Appendix IV − Cobalt

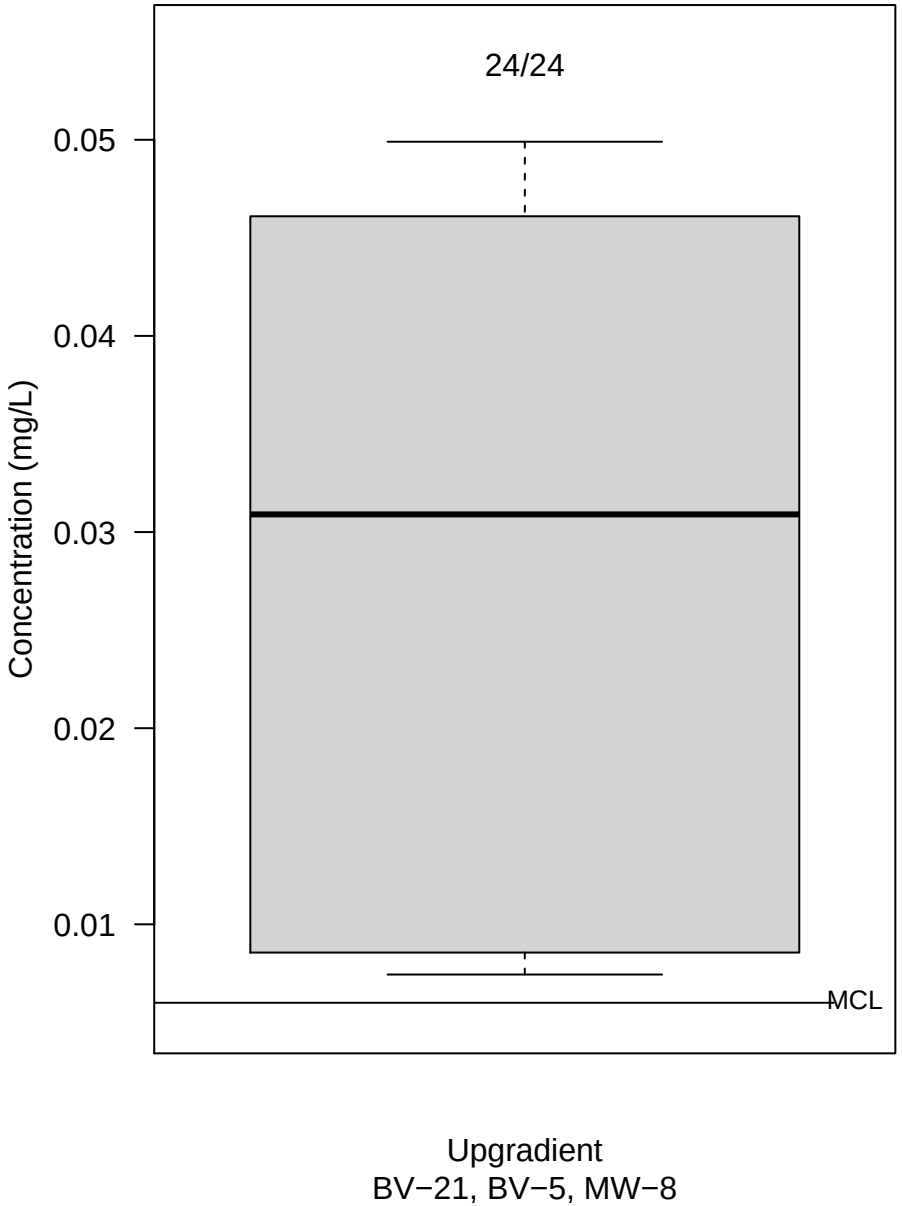


Figure C−12. Appendix IV − Fluoride

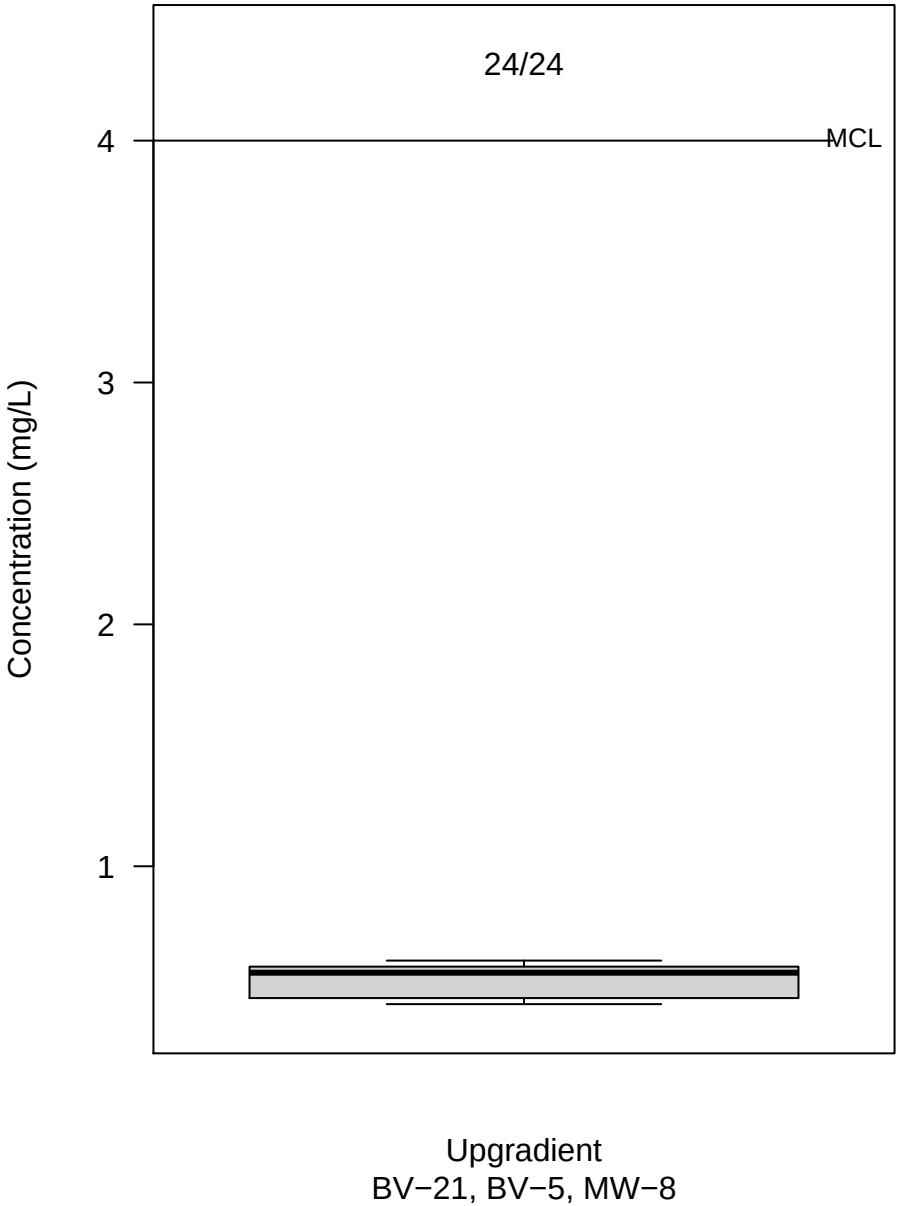


Figure C−13. Appendix IV − Lead

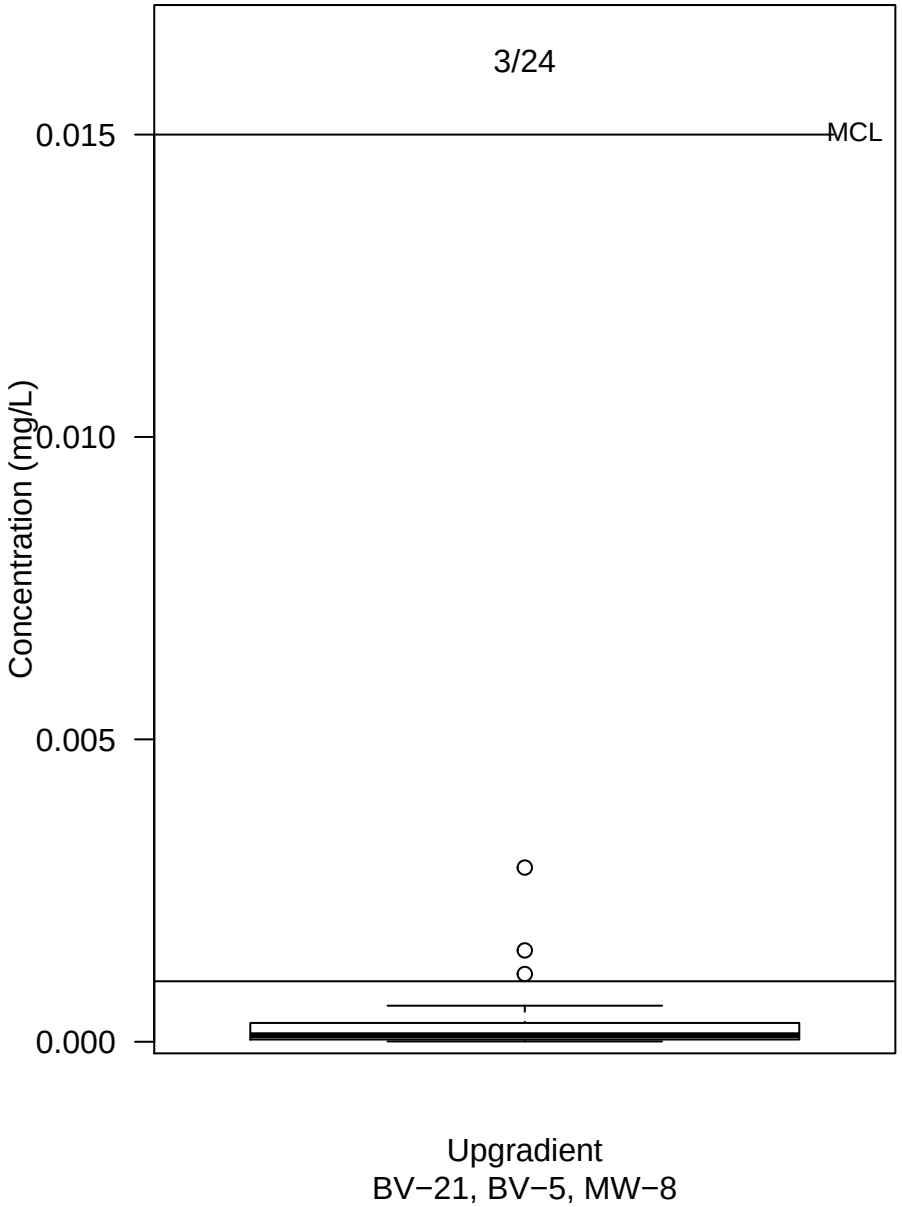


Figure C−14. Appendix IV − Lithium

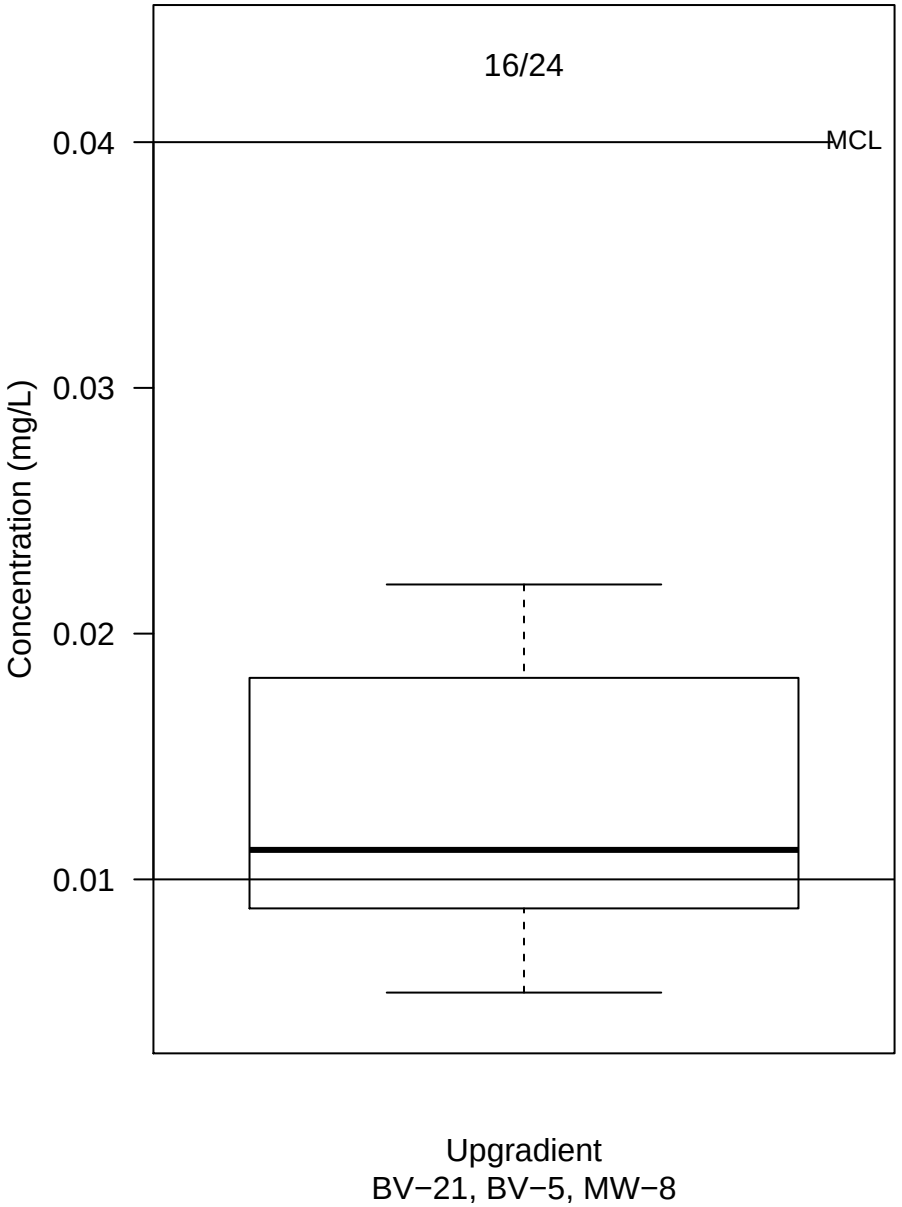


Figure C−15. Appendix IV − Molybdenum

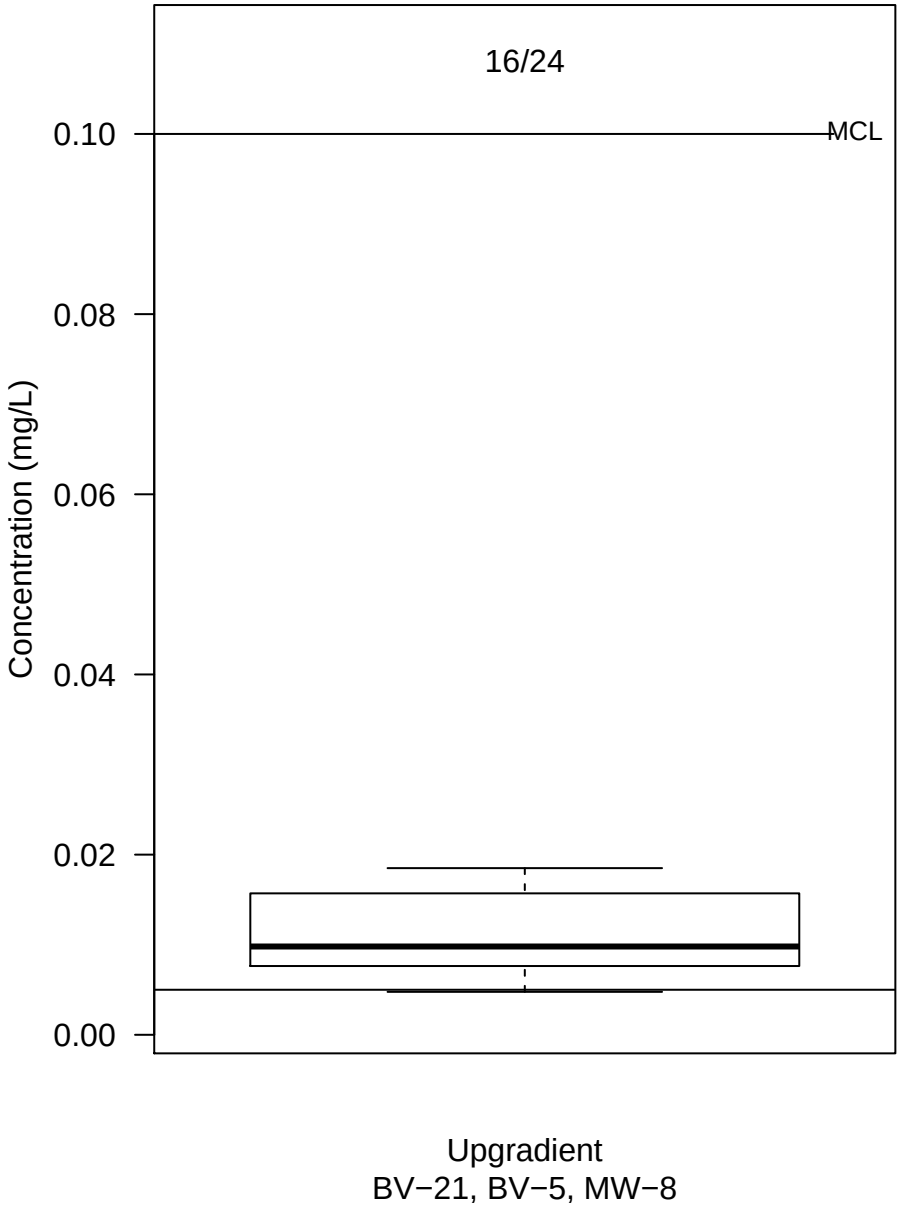
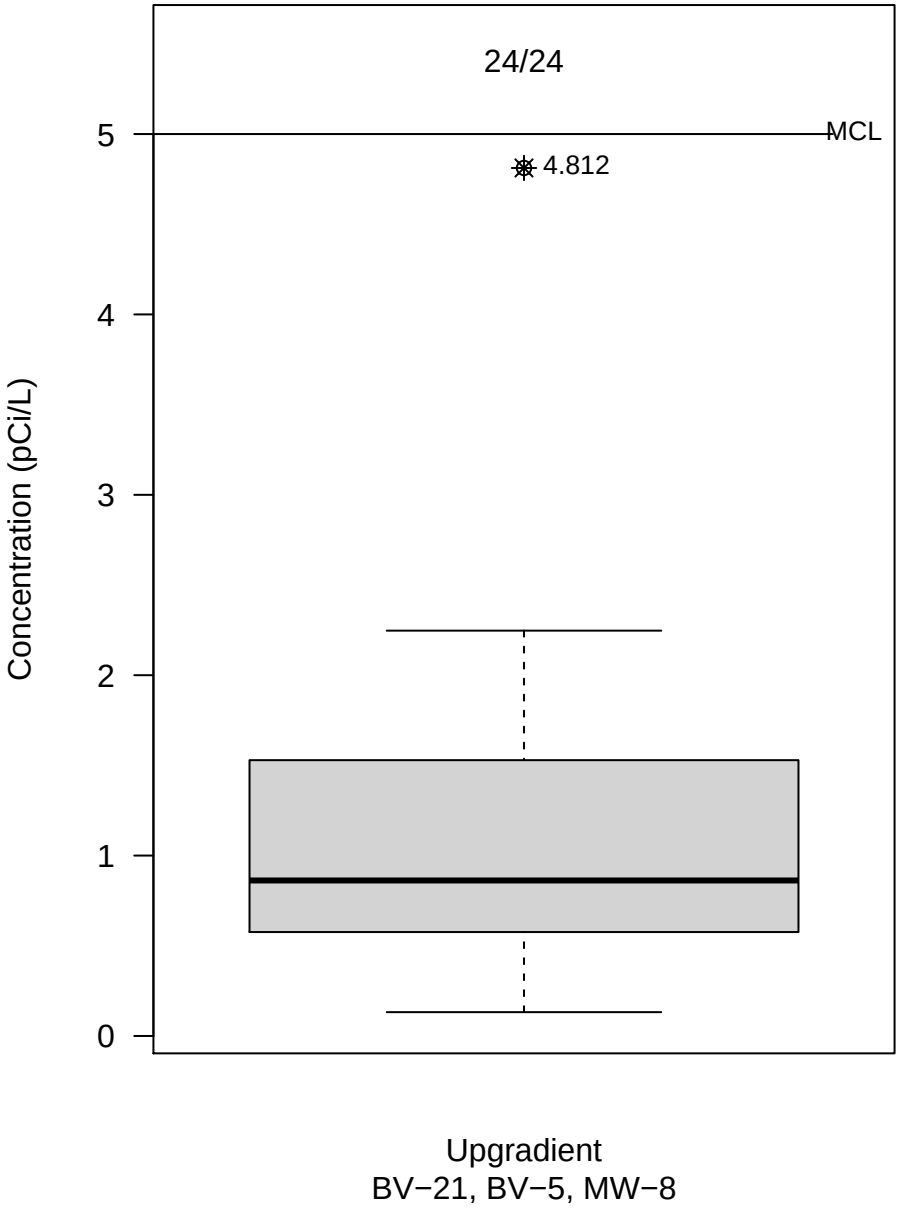
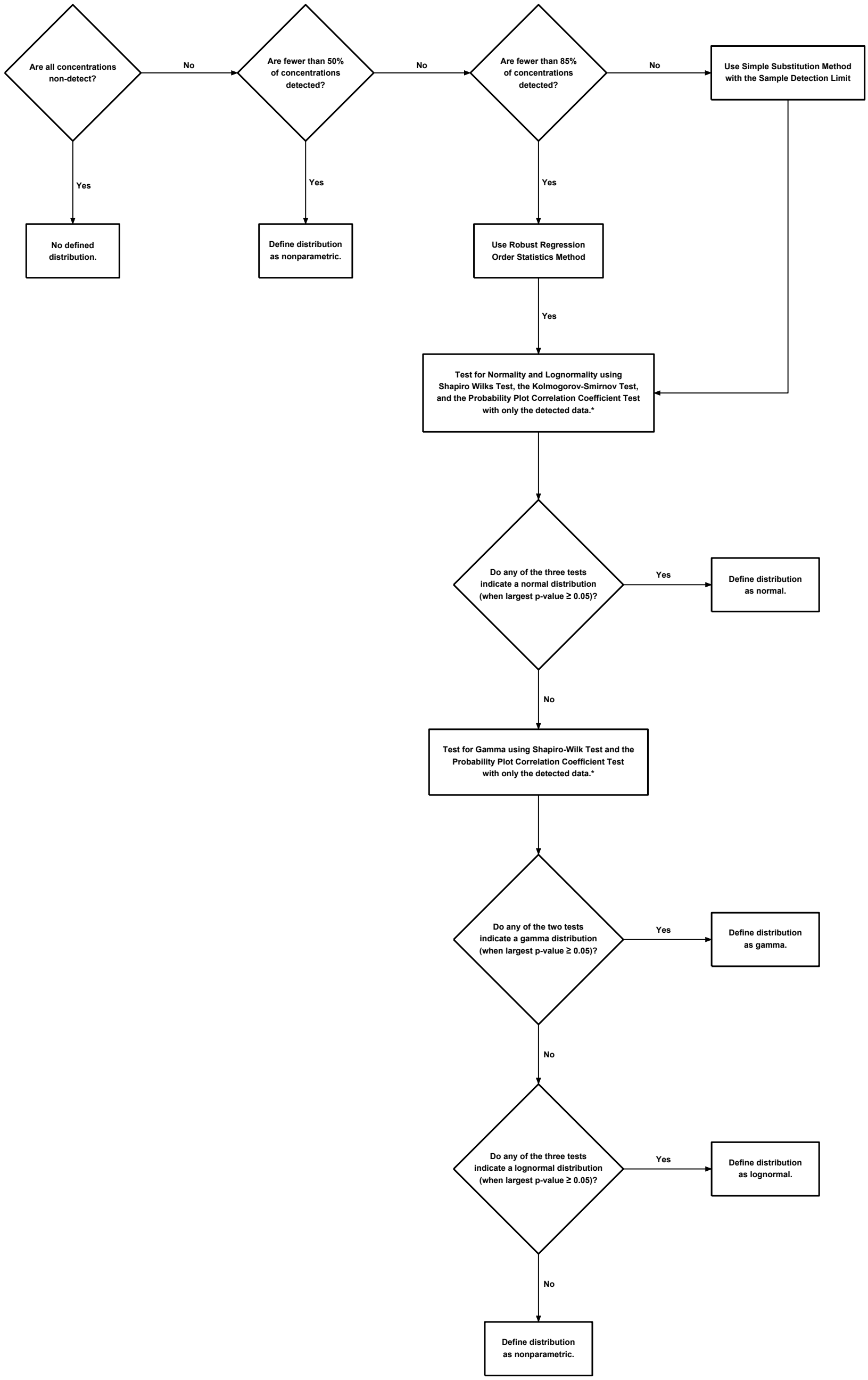


Figure C−16. Appendix IV − Radium−226 + Radium−228





Note:

* - Distributional tests can not be performed for the following cases:

1. For a data group with fewer than five detected samples, the Kolmogorov-Smirnov Test and the Probability Plot Correlation Coefficient Test can not be performed using only the detected concentrations.
2. For a data group with fewer than four detected samples, the Shapiro-Wilks Test can not be performed using only the detected concentrations.

Figure C-17

PROCESS FOR DEFINING A DISTRIBUTION FOR A DATA SET

Attachment 3

Closure Plan Addendum No. 2

Bullock, Bennett & Associates, LLC

www.bbaengineering.com
165 N. Lampasas St. • Bertram, Texas 78605 • Telephone (512) 355-9198, Fax (512) 355-9197

TECHNICAL MEMORANDUM

TO: Eric Chavers – Luminant
FROM: Dan Bullock, P.E. – BBA (TX PE No. 82596)
RE: Closure Plan for Coleto Creek Primary Ash Pond – Addendum No. 2
DATE: October 6, 2023

This Addendum No. 2 to the Closure Plan for the Coleto Creek Primary Ash Pond (PAP) at the Coleto Creek Power Station has been prepared to update the following closure plan sections (updated information provided in italics) and to provide conceptual-level closure design drawings and specifications (Attachment A – Conceptual Closure Design – Primary Ash Pond). Final closure design has been initiated to meet the outlined schedules. A closure plan revision will be submitted to TCEQ once the final design is complete.

CLOSURE PLAN FOR EXISTING CCR SURFACE IMPOUNDMENT 40 CFR §257.102 (B)

SITE INFORMATION

Owner Name / Address: *Coleto Creek Power, LLC / 6555 Sierra Drive, Irving, TX 75039*

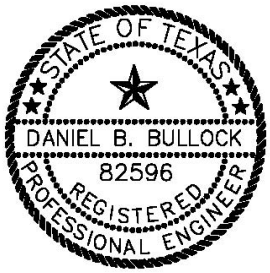
ATTACHMENT

Attachment A – Conceptual Closure Design – Primary Ash Pond, October 2023

PROFESSIONAL CERTIFICATION

This document and all attachments were prepared by Bullock, Bennett & Associates, LLC under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I hereby certify that this Addendum No. 2 to the Closure Plan for the Coleto Creek Primary Ash Pond has been prepared in accordance with the requirements of *40 C.F.R. §257.102*.

Daniel B. Bullock, P.E. (TX 82596)



10/06/2023

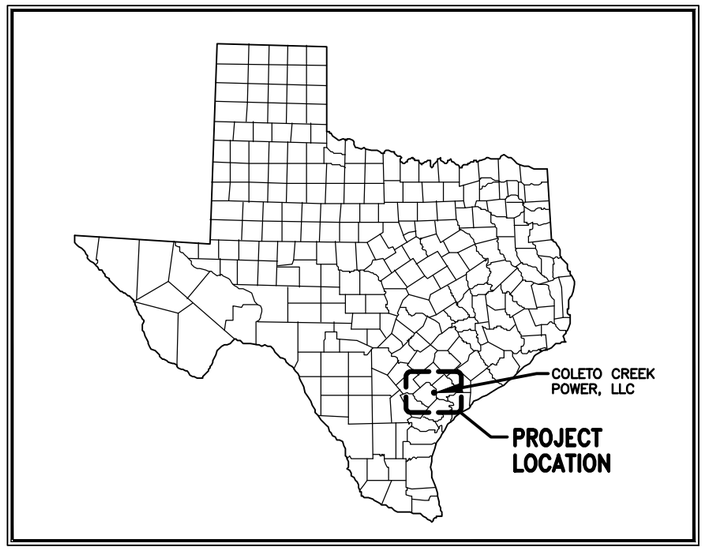
Attachment A - Conceptual Closure Design, Primary Ash Pond

COLETO CREEK POWER, LLC
FANNIN, TEXAS

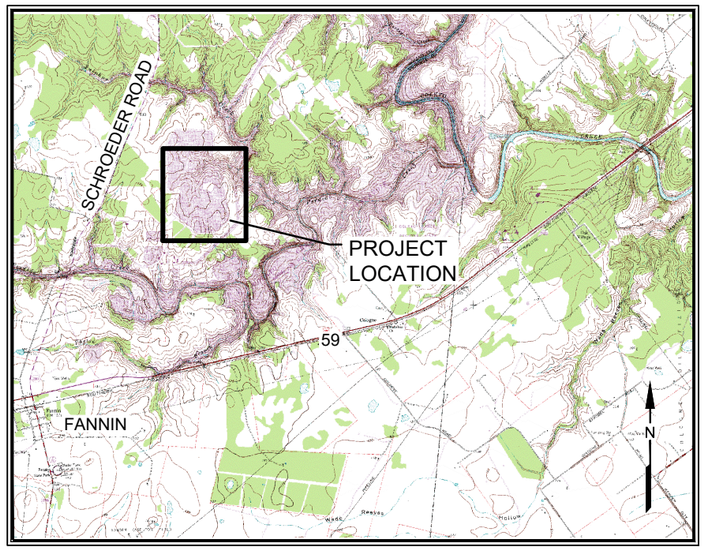
CONCEPTUAL CLOSURE DESIGN - PRIMARY ASH POND

(NOT FOR CONSTRUCTION)

OCTOBER 2023



VICINITY MAP



LOCATION MAP

DRAWING INDEX:

Bullock, Bennett & Associates, LLC

ENGINEERING AND GEOSCIENCE
Texas Registration Number 8542

165 N. LAMPASAS STREET, BERTRAM, TEXAS 78605
TELEPHONE (512) 355-9198
FAX (512) 355-9197

STATE OF TEXAS
DANIEL B. BULLOCK
82596
REGISTERED
PROFESSIONAL ENGINEER
Daniel B. Bullock
October 6, 2023

Plot Date: 10/06/23 - 8:46am, Plotted by: Admin
Drawing Path: K:\clients\bba\Coleto Ck\23643-07\, Drawing Name: G-GS-102.dwg

GENERAL NOTES:

1. THE COLETO CREEK PRIMARY ASH POND (PAP) WILL BEGIN CONSTRUCTION OF CLOSURE BY APRIL 17, 2025 AS INDICATED IN THE COLETO CREEK POWER PLANT ALTERNATIVE CLOSURE DEMONSTRATION DATED NOVEMBER 30, 2020. CLOSURE WILL BE COMPLETED BY OCTOBER 17, 2028, IN ACCORDANCE WITH 40 C.F.R. § 257.103(f)(2)(iv)(B).

2. THE PAP CLOSURE AND FINAL COVER SYSTEM ARE CURRENTLY BEING DESIGNED FOR FUTURE INSTALLATION. VARIOUS CONCEPTUAL LEVEL FINAL COVER SYSTEM ALTERNATIVES, COMPLIANT WITH CCR RULES FOR AN UNLINED IMPOUNDMENT, ARE BEING EVALUATED FOR USE ON THE PAP. THIS CONCEPTUAL LEVEL DESIGN SET IS PROVIDED FOR INTERIM STATUS REVIEW ONLY, AND IS NOT PREPARED FOR CONSTRUCTION PURPOSES. THE CONCEPTUAL GRADING PLAN, FINAL COVER SYSTEM DESIGN AND STORM WATER CONTROLS PRESENTED HEREIN ARE SUBJECT TO CHANGE, AND UPON COMPLETION OF THE FINAL, ENGINEERED DESIGN PACKAGE WILL BE SUBMITTED TO TCEQ FOR REVIEW AND APPROVAL PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES AND IN ACCORDANCE WITH CCR RULES.

3. UPON COMPLETION OF THE FINAL ENGINEERING DESIGN FOR THE PAP CLOSURE AND FINAL COVER SYSTEM, DETAILED, ENGINEER-SEALED CONSTRUCTION PLANS AND SPECIFICATIONS WILL BE PROVIDED TO TCEQ FOR REVIEW. ALL FINAL COVER SYSTEM COMPONENTS WILL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH GOOD ENGINEERING PRACTICE AND INDUSTRY STANDARDS. ALL FIELD AND LABORATORY CONSTRUCTION QUALITY ASSURANCE TESTING WILL BE PERFORMED IN GENERAL ACCORDANCE WITH STANDARD PROCEDURES ESTABLISHED BY ASTM, AASHTO, TEXAS DEPARTMENT OF TRANSPORTATION, OR OTHER STANDARDS APPROVED BY ENGINEER.

4. IN GENERAL, THE NORTH PORTION OF THE PAP CONTAINS A THIN LAYER OF CCR MATERIALS. THE NORTH AREA CCR MATERIALS WILL BE EXCAVATED AND CONSOLIDATED TO THE SOUTH PORTION OF THE PAP, AND THE NORTH PORTION WILL BE CLOSED BY REMOVING THE CCR MATERIALS IN ACCORDANCE WITH STATE AND FEDERAL RULES. THE CONSOLIDATED SOUTH PORTION OF THE PAP WILL RECEIVE FINAL COVER IN ACCORDANCE WITH CCR RULES. THE LIMITS OF THE CONSOLIDATED FINAL COVER CCR AREAS INDICATED IN THIS CONCEPTUAL-LEVEL DESIGN ARE INITIAL APPROXIMATIONS AND WILL BE REVISED UPON COMPLETION OF FINAL ENGINEERING DESIGN.

5. PROPOSED PAP FINAL COVER ELEVATIONS INDICATED ON THESE DRAWINGS ARE PRELIMINARY AND MAY BE REVISED PRIOR TO FINAL DESIGN; HOWEVER, FINAL COVER SLOPES WILL GENERALLY REMAIN BETWEEN APPROXIMATELY 3 TO 5%. IF STEEPER AREAS ARE INCLUDED, ADEQUATE EROSION PROTECTION WILL BE INCORPORATED.

6. A COMBINATION OF EROSION CONTROL BLANKETS, SILT FENCE, HAY-BALE DIKES AND ROCK FILTER DAMS AS APPROPRIATE, WILL BE INSTALLED IN DISTURBED AREAS WHERE THERE IS POTENTIAL FOR STORMWATER RUNOFF.

7. STORMWATER CONTROL BERMS AND LET-DOWN STRUCTURES WILL BE USED AS APPROPRIATE TO ROUTE STORMWATER RUNOFF IN A MANNER PROTECTIVE OF THE PAP FINAL COVER SYSTEM.

STATE OF TEXAS
DANIEL B. BULLOCK
82596
REGISTERED
PROFESSIONAL ENGINEER
October 6, 2023

Coleto Creek Power, LLC
Conceptual Closure Design

SHEET 2

GENERAL NOTES

PROJECT: 23643-07	BY: RCAD-RR	DATE: OCT 2023	CHECKED: DBB

Bullock, Bennett & Associates, LLC
Engineering and Geoscience
Texas Registrations: Engineering F-8542, Geoscience 50127

N

APPROXIMATE SCALE IN FEET

0 400 800

NOTE:

AERIAL IMAGE PROVIDED BY PLEX-EARTH USING GOOGLE EARTH. IMAGE TAKEN JANUARY 2023.

EXISTING DISCHARGE STRUCTURE TO BE REMOVED AND PROPERLY DISPOSED.

STATE OF TEXAS
DANIEL B. BULLOCK
82596
REGISTERED
PROFESSIONAL ENGINEER

Daniel B. Bullock
October 6, 2023

Coleto Creek Power, LLC
Conceptual Closure Design

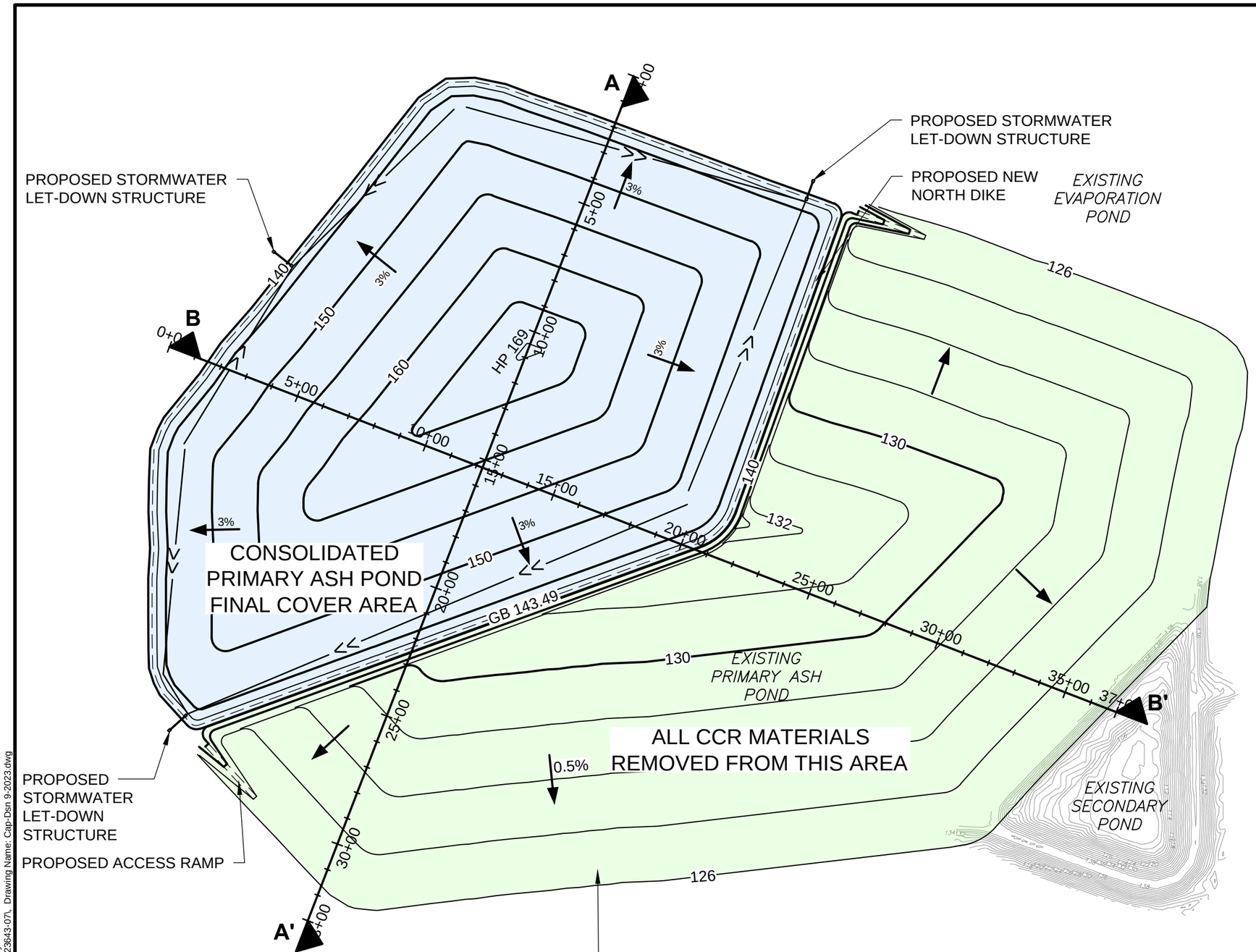
SHEET 3

EXISTING SITE CONDITIONS

PROJECT: 23643-07	BY: RCAD-RR	DATE: OCT 2023	CHECKED: DBB

Bullock, Bennett & Associates, LLC
Engineering and Geoscience
Texas Registrations: Engineering F-8542, Geoscience 50127

Plot Date: 10/06/23 - 8:51am, Plotted by: Admin
Drawing Path: K:\clients\bba\Coleto CK\23643-07\, Drawing Name: Cap-Dsn 9-2023.dwg



N

APPROXIMATE SCALE IN FEET

0 400 800

SOURCE:

ON-GROUND TOPOGRAPHIC AND BATHYMETRIC SURVEY PROVIDED BY T. BAKER SMITH (3854 FM 1069, ARANSAS PASS, TX. 78336, 361-334-5719) ON AUGUST 2021. HORIZONTAL DATUM: NAD83, TEXAS CENTRAL SOUTH ZONE, US FEET. VERTICAL DATUM: NAVD88, GRID UNITS, US SURVEY FEET.

LEGEND:

- EXISTING CONTOUR (FT. MSL) C.I. = 1 Foot
- EXISTING CONTOURS (FT. MSL)C.I.= 5 Feet
- PROPOSED CONTOURS (FT. MSL) C.I.= 1 Foot
- PROPOSED CONTOURS (FT. MSL) C.I.= 5 Feet
- PROPOSED STORMWATER COLLECTOR BERM
- DIRECTION OF FLOW

STATE OF TEXAS
DANIEL B. BULLOCK
82596
REGISTERED PROFESSIONAL ENGINEER

Daniel B. Bullock
October 6, 2023

Coleto Creek Power, LLC
Conceptual Closure Design

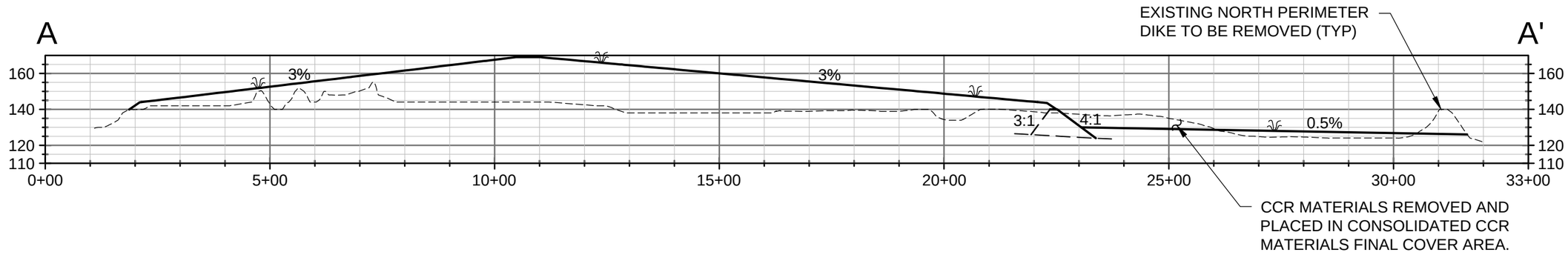
SHEET 4

CONCEPTUAL FINAL CLOSURE GRADING PLAN

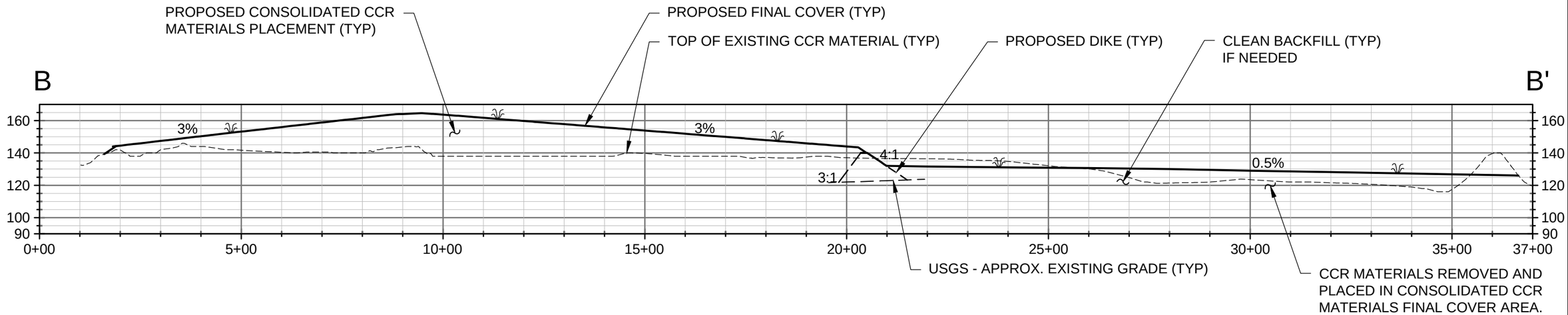
PROJECT: 23643-07	BY: RCAD-RR	DATE: OCT 2023	CHECKED: DBB

Bullock, Bennett & Associates, LLC
Engineering and Geoscience
Texas Registrations: Engineering F-8542, Geoscience 50127

Plot Date: 10/06/23 - 8:52am, Plotted by: Admin
Drawing Path: K:\clients\bba\Coleto Ck\23643-07\, Drawing Name: Cap-Dsn 9-2023.dwg



CROSS SECTION A-A'



CROSS SECTION B-B'

NOTE:

ALL LIMITS OF CCR MATERIALS INDICATED AND ALL GRADES INDICATED ARE CONCEPTUAL AND WILL BE ADJUSTED AS APPROPRIATE UPON EVALUATION OF SITE CONDITIONS AND PREPARATION OF FINAL ENGINEERING DESIGN DRAWINGS.

STATE OF TEXAS
DANIEL B. BULLOCK
82596
REGISTERED
PROFESSIONAL ENGINEER
Daniel B. Bullock
October 6, 2023

Coleto Creek Power, LLC
Conceptual Closure Design

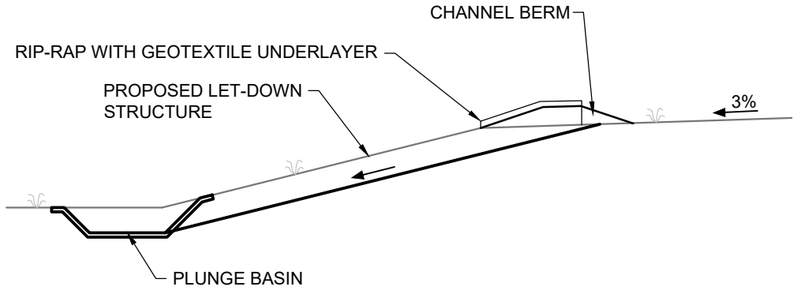
SHEET 5

CROSS SECTIONS A-A' & B-B'

PROJECT: 23643-07	BY: RCAD-RR	DATE: OCT 2023	CHECKED: DBB

Bullock, Bennett & Associates, LLC
Engineering and Geoscience
Texas Registrations: Engineering F-8542, Geoscience 50127

Plot Date: 10/06/23 - 8:53am, Plotted by: Admin
Drawing Path: K:\clients\bba\Coleto Ck\23643-07\, Drawing Name: Cap-Dsn 9-2023.dwg

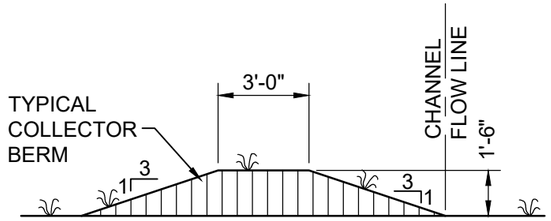


LET-DOWN STRUCTURE

PROFILE

Scale in Feet

0 3

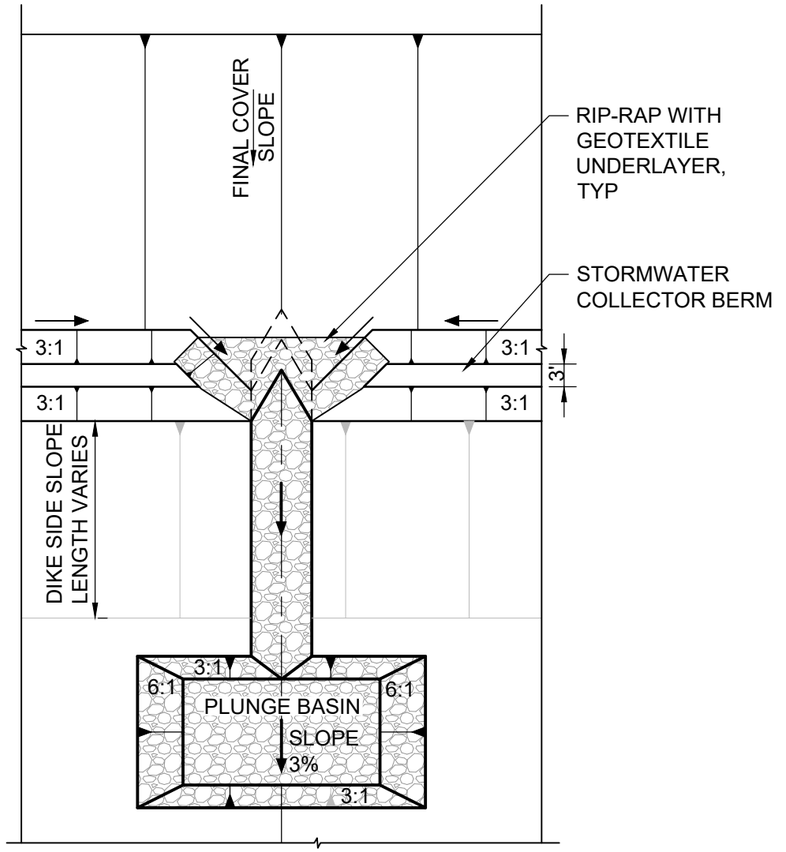


COLLECTOR CHANNEL BERM

SECTION

Scale in Feet

0 5



* COLLECTOR BERMS TO BE ORIENTED AS-NEEDED TO DIVERT STORMWATER TO LET-DOWN STRUCTURE.

BI-DIRECTIONAL LET-DOWN STRUCTURE PLAN

Scale in Feet

0 20

TYPICAL FINAL COVER SECTION

(VARIOUS COVER ALTERNATIVES ARE BEING EVALUATED)

STATE OF TEXAS
DANIEL B. BULLOCK
82596
REGISTERED
PROFESSIONAL ENGINEER

Daniel B. Bullock
October 6, 2023

Coleto Creek Power, LLC

Conceptual Closure Design

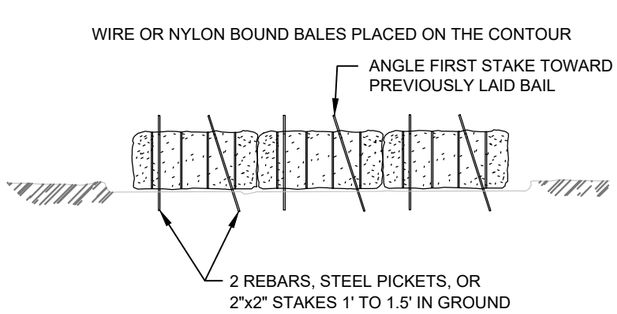
SHEET 6

SECTIONS AND DETAILS

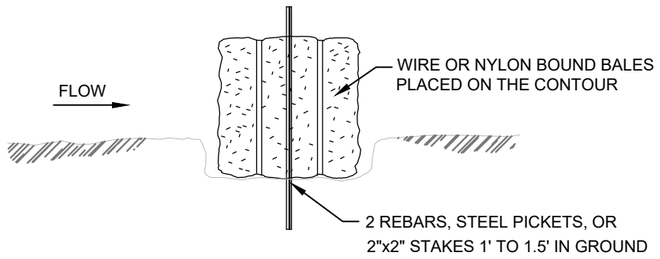
PROJECT: 23643-07	BY: RCAD-RR	DATE: OCT. 2023	CHECKED: DBB

Bullock, Bennett & Associates, LLC
Engineering and Geoscience
Texas Registrations: Engineering F-8542, Geoscience 50127

Plot Date: 10/06/23 - 8:44am, Plotted by: Admin
Drawing Path: K:\clients\bba\Coleto Ck\23643-07\, Drawing Name: C-LG-DT104.dwg



ANCHORING DETAIL

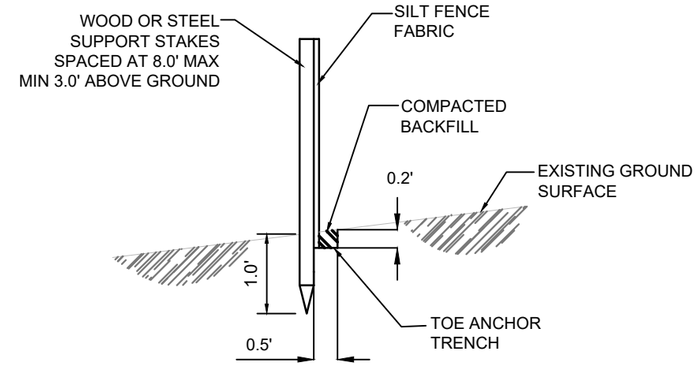


EMBEDDING DETAIL

NOTE:
EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 0.2 FEET. BALES SHALL BE SECURELY ANCHORED IN PLACE BY 3/8 INCH REBAR STAKES DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.

HAY BALE DIKE

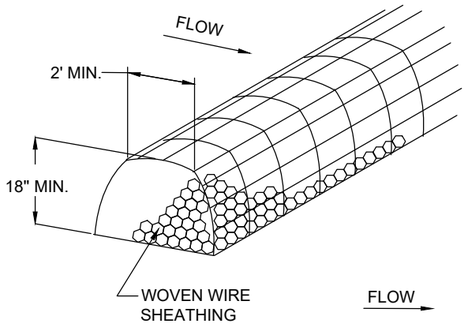
NOT TO SCALE



NOTE:
SILT FENCE SHALL BE INSTALLED AT A LEVEL GRADE TO THE EXTENT POSSIBLE. BOTH ENDS AT EACH FENCE SECTION MUST EXTEND AT LEAST 10.0' UPSLOPE AT AN ANGLE OF 45° TO THE MAIN FENCE ALIGNMENT. SILT FENCE SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 02135 - SEDIMENTATION AND EROSION CONTROL.

SILT FENCE

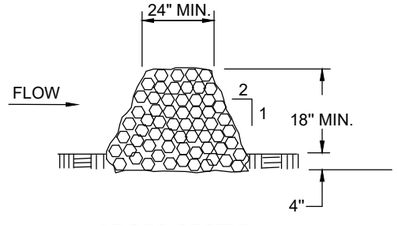
NOT TO SCALE



ROCK BERM

STANDARD SYMBOL FOR ROCK BERM (RB)

RB



CROSS SECTION

ROCK BERM

NOT TO SCALE

STATE OF TEXAS
DANIEL B. BULLOCK
82596
REGISTERED
PROFESSIONAL ENGINEER

Daniel B. Bullock
October 6, 2023

Coleto Creek Power, LLC
Conceptual Closure Design

SHEET 7

SWPPP DETAILS

PROJECT: 23643-07	BY: RCAD-RR	DATE: OCT 2023	CHECKED: DBB

Bullock, Bennett & Associates, LLC
Engineering and Geoscience
Texas Registrations: Engineering F-8542, Geoscience 50127

Plot Date: 10/06/23 - 8:45am, Plotted by: Admin
Drawing Path: K:\clients\bba\Coleto Ck\23643-07\, Drawing Name: C-LG-DT104.dwg

Attachment 4

Post-Closure Plan Addendum No. 1

Bullock, Bennett & Associates, LLC

www.bbaengineering.com
165 N. Lampasas St. • Bertram, Texas 78605 • Telephone (512) 355-9198, Fax (512) 355-9197

TECHNICAL MEMORANDUM

TO: Eric Chavers – Luminant
FROM: Dan Bullock, P.E. – BBA (TX PE No. 82596)
RE: Post-Closure Plan for Coleto Creek Primary Ash Pond – Addendum No. 1
DATE: October 6, 2023

This Addendum No. 1 to the Post-Closure Plan for the Coleto Creek Primary Ash Pond (PAP) at the Coleto Creek Power Station has been prepared to update the following post-closure plan sections (updated information provided in italics):

POST-CLOSURE PLAN FOR EXISTING CCR SURFACE IMPOUNDMENT §257.104(D)

SITE INFORMATION

Owner Name / Address: *Coleto Creek Power, LLC / 6555 Sierra Drive, Irving, TX 75039*

CONTACT INFORMATION

Contact Name: *Renee Collins*
Address: *6555 Sierra Drive, Irving, TX 75039*
Phone Number: *(214) 875-8382; 6555*
Email: renee.collins@luminant.com

POST-CLOSURE SCHEDULE

(c) Post-closure care period. (1) Except as provided by paragraph (c)(2) of this section, the owner or operator of the CCR unit must conduct post-closure care for 30 years.
(2) If at the end of the post-closure care period the owner or operator of the CCR unit is operating under assessment monitoring in accordance with § 257.95, the owner or operator must continue to conduct post-closure care until the owner or operator returns to detection monitoring in accordance with § 257.95.

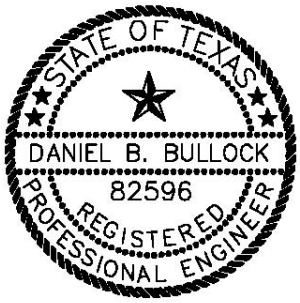
Note: The Primary Ash Pond is currently actively managing CCR wastes generated during operation of the coal-fired power plant. CCR waste is also actively removed from the Primary Ash Pond for off-site beneficial use. This practice is expected to continue after the pond no longer accepts CCR solids. The PAP will begin construction of closure by April 17, 2025, as indicated in the Coleto Creek Power Plant Alternative Closure Demonstration dated November 30, 2020.

Closure will be completed by October 17, 2028, in accordance with 40 C.F.R. § 257.103(f)(2)(iv)(B). Upon completion of closure, post-closure will begin and will continue for 30 years. If at the end of the post-closure care period the owner or operator of the CCR unit is operating under assessment monitoring in accordance with § 257.95, the owner or operator must continue to conduct post-closure care until the owner or operator returns to detection monitoring in accordance with § 257.95.

PROFESSIONAL CERTIFICATION

This document was prepared by Bullock, Bennett & Associates, LLC under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I hereby certify that this Addendum No. 1 to the Post-Closure Plan for the Coleto Creek Primary Ash Pond has been prepared in accordance with the requirements of *40 C.F.R. §257.104.*

Daniel B. Bullock, P.E. (TX 82596)



10/06/2023

Texas Commission on Environmental Quality

Registration Application for Coal Combustion Residuals (CCR) Waste Management

I. General Information

1. Reason for Submittal

Type of Registration Application

☐ New ☐ Major Amendment ☐ Minor Amendment

☒ Notice of Deficiency (NOD) Response ☐ Transfer ☐ Name Change

☐ Other

2. Application Fees

☒ $150 Application Fee

Payment Method

☐ Check ☒ Online through ePay portal <www3.tceq.texas.gov/epay/>

If paid online, enter ePay Trace Number: 582EA000467502

3. Facility Information

Facility information must match regulated entity information on the Core Data Form.

Applicant: ☐ Owner ☐ Operator ☒ Owner/Operator

Facility TCEQ Solid Waste Registration No: 31911

Facility EPA ID: TXD000836999

Regulated Entity Reference No. (if issued): RN100226919

Facility Name: COLETO CREEK POWER STATION

Facility (Area Code) Telephone Number: 361-788-5100

Facility physical street address (city, state, zip code, county): 45 FM 2987, FANNIN, TX, 77960, GOLIAD

Facility mailing address (city, state, zip code, county): 6555 Sierra Drive, Irving, TX 75039

Latitude (Degrees, Minutes Seconds): 28° 42’ 49”

Longitude (Degrees, Minutes Seconds): 97° 12’ 50”

4. Publicly Accessible Website

Provide the URL address of a publicly accessible website where the owner or operator of a CCR unit will post information.
https://www.luminant.com/ccr/

5. Facility Landowner(s) Information

Facility landowner(s) name: COLETO CREEK POWER, LLC

Facility landowner mailing address: 6555 Sierra Drive

City: Irving State: TX Zip Code: 75039

(Area Code) Telephone Number: 214-875-8338

Email Address (optional):

6. CCR Waste Management Unit(s)

☐ Landfill Unit(s) ☒ Surface Impoundment(s)

For each existing landfill, new landfill and lateral expansion, existing surface impoundment, and new surface impoundment and lateral expansion(s) provide information on type of waste, the registered unit(s) in which they are managed, and sampling and analytical methods.

Submit the following tables:

Table I.6. – CCR Waste Management Units;

Table I.6.A. – Waste Management Information;

Table I.6.B. – Waste Managed in Registered Units; and

Table I.6.C. – Sampling and Analytical Methods.

7. Description of Proposed Activities or Changes to Existing Facility

Provide a brief description of the proposed activities if application is for a new facility, or the proposed changes to an existing facility or registration conditions, if the application is for an amendment.

Coleto Creek Power, LLC operates the Coleto Creek Power Station located at 45 FM 2987 near the city of Fannin in Goliad County, Texas. The boiler uses coal as the primary fuel and fuel oil as a backup fuel to generate electricity. There are two streams of coal combustion residuals (CCR) generated at this plant. Bottom ash is collected from the boiler, combined with water, and transferred in slurry form for disposal in the facility's surface impoundment, referred to as Primary Ash Pond (PAP). Fly ash is collected from the boiler exhaust and transported pneumatically to two storage silos. From there, the fly ash is loaded into enclosed dry haul hoppers for off-site beneficial use. Off-spec fly ash is disposed in the PAP. Limited amounts of bottom ash in the surface impoundment are recovered for beneficial reuse via excavation, screening, and placement in covered dump trucks for transport off site.

8. Primary Contact Information

Contact Name: Renee Collins Title: Sr. Director Environmental Services

Contact mailing address: 6555 Sierra Drive
City: Irving County: Dallas State: TX Zip Code: 75039
(Area Code) Telephone Number: 214-875-8338

Email Address (optional):

9. Notice Publishing

Party responsible for publishing notice:
☒ Applicant ☐ Consultant ☐ Agent in Service

Contact Name: Renee Collins Title: Sr. Director, Environmental Services

Contact mailing address: 6555 Sierra Drive
City: Irving County: Dallas State: TX Zip Code: 75039
(Area Code) Telephone Number: 214-875-8338

10. Alternative Language Notice

Is an alternative language notice required for this application? For determination, refer to Alternative Language Checklist on the Public Notice Verification Form (TCEQ-20244-Waste-NORI).

☐ Yes ☒ No

11. Public Place Location of Application

Name of the Public Place: **Goliad Public Library**
Physical Address: **320 S. Commercial St**
City: **Goliad** County: **Goliad** State: **TX** Zip Code: **77963**
(Area code) Telephone Number: **361-645-2291**

12. Ownership Status of the Facility

☐ Corporation ☐ Limited Partnership
☐ Sole Proprietorship ☐ General Partnership ☒ Other (specify): Limited Liability Company

Does the Site Owner (Permittee/Registrant) own all the CCR units and all the facility property?

☒ Yes ☐ No

13. Property / Legal Description Information

Provide a legal description and supporting documents of the property where the management of CCR waste will occur; including a survey plat and a boundary metes and bounds description (30 TAC §352.231(g)).

Submit the following documents:

a. Property Legal Description
b. Property Metes and Bounds Description
c. Metes and Bounds Drawings
d. On-Site Easements Drawings

See APPENDIX A for Property/Legal Description Information and Property Owner Affidavit.

14. Operator Information

Identify the entity who will conduct facility operations, if the owner and operator are not the same.

Operator Name:

Operator mailing address:

City: State: Zip Code:

(Area Code) Telephone Number:

Email Address (optional):

15. Confidential Documents

Does the application contain confidential documents?

☐ Yes ☒ No

If "Yes", cross-reference the confidential documents throughout the application and submit as a separate attachment in a binder clearly marked "CONFIDENTIAL."

16. Permits and Construction Approvals

Permit or Approval	Received	Pending	Not Applicable
Hazardous Waste Management Program under the Texas Solid Waste Disposal Act	☒	☐	☐
Underground Injection Control Program under the Texas Injection Well Act	☐	☐	☒
National Pollutant Discharge Elimination System Program under the Clean Water Act and Waste Discharge Program under Texas Water Code, Chapter 26	☒	☐	☐
Prevention of Significant Deterioration Program under the Federal Clean Air Act (FCAA).	☒	☐	☐
National Emission Standards for Hazardous Air Pollutants Preconstruction Approval under the FCAA	☐	☐	☒
Other (describe):	☐	☐	☐

Other (describe):	☐	☐	☐
Other (describe)	☐	☐	☐

17. Legal Authority

The owner and operator of the facility shall submit verification of their legal status with the application. This shall be a one-page certificate of incorporation issued by the secretary of state. The owner or operator shall list all persons having over a 20% ownership in the facility.

See APPENDIX A for Certificate of Authority.

18. TCEQ Core Data Form

The TCEQ requires that a Core Data Form (TCEQ-10400) be submitted on all incoming applications, unless a Regulated Entity and Customer Reference Number has been issued by the TCEQ and no core data information has changed. For more information regarding the Core Data Form, call (512) 239-5175 or visit the TCEQ Website.

See APPENDIX A for TCEQ Core Data Form.

19. Other Governmental Entities Information

Coastal Management Program

Is the facility within the Coastal Management Program boundary?

☐ Yes ☒ No

Local Government Jurisdiction (If Applicable)
Within City Limits of: N/A
Within Extraterritorial Jurisdiction of: N/A

Is the facility located in an area in which the governing body of the municipality or county has prohibited the storage, processing or disposal of municipal or industrial solid waste?

☐ Yes ☒ No If "Yes", provide a copy of the ordinance or order as an attachment.

20. Attachments

Does the application include the following?

General Maps	☒ Yes	☐ No
General Topographic Map	☒ Yes	☐ No
Facility Layout Map	☒ Yes	☐ No
Surrounding Features Map	☒ Yes	☐ No
Process Flow Diagram	☒ Yes	☐ No
Land Ownership Map	☒ Yes	☐ No
Land Ownership List	☒ Yes	☐ No
Pre-printed Mailing Labels	☒ Yes	☐ No

Maps and drawings shall be legible and easily readable by eye without magnification. Scales and paper size shall be chosen based on the type of map submitted, the land area covered, and the amount of detail to be shown. See instructions for details regarding maps and drawings to be submitted in application.

See APPENDIX A for Attachments detailed in Item 20.

21. Verification of Compliance

Does the owner and operator verify that the design, construction, and operation of CCR landfill(s) and surface impoundment(s) meets the requirements of 30 TAC §352.231(f) (30 TAC §352.2; 40 CFR §257.52, and 40 CFR §§257.3-1 – 257.3-3).

☒ Yes ☐ No

As requested by TCEQ, please see "Compliance Assessment for Coleto Creek Power Station Primary Ash Pond – 40 CFR 257.52(b)" memorandum for Primary Ash Pond provided by BBA in APPENDIX A.

II. Location Restrictions and Geology

See Instructions and Technical Guidance

22. Location Restrictions

Submit certifications and technical reports demonstrating compliance of CCR unit(s) with applicable location restrictions (30 TAC 352, Subchapter E) and comply with 30 TAC §352.231(d) and 30 TAC §352.4 for submission of engineering and geoscientific information.

A. **Placement above the uppermost aquifer** (30 TAC §352.601) (40 CFR §257.60). For those CCR units whose base is less than five feet above the upper limit of the uppermost aquifer, please submit a copy of the demonstration showing evidence of compliance with 40 CFR §257.60(a) – (c).

B. **Wetlands** (30 TAC §352.611) (40 CFR §257.61). For CCR units located in wetlands, please submit a copy of the demonstration showing evidence of compliance with 40 CFR §257.61(a) – (c).

C. **Fault areas** (30 TAC §352.621) (40 CFR §257.62). For CCR units located within 200 feet of the outermost damage zone of a fault, please submit a copy of the demonstration showing evidence of compliance with 40 CFR §257.62(a) – (c).

D. **Seismic impact zones** (30 TAC §352.631) (40 CFR §257.63). For CCR units located in a seismic impact zone, please submit a copy of the demonstration showing evidence of compliance with 40 CFR §257.63(a) – (c).

E. **Unstable areas** (30 TAC §352.641) (40 CFR §257.64). For CCR units located in unstable areas, please submit a copy of the demonstration showing evidence of compliance with 40 CFR §257.64(a) – (d).

Location Restrictions Demonstration and Location Restrictions Assessment for the Primary Ash Pond located in APPENDIX B.

23. Geology Summary Report

Submit a summary of the geologic conditions at the facility, including the relation of the geologic condition to each CCR unit. The summary must include enough information and data and include sources and references for the information. Include all groundwater monitoring data required by 40 CFR Part 257, Subpart D, (30 TAC §352.241, §352.601, §352.621, §352.631, and §352.641) and submitted in accordance of 30 TAC §352.4.

Note: Previously prepared documents may be submitted but must be supplemented or updated as necessary to provide the requested information (30 TAC §352.241(b)).

For Geology Summary, please refer to "Groundwater Hydrogeologic Monitoring Plan" reports for the Primary Ash Pond located in APPENDIX E. The Geology and Hydrogeology summary is located in Section 2 of the report.

All groundwater monitoring data summarized in "2020 Annual Groundwater Monitoring and Corrective Action Report" for the Primary Ash Pond located in APPENDIX E

III. Fugitive Dust Control Plan

24. Fugitive Dust Control Plan

A. Submit a copy of the CCR Fugitive Dust Control Plan (30 TAC §352.801) (40 CFR §257.80(b)), or the most recently amended plan. The initial plan or subsequent amended plan must be certified by a qualified Texas licensed professional engineer (Texas P.E.) that the plan meets the requirements of 30 TAC Chapter 352.

B. Submit the most recent Annual CCR Fugitive Dust Control Report (30 TAC §352.801) (40 CFR §257.80(c)) and include the report information.

CCR Fugitive Dust Control Plan and 2021 Annual CCR Fugitive Dust Control Report are located in APPENDIX C.

IV. Landfill Criteria – N/A

See Instructions and Technical Guidance – No. 30 Coal Combustion Residuals Landfill

25. Landfill(s) for CCR Waste

Provide the following information below if there is a landfill; if there is more than one landfill, separate information is required for each landfill.

A. Landfill Characteristics

Describe the design, installation, construction, and operation of the landfill and submit a completed Table IV.A. – Landfill Characteristics.

B. Liner Design

1. For existing landfills, provide attachments describing how the facility will comply with 30 TAC 352, Subchapter F (Design Criteria).

2. For new landfills or lateral expansions of existing landfills, submit pages describing how the facility will comply with 30 TAC §352.261 and 30 TAC §352.701.
3. Complete Table IV.B. - Landfill Liner System and specify the type of liner used for the landfill.
4. Provide attachments describing the design, installation, and operation of the liner and leak detection system. The description must demonstrate that the liner and leak detection system will prevent discharge to the land, groundwater, and surface water. Submit a quality assurance project plan (QAPP) to ensure that each analysis is performed appropriately.

C. Leachate Collection and Removal

Submit design information and description of leachate collection and removal system in accordance with 30 TAC §352.701.

Complete Table IV.C. - Landfill Leachate Collection System

D. Design of Liner and Leachate Collection and Removal System.

For a new landfill or lateral expansion of a CCR landfill, provide a qualified Texas P.E. certification and technical report that the design of the liner and the leachate collection and removal system meets the requirements of 30 TAC §352.711.

E. Run-on and Run-off Controls

At time of application, attach pages describing how the facility will comply with the run-on and run-off system plan for an existing, new, or lateral expansion of a CCR landfill information. Provide a qualified Texas P.E. certification and technical report that the run-on and run-off control system plans meet the requirements of 30 TAC §352.811.

F. Inspection for Landfills

At time of application, attach pages describing how the facility will comply 30 TAC §352.841 and complete Table IV.D. – Inspection Schedule for Landfills. For existing CCR landfills, provide the most recent inspection report. All CCR landfills and any lateral expansions of a CCR landfill must be inspected for any structural weakness, malfunction, deterioration conditions which are disrupting or have the potential to disrupt the operation or safety of the CCR unit, or any other conditions which may cause harm to human health and environment at a frequency specified in 40 CFR §257.84(a) and (b).

V. Surface Impoundment Criteria

See Instructions and Technical Guidance – No. 31 Coal Combustion Residuals Surface Impoundment

26. Surface Impoundment(s) for CCR Waste

Provide the following information below if there is a surface impoundment; if there is more than one surface impoundment, separate information is required for each surface impoundment.

A. General Surface Impoundment(s) Characteristics

Provide information about the characteristics of the surface impoundment(s): incised, surface area (acres), storage volume (acres-feet), and depth (feet).

For all surface impoundment(s), include the following information:

1. Complete Table V.A. - Surface Impoundments Characteristics. List the surface impoundment(s) to be registered as a CCR unit(s), the wastes managed in each unit, and the rated capacity or size of each unit.

2. Describe the surface impoundment(s) and provide a plan view drawing with cross-sections, if available.

   See "History of Construction and Initial Hazard Potential Assessment, Structural Integrity Assessment, and Safety Factor Assessment" in APPENDIX D, section 2.3 for a summary description of the impoundment. For drawings, see Figures 2-4 and 2-5A.

3. Specify the minimum freeboard to be maintained and the basis of the design to prevent overtopping resulting from normal or abnormal operation; overfilling; wind and wave action; rainfall; run-on; malfunctions of level controllers, alarms, and other equipment; and human error. Show that adequate freeboard will be available to prevent overtopping from a 100-year, 24-hour storm.

   The "Inflow Design Flood Control System Plan" located in APPENDIX D indicates maximum elevation set at 136.1' to allow sufficient freeboard for design storm and wave action. See last paragraph of section 2.0.

4. Waste Flow
   Describe the means that will be used to immediately shut off the flow of waste to the impoundment in the event of liner failure or to prevent overtopping.

   All inflows that enter the surface impoundment are pumped into the unit under controlled conditions. There are no gravity or uncontrolled inflows. Pumps will be immediately removed from service to shut off flows to the impoundment.

5. Dike Construction ☒ Yes ☐ No

   If Yes, submit the dike certification (located at the end of the application).

   In October 2016, the initial certified Periodic Hazard Potential Classification Assessment, Periodic Structural Stability Assessment, and Periodic Safety Factor Assessment were completed for the Primary Ash Pond as required by 40 CFR 257.73(a), 257.73(d), and 257.73(e). In October 2021, the certified 5-Year Updates to these assessments were completed as required by 40 CFR 257.73 and 30 TAC 352.731, which identified no structural deficiencies. The most recent 2021 5-Year Assessment Updates are located in APPENDIX E. Based on the conclusion in the certified 5-year updates that no structural deficiencies exist, the facility is submitting these documents in lieu of the Dike Certification.

   The structural integrity of the dike system must be certified by a qualified Texas P.E. before the registration is issued. If the impoundment is not being used, the dike system must be certified before it can be put into use. The certification must be sealed by a qualified Texas P.E., along with the engineering firm's name and registration number (30 TAC §352.4).

   A report shall accompany the dike certification which summarizes the activities, calculations, and laboratory and field analyses performed in support of the dike certification. Describe the design basis used in construction of the dikes. A QAPP should be included in the report to ensure that each analysis is performed appropriately and include:

   (1) Slope Stability Analysis

   (2) Hydrostatic and Hydrodynamic Analysis

   (3) Storm Loading

   (4) Rapid Drawdown

Earthen dikes should have a protective cover to minimize wind and water erosion and to preserve the structural integrity of the dike. Describe the protective cover used and describe its installation and maintenance procedures.

B. Liner Design

For surface impoundment(s), provide information about how the facility will comply with 30 TAC §352.711 for existing CCR surface impoundments. For new and lateral expansion of CCR surface impoundments provide information on how the facility will comply with 30 TAC §352.261, and 30 TAC §352.721, see Instructions and Technical Guidance No. 31 Coal Combustion Residuals Surface Impoundment. The qualified Texas P.E. must certify that the design of the liner complies with the requirements of 30 TAC Chapter 352 and 40 CFR Part 257, Subpart D, where required.

Is the CCR surface impoundment unlined? ☒ Yes ☐ No

If "Yes", the CCR unit is subject to the closure requirements under 30 TAC Chapter 352 and 40 CFR §257.101(a) to retrofit or close. A notification must be prepared stating that an assessment of corrective measures has been initiated.

On November 30, 2020, Coleto Creek Power, LLC (CCP) submitted a request to the U.S. Environmental Protection Agency (EPA) for approval of a site-specific alternative deadline to initiate closure pursuant to 40 C.F.R. § 257.103(f)(2) for the Primary Ash Pond located at the Coleto Creek Power Plant near Fannin, Texas. CCP is requesting an extension pursuant to 40 C.F.R. § 257.103(f)(2) so that the Primary Ash Pond may continue to receive CCR and non-CCR wastestreams after April 11, 2021, and complete closure no later than October 17, 2028. On January 11, 2022, EPA issued a letter stating the site-specific alternative deadline demonstration was deemed complete thus tolling the cease receipt date until a final decision is issued on the demonstration. The "Coleto Creek CCR Surface Impoundment Demonstration for a Site-Specific Alternative to the Initiation of Closure" report submitted can be found in APPENDIX D.

1. Complete Table V.B. - Surface Impoundment Liner System for each surface impoundment to be registered.
2. Describe the design, installation and operation of liner and leak detection components. The description must demonstrate that the liner and leak detection system will prevent discharge to the land and surface water. Submit a QAPP report to ensure that each analysis is performed appropriately.

   See Section 2 in the "History of Construction and Initial Hazard Potential Assessment, Structural Integrity Assessment, and Safety Factor Assessment" report in APPENDIX D.
3. For new or laterally expansions of existing surface impoundments, provide a subsurface soil investigation report that must include:
   a. A description of all borings drilled, at the unit location, to test soils and characterize groundwater;
   b. A unit map drawn to scale showing the surveyed locations and elevations of the borings, including location of permanent identification markers ((30 TAC §352.731) and (40 CFR §257.73(a)(1));
   c. Cross-sections prepared from the borings depicting the generalized strata at the unit;
   d. Boring logs, including a description of materials encountered, and any discontinuities such as fractures, fissures, slickensides, lenses or seams;

e. A description of the geotechnical data and the geotechnical properties of the subsurface soil materials, including the suitability of the soils and strata for the intended uses; and

f. A demonstration that all geotechnical tests were performed in accordance with industry practices and recognized procedures.

C. Hazard Potential Classification

Provide the current hazard potential classification assessment and associated documentation, as required by 30 TAC §352.731 or §352.741 and 40 CFR §257.73(a)(2) or §257.74(a)(2). The qualified Texas P.E. must certify that the initial hazard potential classification and any subsequent periodic classification was conducted in accordance with the requirements of 30 TAC Chapter 352, where required.

Hazard Potential Classification: **LOW**

See "Hazard Potential Classification Assessment" located in APPENDIX D.

D. Emergency Action Plan for High or Significantly High Hazard Potential

Provide the current Emergency Action Plan that has been certified by a qualified Texas P.E. and includes the following requirements from 30 TAC 352, Subchapter F and 40 CFR §257.73(a)(3)(i)(A) - (E) or 40 CFR §257.74 (a)(3)(i)(A) - (E). The qualified Texas P.E. must certify that the written Emergency Action Plan and any subsequent amendment of the plan complies with the requirements of 30 TAC 352, Subchapter F, where required.

Complete Table V.J. - Inspection of Surface Impoundments

N/A

E. Inflow Design Flood Control System Plan

Describe how the surface impoundment(s) system will manage stormwater run-on away from the surface impoundment(s) (30 TAC §352.821 and 40 CFR §257.82(a) and (c)). Stormwater run-on must be diverted away from a surface impoundment, based on the hazard potential. Where dikes are used to divert run-on, they must be protected from erosion. Include all analyses used to calculate run-on volumes. Provide the inflow design flood control system plan. Provide qualified Texas P.E. certification that the initial and periodic inflow design flood control system plans meet the requirements of 30 TAC §352.821, where required.

See "Inflow Design Flood Control System Plan" located in APPENDIX D.

F. History of Construction for Existing CCR Surface Impoundment(s), or the Design and Construction Plans for New and Lateral Expansions

Provide information on the history of construction for each existing CCR surface impoundment (30 TAC §352.731 and 40 CFR §257.73(c)) or the design and construction plans for new and lateral expansions of each CCR surface impoundment (30 TAC §352.741) and (40 CFR §257.74(c)).

See "History of Construction" report located in APPENDIX D.

G. Structural Stability Assessment

Provide the most recent structural stability assessment of the surface impoundments. Include the combined capacity of all surface impoundment spillways with calculations; the peak discharge the unit must meet for all combined spillways; probable maximum flood-high hazard, 1,000-yr-significant high hazard, 100-yr-low hazard; identify if there were any structural stability deficiencies in last assessment; identify how these deficiencies were managed and corrected; and qualified Texas P.E. certification. The structural stability assessment must include all information required in 30 TAC §352.731 for existing surface impoundments or 30 TAC §352.741 for new or laterally expanding surface impoundments.

See "Structural Stability Assessment" located in APPENDIX D.

H. Safety Factor Assessment

The current safety factor assessment must be submitted with the application. It must include documentation that demonstrates whether the calculated factors of safety for each CCR surface impoundment achieve the minimum safety factors specified in 30 TAC 352, Subchapter F and 40 CFR §257.73(e)(1)(i) - (iv) and 40 CFR §257.74(e)(1)(i) - (iv) for the critical cross-section of the embankment. The critical cross-section is the cross-section anticipated to be the most susceptible to structural failure based on appropriate engineering considerations, including loading conditions. The safety factor assessments must be supported by appropriate engineering calculations and certified by a qualified Texas P.E.

See "Safety Factor Assessment" located in APPENDIX D.

VI. Groundwater Monitoring and Corrective Action (30 TAC 352, Subchapter H)

See Instructions and Technical Guidance – No. 32 Coal Combustion Residuals Groundwater Monitoring and Corrective Action

27. Groundwater Monitoring System

A. Complete Table VI.A. - Unit Groundwater Detection Monitoring System.

B. Provide a map showing location of wells, groundwater elevations, and groundwater flow direction.

See Figures 4 thru 7 in the "Groundwater Hydrogeologic Monitoring Plan" in APPENDIX E.

C. Provide attachments describing how the facility will comply with the requirements in 30 TAC §352.911 and provide a certification by a qualified Texas P.E or qualified Texas P.G. that the groundwater monitoring system design and construction meet the requirements of 30 TAC Chapter 352.

See Appendix A in the "Groundwater Hydrogeologic Monitoring Plan" located in APPENDIX E for the monitoring system certification. "Supplemental Geologic and Hydrogeologic Information Report No.2." is also included in APPENDIX E to supplement information in the "Groundwater Hydrogeologic Monitoring Plan".

D. Provide a figure showing the 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.

See Figures 2 and 3 in the "Groundwater Hydrogeologic Monitoring Plan" in APPENDIX E. For additional information see the "Supplemental Geologic and Hydrogeologic Information Report No.2" also in APPENDIX E.

E. For a multiunit groundwater monitoring system, demonstrate that the groundwater monitoring system will be equally as capable of detecting monitored constituents at the waste boundary of the CCR unit as the individual groundwater monitoring system for each CCR unit by providing at minimum the following information:

1. Number, spacing, and orientation of each CCR unit;
2. Hydrogeologic setting; and
3. Site history.

F. Has there been any sampling concentrations of one or more constituents listed in Appendix IV detected at statistically significant levels above the groundwater protection standard (GWPS)? ☐ Yes ☒ No

G. Provide information on how monitoring wells have been constructed and cased in a manner that maintains the integrity of the monitoring well borehole and to prevent contamination of samples and the groundwater.

Groundwater monitoring well construction logs are located in Appendix B of the "Groundwater Hydrogeologic Monitoring Plan" found in APPENDIX E.

28. Groundwater Monitoring Sampling and Analysis Program

Provide a sampling and analysis plan that includes procedures and techniques; sampling and analytical methods that are appropriate for groundwater sampling; and that address the requirements of 30 TAC §352.931 and 40 CFR §257.93. Provide a P.E or P.G. certification that describes the statistical method selected to evaluate the groundwater monitoring data and certifies that the selected statistical method is appropriate for evaluating the groundwater monitoring data for the CCR management area. Refer to TG-32 for information and guidance.

See "Groundwater Monitoring Plan-Revision 1", Background Groundwater Monitoring and Statistical Analysis Summary Report", "Statistical Analysis Plan-Revision 1", and "Statistical Method Certification" in APPENDIX E.

29. CCR Unit(s) in a Detection Monitoring Program

Does the facility have CCR unit(s) in a Detection Monitoring Program?

☐ Yes ☒ No

If "Yes", Submit the following information:

A. Submit Table VI.C. – Facility CCR Units Under Detection Monitoring.

B. Provide a Background Evaluation Report.

C. Provide a report with the results of semiannual monitoring events.

1. Has a statistically significant increase (SSI) been detected for one or more of the constituents listed in Appendix III at any monitoring well?

☐ Yes ☐ No

2. Has a notification to the executive director been sent within 14 days?

   ☐ Yes ☐ No

3. Date assessment monitoring program will start:

4. Do you plan to provide an alternative source demonstration (ASD)?

   ☐ Yes ☐ No

30. CCR Unit(s) in an Assessment Monitoring Program

Does the facility have CCR unit(s) in an Assessment Monitoring Program?

☒ Yes ☐ No
If "Yes", Submit information related for units.

A. Complete Table VI.D. – CCR Units Under Assessment Monitoring.

B. Provide, for each well in assessment monitoring status, the recorded concentrations lab sheets and results in a tabulated form.

See summary Tables 3 and 4 for all results in tabulated form in the "2020 Annual Groundwater Monitoring and Corrective Action Report" in APPENDIX E.

Have the concentrations of all constituents listed in Appendices III and IV been at or below background values, using the statistical procedures in 30 TAC §352.931 and 40 CFR §257.93(g), for two consecutive sampling events for the CCR unit(s)? ☐ Yes ☒ No

If answer to above is yes, detection monitoring may resume. The owner or operator must prepare a notification stating that detection monitoring is resuming for the CCR unit and obtain written approval from the executive director.

C. Are there any concentrations of any constituent in Appendices III and IV above background values? ☒ Yes ☐ No

1. Has a notification to the executive director been sent within 14 days?

   ☒ Yes ☐ No

D. Date assessment of corrective measures will be initiated (must be within **90 days** of finding a statistically significant level above the GWPS) for the CCR unit(s):
Not required due to no SSLs to date. Unit is in assessment monitoring but has not triggered assessment of corrective measure to date.

E. Will you provide an ASD (see TG-32 for an acceptable submittal)? ☐ Yes ☒ No

F. Date assessment of corrective measures will be initiated if ASD is not accepted?
Not required.

G. Complete Table VI.D-2. - Groundwater Detection Monitoring Parameters

Note: Refer to TG-32 regarding establishing a GWPS for each constituent in Appendix IV detected in the groundwater and attach as table.

H. Have you completed the assessment of corrective measures? ☐ Yes ☒ No
If "Yes", date assessment of corrective measures was completed:
If "No", date assessment of corrective measures will be completed: Not required
Expected date of submittal of amendment (see note below):
Provide completed assessment of corrected measures materials.

Note: Within **30 days** of completing the assessment of corrective measures, and before remedy implementation, the owner or operator shall submit an application for amendment to the registration. In some circumstances, the assessment of corrective measures and selected remedy may be approved as part of the initial application for the CCR unit registration.

I. Have you selected a remedy? ☐ Yes ☐ No N/A

Provide public meeting documentation under 30 TAC §352.961 and a report under 30 TAC §352.971 and 40 CFR §257.97.

VII. Closure and Post-Closure Care

See Instructions and Technical Guidance

Submit a full closure plan and post-closure plan and all information describing how the owner or operator will comply with 30 TAC 352, Subchapter J and 40 CFR §§257.100 - 257.104. The owner of property on which an existing disposal facility is located, following the closure of a unit, must also submit documentation that a notation has been placed in the deed to the facility that will in perpetuity notify any potential purchasers of the property that the land has been used to manage CCR wastes and its use is restricted (30 TAC §352.1221 and 40 CFR §257.102(i)). For CCR units, closed after October 19, 2015, that were closed before submission of the application, the applicant should submit documentation to show that notices required under 30 TAC 352, Subchapter K and 40 CFR §257.105 or §257.106 have been filed.

See "Closure Plan" and "Post-Closure Plan" in APPENDIX F. Also included in the appendix is "Closure Plan Addendum No.1" that was prepared to meet the requirements of the site-specific alternative deadline to initiate closure. "Closure Plan Addendum No.2" and "Post-Closure Plan Addendum No.1" are also in APPENDIX F.

On January 11, 2022, USEPA provided a determination that the alternative closure demonstration was complete thus tolling the waste receipt deadline for the CCR unit until USEPA issues a final decision. To date, no decision has been issued by USEPA regarding the Coleto Creek request for a site-specific alternative deadline to initiate closure. A copy of the completeness determination letter is located in APPENDIX F.

31. Closure Plan

This section applies to the owners and operators of all CCR units required to be registered. The applicant must close the facility in a manner that minimizes need for further maintenance and controls, or eliminates, to the extent necessary to protect human health and the environment, the post-closure release of CCR waste, chemical constituents of concern, leachate, contaminated rainfall, or waste decomposition products to the groundwater, surface waters, or to the atmosphere.

The type of unit to be closed can determine the level of detail sufficient for a closure plan. CCR units which have been certified closed after October 19, 2015, must provide documentation to demonstrate compliance with state and federal regulations.

For each unit to be registered, complete Table VII.A.1. - Unit Closure and list the CCR Unit components to be decontaminated, possible methods of decontamination, and possible methods of disposal of wastes and waste residues generated during unit closure. All ancillary components must be decontaminated, and the generated waste disposed of appropriately.

Information about CCR units closed or to be closed under alternative closure requirements must be provided in Table VII.A.2. - CCR Units Under Alternative Closure Notification.

Guidance on design of a closure cap and final cover for non-hazardous industrial solid wastes landfills is provided in EPA publication 530-SW-85-014, TCEQ Technical Guidance No. 3 and TCEQ publication, RG-534, "Guidance for Liner Construction and Testing for a Municipal Solid Waste Landfill".

32. Post-Closure Care Plan

Provide a post-closure care plan that complies with the requirements of 30 TAC §352.1241.

See "Post-Closure Plan" and "Post-Closure Plan Addendum No.1" in APPENDIX F.

Post-closure care of each CCR unit must continue for at least 30 years after the date of completing closure of the unit and must consist of monitoring and reporting of the groundwater monitoring systems, in addition to the maintenance and monitoring of CCR unit. Continuation of certain security requirements may be necessary after the date of closure. Post-closure use of property on or in which waste remains after closure must never be allowed to disrupt the integrity of the containment system. In addition, submit the following information:

- The name, address, and phone number of the person or office to contact about the CCR unit during the post-closure period; and

  Luminant-Environmental Services
  Renee Collins-Senior Environmental Director
  6555 Sierra Drive
  Irving, TX 75039
  214-875-8338
  CCRPostClosurePlan@Luminant.com

- A discussion of the future use of the land associated with each unit.

  Following closure of the Primary Ash Pond, a notation on the deed to the property, or some other instrument that is normally examined during title search, will be recorded in accordance with 40 CFR 257.102(i). The notation will notify potential purchasers of the property that the land has been used as a CCR unit and its use is restricted under the post-closure care requirements per 40 CFR 257.104(d)(1)(iii).

Landfills and surface impoundments which have been certified closed after October 19, 2015, must be included in post-closure care plans, unless they have been determined to have been closed by waste removal equivalent to the closure standards in 30 TAC §352.1221 and 40 CFR §257.102 or 30 TAC §352.1231 and 40 CFR §257.103. If such a demonstration has been made pursuant to 40 CFR §257.102 or §257.103, but an equivalency determination has not been made, please submit a copy of the demonstration documentation. If an equivalency determination has been made, applicant should submit a copy of this determination.

VIII. Financial Assurance

33. Post-Closure Care Cost Estimate

Financial assurance for post-closure care (30 TAC §352.1101) applies to owners or operators of all CCR units, except CCR units from which the owner or operator intends to remove wastes and perform clean closure. Provide a written cost estimate in current dollars of the total cost of the 30-year (or longer, if applicable under 30 TAC §352.1101(d)) post-closure care period to perform post-closure care requirements as prescribed in 30 TAC §352.1241. The cost estimate must be based on the costs of hiring a third party to conduct post-closure care maintenance.

Complete Table VIII.A.1 – Post-Closure Cost Summary for Existing Registered Units

See Post-Closure Care Cost Estimate in APPENDIX G. Cost estimates for the Primary Ash Pond are summarized in Table 1.

Complete Table VIII.A.2. - Post-Closure Cost Summary for Proposed Registered Units

34. Financial Assurance Mechanism

The financial assurance for post-closure care is required in accordance with 30 TAC §352.1101. The applicant shall demonstrate the financial assurance within 90 days after approval of the registration with a financial mechanism acceptable to TCEQ in compliance with 30 TAC §352.1101(c) and 30 TAC §37, Subchapters A through D, except as indicated in 30 TAC §352.1111, in an amount no less than the amount specified in the approved Post-Closure Care Cost Summary. Provide a description of the proposed financial assurance mechanism.

Luminant Generation Company LLC will provide an acceptable financial assurance mechanism per 30 TAC 352.1101 no more than 90 days after the executive director's approval of the registration.

Complete Table VIII.B. - Post-Closure Period, for the authorized post-closure period, to meet the requirements of 30 TAC §352.1241(a) through (c).

Signature Page

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Applicant Signature: _____ Date: _____

Name and Official Title (type or print): _____

Owner or Operator Signature: _____ Date: _____

Name and Official Title (type or print): _____

To be completed by the owner or operator if the application is signed by an authorized representative for the operator

I, _____ hereby designate _____
(operator) (authorized representative)

as my representative and hereby authorize said representative to sign any application, submit additional information as may be requested by the Commission; and/or appear for me at any hearing or before the Texas Commission on Environmental Quality in conjunction with this request for a CCR waste management registration. I further understand that I am responsible for the contents of this application, for oral statements given by my authorized representative in support of the application, and for compliance with the terms and conditions of any registration which might be issued based upon this application.

_____
Printed or Typed Name of Applicant or Principal Executive Officer

_____
Signature

(Note: Application Must Bear Signature & Seal of Notary Public)

Subscribed and sworn to before me by the said _____ on this

_____ day of _____, _____.

My commission expires on the _____ day of _____, _____

(Seal) Notary Public in and for _____ County, Texas

Registration Application for Coal Combustion Residuals Waste Management

(See instructions for P.E/P.G. seal requirements.)

Attachments and Tables	**Attachment No.**
General Information	Appendix A
Property/Legal Description	
Property Owner Affidavit	
Legal Authority	
Delegation of Signature Authority	
TCEQ Core Data Form	
Attachments	
Compliance Assessment for Coleto Creek Power Station Primary Ash Pond – 40 CFR 257.52(b)	
Location Restrictions & Geology	Appendix B
Location Restrictions Demonstration	
Location Restrictions Assessment	
Fugitive Dust Control Plan	Appendix C
CCR Fugitive Dust Control Plan	
2021 Annual CCR Fugitive Dust Control Report	
Surface Impoundment Design and Operating Criteria	Appendix D
Alternative Closure Plan Demonstration – §257.103(f)(2)	
Hazard Potential Classification Assessment	
Inflow Design Flood Control Plan	
History of Construction Report	
Structural Stability Assessment	
Safety Factor Assessment	
Groundwater Monitoring and Corrective Action	Appendix E
Groundwater Hydrogeologic Monitoring Plan	
Supplemental Geologic and Hydrogeologic Information	
Supplemental Geologic and Hydrogeologic Information Report No.2	
Groundwater Monitoring Plan-Revision 1	
Background Groundwater Monitoring and Statistical Analysis Summary Report	
Statistical Analysis Plan-Revision 1	
Statistical Method Certification	
2020 Groundwater Monitoring and Corrective Action Report	
2021 Groundwater Monitoring and Corrective Action Report-Revision 1	
Closure and Post-Closure Care	Appendix F
Closure Plan	
Closure Plan Addendum No.1	
Closure Plan Addendum No.2	
Alternative Closure Demonstration Completeness Determination Letter	
Post-Closure Plan	
Post-Closure Addendum No.1	
Financial Assurance	Appendix G
Post-Closure Care Cost Estimate	

Tables

Tables	Submitted	Not Applicable
Table I.6. - CCR Waste Management Units	☒	☐
Table I.6.A. - Waste Management Information	☒	☐
Table I.6.B. - Wastes Managed in Registered Units	☒	☐
Table I.6.C. - Sampling and Analytical Methods	☒	☐
Table IV.A. - Landfill Characteristics	☐	☒
Table IV.B. - Landfill Liner System	☐	☒
Table IV.C. - Landfill Leachate Collection System	☐	☒
Table IV.D. - Inspection Schedule of Landfills	☐	☒
Table V.A. - Surface Impoundments Characteristics	☒	☐
Table V.B. - Surface Impoundment Liner System	☒	☐
Table V.J. - Inspection of Surface Impoundments	☒	☐
Table VI.A. - Unit Groundwater Detection Monitoring System	☐	☐
Table VI.C. - CCR Units Under Detection Monitoring	☐	☒
Table VI.C-1. – Groundwater Detection Monitoring Parameters	☒	☐
Table VI.D. - CCR Units Under Assessment Monitoring	☒	☐
Table VI.D-2. - Groundwater Assessment Monitoring Parameters	☒	☐
Table VII.A.1. - Unit Closure	☒	☐
Table VII.A.2. - CCR Units Under Alternative Closure Notification	☒	☐
Table VIII.A.1. - Post-Closure Cost Summary for Existing Registered Units	☒	☐
Table VIII.A.2. - Post-Closure Cost Summary for Proposed Registered Units	☐	☒
Table VIII.B. - Post-Closure Period	☐	☒
Engineering Certification(s) - Dike Construction	☐	☒

Additional Attachments as Applicable - Select all those apply and add as necessary

☒ TCEQ Core Data Form(s) **Appendix A**
☒ Signatory Authority Delegation **Appendix A**
☐ Fee Payment Receipt
☐ Confidential Documents
☒ Certificate of Fact (Certificate of Incorporation) **Appendix A**
☐ Assumed Name Certificate

Table I.6. – CCR Waste Management Units

CCR Unit No.[1]	Unit Name	N.O.R. No.[1]	Unit Description[3]	Capacity	Unit Status[2]
001	Primary Ash Pond	001	Surface Impoundment	2,700 acre-feet	Active

1 Registered Unit No. and N.O.R. No. cannot be reassigned to new units or used more than once.
2 Unit Status options: Active, Closed, Inactive (built but not managing waste), Proposed (not yet built), Never Built, Transferred, Post-Closure.
3 If a unit has been transferred, the applicant should indicate which facility/permit it has been transferred to in the Unit Description column.

Table I.6.A. – Waste Management Information

Waste No.[1]	Waste Type(s)	Source	Volume (tons/year)
1	Fly Ash	Coal Combustion Byproduct	57,000 produced 425 disposed
2	Bottom Ash	Coal Combustion Byproduct	13,000 produced 400 disposed

1 Assign waste number sequentially. Do not remove waste number wastes which are no longer generated.

Table I.6.B. – Wastes Managed in Registered Units

Waste No.[1]	Waste	TCEQ Waste Form Codes and Classification Codes
1	Fly Ash	TWC-20173192, TX Form Code-319, Class 2
2	Bottom Ash	TWC-20183192, TX Form Code-319, Class 2

1 from Table I.6.A., first column

Table I.6.C – Sampling and Analytical Methods

Waste No.[1]	Sampling Location	Sampling Method	Frequency	Parameter	Test Method	Desired Accuracy Level
1	Fly Ash	Grab	<5 years	TCLP Metals	SW1311/7470A SW1311/6020B	See below [2]
2	Bottom Ash	Grab	<5 years	TCLP Metals	SW1311/7470A SW1311/6020B	See below [2]

1 from Table I.6.A., first column

2 Analytical protocol will meet EPA quality control and accuracy specifications as published in the SW-846 Methods. The laboratory will be TCEQ accredited.

Table IV.A. – Landfills Characteristics

Registered Unit No.	Landfill	N.O.R. No.	Waste Nos.[1]	Rated Capacity	Dimensions[2]	Distance from lowest liner to groundwater	Action Leakage Rate (if required)	Unit will manage CCR Waste and non-CCR Waste (state all that apply)
N/A								

1 From Table I.6.A., first column
2 Dimensions should be provided as average length, width and depth, also include the surface acreage for the unit.

Table IV.B. – Landfill Liner System

Registered Unit No.*	Landfill	Geomembrane Liner Material	Geomembrane Liner Permeability (cm/sec)	Geomembrane Liner Thickness	Soil Liner Material	Soil Liner Permeability (cm/sec)	Soil Liner Thickness
N/A							

* This number should match the Registration Unit No. given on Table IV.A.

Table IV.C. – Landfill Leachate Collection System

Registered Unit No.	Landfill Name	Drainage Media	Collection Pipes (including risers)	Filter Fabric	Geofabric	Sump Material
N/A						

Table IV.D. – Inspection Schedule of Landfills

Facility Unit(s) and Basic Elements	Possible Error, Malfunction, or Deterioration	Frequency of Inspection
N/A		

Table V.A. – Surface Impoundment Characteristics

Registered Unit No.	Surface Impoundment Name	N.O.R. No.	Waste Nos.[1]	Rated Capacity	Dimensions[2]	Distance from lowest liner to groundwater	Action Leakage Rate (if required)	Unit will manage CCR Waste and non-CCR Waste (state all that apply)
001	Primary Ash Pond	001	1, 2	2,700 acre-feet	2,450 feet W x 3,375 feet L x 20 feet D 190 acres	>5 Feet	n/a	Fly Ash, Bottom Ash

1 From Table I.6.A., first column
2 Dimensions should be provided as average length, width and depth, also include the surface acreage for the unit.

Table V.B. – Surface Impoundment Liner System

Registered Unit No.*	Surface Impoundment Name	Geomembrane Liner Material	Geomembrane Liner Permeability (cm/sec)	Geomembrane Liner Thickness	Soil Liner Material	Soil Liner Permeability (cm/sec)	Soil Liner Thickness
001	Primary Ash Pond	None	None	None	In-situ clay	$<1.0 \times 10^{-7}$ cm/sec	Avg 9 feet, ranges 4 feet to 20 feet

* This number should match the Registration Unit No. given on Table V.A.

Table V.J. – Inspection Schedule of Surface Impoundments

Facility Unit(s) and Basic Elements	Possible Error, Malfunction, or Deterioration	Frequency of Inspection
001-Primary Ash Pond		Weekly inspections are performed at intervals not exceeding seven days per 40 CFR 257.83(a)
Above-grade piping	Deteriorating of piping/connections	Weekly inspections are performed at intervals not exceeding seven days per 40 CFR 257.83(a)
Truck Access Ramp	Spills, Deterioration	Weekly inspections are performed at intervals not exceeding seven days per 40 CFR 257.83(a), spills inspected and reported within 24-hrs
Containment Dike	Spills, excessive water levels, surface cracking, animal burrows, misalignments, slides, vegetative cover, rutting, erosion, seepage, slope protection/chutes	Weekly inspections are performed at intervals not exceeding seven days per 40 CFR 257.83(a), spills inspected and reported within 24-hrs
Instrumentation	Monitor water level	Unit instrumentation (water level gauge) is inspected and monitored at intervals not exceeding 30 days per 40 CFR 257.83(a)(1)(iii).
Groundwater	Deterioration of pads, bollards, missing locks, compromise of casing integrity	Semi-Annual Inspection
001-Primary Ash Pond		Annually per 40 CFR 257.83(b)
	Inspect for any changes in geometry of the structure since the previous annual inspection.	Annual Inspection
	Evaluate the approximate minimum, maximum, and present depth and elevation of the impounded water and CCR since previous annual inspection.	Annual Inspection
	Evaluate the storage capacity at the time of the inspection.	Annual Inspection
	Estimate the approximate volume of the impounded water and CCR contained in the unit at the time of the inspection.	Annual Inspection
	Inspect for any other change(s) which have affected the stability or operation of the CCR unit since the previous inspection	Annual Inspection

Table VI.A. - Unit Groundwater Detection Monitoring Systems

Waste Management Unit/Area Name[1]	**WMU 001 - Primary Ash Pond**								
Well Number(s):	MW-4	MW-5	MW-6	MW-8	MW-9	MW-10	MW-11	BV-5	BV-21
Hydrogeologic Unit Monitored	Houston Group	Houston Group	Houston Group	Houston Group	Houston Group	Houston Group	Houston Group	Houston Group	Houston Group
Type (e.g., point of compliance, background, observation, etc.)	POC	POC	POC	POC	POC	POC	POC	POC	POC
Up or Down Gradient	Down	Down	Down	Up	Down	Down	Down	B?	Up
Casing Diameter and Material	4" PVC	4" PVC	4" PVC	4" PVC	2" PVC	2" PVC	2" PVC	2" PVC	2" PVC
Screen Diameter and Material	4" PVC	4" PVC	4" PVC	4" PVC	2" PVC	2" PVC	2" PVC	2" PVC	2" PVC
Screen Slot Size (in.)	0.016"	0.016"	0.016"	0.016"	0.010"	0.010"	0.010"	0.010"	0.010"
Top of Casing Elevation (Ft, Mean Sea Level *[MSL]*)	137.71	122.31	119.22	134.72	132.3	130.4	118.66	135.8	131.17
Grade or Surface Elevation (Ft, MSL)	134.3	119.57	116.35	131.78	129.3	127.6	115.8	133	128.4
Well Depth (Ft, Below Grade Surface *[BGS]*)	70.1	59.27	61.15	56.88	60	60	49	40	40
Well Depth (Ft, Below Top of Casing *[BTOC]*)	73.51	62.01	64.02	59.82	63	62.8	51.86	42.8	42.77
Screen Interval									
From (Ft, BGS)	50.5	39.47	41.25	36.98	40	40	29	30	30
To (Ft, BGS)	70.1	59.27	61.15	56.88	60	60	49	40	40
Screen Interval									
From (Ft, BTOC)	53.91	42.21	44.12	39.92	43	42.8	31.86	32.8	32.77
To (Ft, BTOC)	73.51	62.01	64.02	59.82	63	62.8	51.86	42.8	42.77

1 From Tables in Section I.; *MSL* : Mean Sea Level; *BGS* : Below Grade Surface; *BTOC* : Below Top of Casing

NOTE-Data from Table 3 from Groundwater Hydrogeologic Monitoring Plan 10/17/2017

Table VI.C. – CCR Units Under Detection Monitoring

N.O.R. Unit No.	Unit Description[1,2]	Well(s)	Constituent(s)	Date of SSI Determination	Date of Assessment Monitoring Notification[3]
N/A					

1 Indicates a unit for which a 30 TAC Chapter 352/40 CFR Part 257, Subpart D alternative closure determination has been requested pursuant to 40 CFR §257.103.
2 Indicates a unit for which a 30 TAC Chapter 352/40 CFR Part 257, Subpart D alternative closure determination has been made pursuant to 40 CFR §257.103.
3 Enter month, day, and year.

Table VI.C-1. – Groundwater Detection Monitoring Parameters

Parameter	Sampling Frequency	Analytical Method	Practical Quantification Limit (units)	Concentration Limit[1]
Boron	Semi-Annual	SW6020A	0.0100 mg/L	1.3
Calcium	Semi-Annual	SW6020A	0.10 mg/L	140
Chloride	Semi-Annual	E300	0.30 mg/L	120
Fluoride	Semi-Annual	E300	0.100 mg/L	0.61
Sulfate	Semi-Annual	E300	1.00 mg/L	150
Total Dissolved Solids	Semi-Annual	M2540C	10.0 mg/L	970
pH	Semi-Annual	Field Measured	s.u.	6.5 7.3

[1] The concentration limit is the basis for determining whether a release has occurred from the CCR unit/area.

Table VI.D. – CCR Units Under Assessment Monitoring

N.O.R. Unit No.	Unit Description[1,2]	Well(s)	Constituent(s)	Date of SSI Determination	Date of Assessment Monitoring Notification[3]
001	Primary Ash Pond	MW-6, MW-9, MW-10	B	2/12/2018	Notification made 5/9/18
001	Primary Ash Pond	MW-4, MW-5, MW-6, MW-9, MW-10, MW-11	Cl, F, SO4, pH	2/12/2018	ASD Successful for all constituents except Boron (4/11/18)

1 Indicates a unit for which a 30 TAC Chapter 352/40 CFR Part 257, Subpart D alternative closure determination has been requested pursuant to 40 CFR §257.103.
2 Indicates a unit for which a 30 TAC Chapter 352/40 CFR Part 257, Subpart D alternative closure determination has been made pursuant to 40 CFR §257.103.
3 Enter month, day, and year

Table VI.D-2. – Groundwater Assessment Monitoring Parameters

Parameter	Sampling Frequency	Analytical Method	Practical Quantification Limit (units)	Concentration Limit[1]
Antimony	Semi-Annual	SW6020B	0.000800 mg/L	0.0060 mg/L
Arsenic	Semi-Annual	SW6020B	0.00200 mg/L	0.13 mg/L
Barium	Semi-Annual	SW6020B	0.00300 mg/L	2.0 mg/L
Beryllium	Semi-Annual	SW6020B	0.000300 mg/L	0.0040 mg/L
Cadmium	Semi-Annual	SW6020B	0.000300 mg/L	0.0050 mg/L
Chromium	Semi-Annual	SW6020B	0.00200 mg/L	0.10 mg/L
Cobalt	Semi-Annual	SW6020B	0.00300 mg/L	0.050 mg/L
Fluoride	Semi-Annual	SW6020B	0.100 mg/L	4.0 mg/L
Lead	Semi-Annual	SW6020B	0.000300 mg/L	0.015 mg/L
Lithium	Semi-Annual	SW6020B	0.00500 mg/L	0.040 mg/L
Mercury	Semi-Annual	SW7470A	0.0000800 mg/L	0.0020 mg/L
Molybdenum	Semi-Annual	SW6020B	0.00200 mg/L	0.10 mg/L
Selenium	Semi-Annual	SW6020B	0.00200 mg/L	0.050 mg/L
Thallium	Semi-Annual	SW6020B	0.000500 mg/L	0.0020 mg/L
Radium 226+228	Semi-Annual	904 + SM7500Ra B M	varies	5.0 pCi/L

1 The concentration limit is the basis for determining whether a release has occurred from the CCR unit/area.

Table VII.A.1. – Unit Closure

For each unit to be registered, list the unit components to be decontaminated, the possible methods of decontamination, and the possible methods of disposal of wastes and waste residues generated during unit closure.

Equipment or CCR Unit	Possible Methods of Decontamination[1]	Possible Methods of Disposal[1]
001-Primary Ash Pond Piping	Removal	Landfill
001-Primary Ash Pond	Close in Place	No Disposal

1 Applicants may list more than one appropriate method.

Table VII.A.2. – CCR Units Under Alternative Closure Notification

Registered Unit No.	N.O.R. Unit No.	Unit Description[1,2]	Date of Receipt of Last Waste[3]	Date of Closure Notification[3]
001	001	Surface Impoundment	7/17/2027	11/30/2020

1 Indicates a unit for which a 30 TAC Chapter 352/40 CFR Part 257, Subpart D alternative closure determination has been requested pursuant to 40 CFR §257.103.
2 Indicates a unit for which a 30 TAC Chapter 352/40 CFR Part 257, Subpart D alternative closure determination has been made pursuant to 40 CFR §257.103.
3 Enter month, day, and year.

Table VIII.A.1. – Post-Closure Cost Summary for Existing Registered Units

Unit	Cost
001-Primary Ash Pond	$3,117,987
Total Existing Unit Post-Closure Cost Estimate	$3,117,987 (in 2021 Dollars)[1]

Table VIII.A.2. - Post-Closure Cost Summary for Proposed Registered Units

Unit	Cost

1 As units are added or deleted from these tables through future registration amendments, the remaining itemized unit costs should be updated for inflation when re-calculating the revised total cost in current dollars.

Table VIII.B. – Post-Closure Period

Unit Name	Date Certified Closed	Authorized Post-Closure Period (Yrs.)	Earliest Date Post-Closure Ends (See Note 1)
[Unit Example 1]	**[1/1/1995]**	30 years	**[1/1/2025]**
[Unit Example 2]	**[1/1/1990]**	30 years	**[1/1/2020]**
[Unit Example 3]	**[1/1/1984]**	30 years	**[1/1/2014]**

Note 1 – Post-Closure Care shall continue beyond the specified date until the Executive Director has approved the applicant's request to reduce or terminate the post-closure period, consistent with 30 TAC §352.1241 – Post-Closure Care Requirements.

N/A

Texas Commission on Environmental Quality

Registration Application for Coal Combustion Residuals (CCR) Waste Management

I. General Information

1. Reason for Submittal

Type of Registration Application

☐ New ☐ Major Amendment ☐ Minor Amendment

☒ Notice of Deficiency (NOD) Response ☐ Transfer ☐ Name Change

☐ Other

2. Application Fees

☒ $150 Application Fee

Payment Method

☐ Check ☒ Online through ePay portal <www3.tceq.texas.gov/epay/>

If paid online, enter ePay Trace Number: 582EA000467502

3. Facility Information

Facility information must match regulated entity information on the Core Data Form.

Applicant: ☐ Owner ☐ Operator ☒ Owner/Operator

Facility TCEQ Solid Waste Registration No: 31911

Facility EPA ID: TXD000836999

Regulated Entity Reference No. (if issued): RN100226919

Facility Name: COLETO CREEK POWER STATION

Facility (Area Code) Telephone Number: 361-788-5100

Facility physical street address (city, state, zip code, county): 45 FM 2987, FANNIN, TX, 77960, GOLIAD

Facility mailing address (city, state, zip code, county): 6555 Sierra Drive, Irving, TX 75039

Latitude (Degrees, Minutes Seconds): 28° 42’ 49”

Longitude (Degrees, Minutes Seconds): 97° 12’ 50”

4. Publicly Accessible Website

Provide the URL address of a publicly accessible website where the owner or operator of a CCR unit will post information.
https://www.luminant.com/ccr/

5. Facility Landowner(s) Information

Facility landowner(s) name: COLETO CREEK POWER, LLC

Facility landowner mailing address: 6555 Sierra Drive

City: Irving State: TX Zip Code: 75039

(Area Code) Telephone Number: 214-875-8338

Email Address (optional):

6. CCR Waste Management Unit(s)

☐ Landfill Unit(s) ☒ Surface Impoundment(s)

For each existing landfill, new landfill and lateral expansion, existing surface impoundment, and new surface impoundment and lateral expansion(s) provide information on type of waste, the registered unit(s) in which they are managed, and sampling and analytical methods.

Submit the following tables:

Table I.6. – CCR Waste Management Units;

Table I.6.A. – Waste Management Information;

Table I.6.B. – Waste Managed in Registered Units; and

Table I.6.C. – Sampling and Analytical Methods.

7. Description of Proposed Activities or Changes to Existing Facility

Provide a brief description of the proposed activities if application is for a new facility, or the proposed changes to an existing facility or registration conditions, if the application is for an amendment.

Coleto Creek Power, LLC operates the Coleto Creek Power Station located at 45 FM 2987 near the city of Fannin in Goliad County, Texas. The boiler uses coal as the primary fuel and fuel oil as a backup fuel to generate electricity. There are two streams of coal combustion residuals (CCR) generated at this plant. Bottom ash is collected from the boiler, combined with water, and transferred in slurry form for disposal in the facility's surface impoundment, referred to as Primary Ash Pond (PAP). Fly ash is collected from the boiler exhaust and transported pneumatically to two storage silos. From there, the fly ash is loaded into enclosed dry haul hoppers for off-site beneficial use. Off-spec fly ash is ~~currently combined with water and pumped to the facility's surface impoundment for disposal~~ disposed in the PAP. Limited amounts of bottom ash in the surface impoundment is recovered for beneficial reuse via excavation, screening, and placement in covered dump trucks for transport off site.

8. Primary Contact Information

Contact Name: Renee Collins Title: Sr. Director Environmental Services

Contact mailing address: 6555 Sierra Drive
City: Irving County: Dallas State: TX Zip Code: 75039
(Area Code) Telephone Number: 214-875-8338

Email Address (optional):

9. Notice Publishing

Party responsible for publishing notice:
☒ Applicant ☐ Consultant ☐ Agent in Service

Contact Name: Renee Collins Title: Sr. Director, Environmental Services

Contact mailing address: 6555 Sierra Drive
City: Irving County: Dallas State: TX Zip Code: 75039
(Area Code) Telephone Number: 214-875-8338

10. Alternative Language Notice

Is an alternative language notice required for this application? For determination, refer to Alternative Language Checklist on the Public Notice Verification Form (TCEQ-20244-Waste-NORI).

☐ Yes ☒ No

11. Public Place Location of Application

Name of the Public Place: **Goliad Public Library**
Physical Address: **320 S. Commercial St**
City: **Goliad** County: **Goliad** State: **TX** Zip Code: **77963**
(Area code) Telephone Number: **361-645-2291**

12. Ownership Status of the Facility

☐ Corporation ☐ Limited Partnership
☐ Sole Proprietorship ☐ General Partnership ☒ Other (specify): Limited Liability Company

Does the Site Owner (Permittee/Registrant) own all the CCR units and all the facility property?

☒ Yes ☐ No

13. Property / Legal Description Information

Provide a legal description and supporting documents of the property where the management of CCR waste will occur; including a survey plat and a boundary metes and bounds description (30 TAC §352.231(g)).

Submit the following documents:

a. Property Legal Description
b. Property Metes and Bounds Description
c. Metes and Bounds Drawings
d. On-Site Easements Drawings

See APPENDIX A for Property/Legal Description Information and Property Owner Affidavit.

14. Operator Information

Identify the entity who will conduct facility operations, if the owner and operator are not the same.

Operator Name:

Operator mailing address:

City: State: Zip Code:

(Area Code) Telephone Number:

Email Address (optional):

15. Confidential Documents

Does the application contain confidential documents?

☐ Yes ☒ No

If "Yes", cross-reference the confidential documents throughout the application and submit as a separate attachment in a binder clearly marked "CONFIDENTIAL."

16. Permits and Construction Approvals

Permit or Approval	Received	Pending	Not Applicable
Hazardous Waste Management Program under the Texas Solid Waste Disposal Act	☒	☐	☐
Underground Injection Control Program under the Texas Injection Well Act	☐	☐	☒
National Pollutant Discharge Elimination System Program under the Clean Water Act and Waste Discharge Program under Texas Water Code, Chapter 26	☒	☐	☐
Prevention of Significant Deterioration Program under the Federal Clean Air Act (FCAA).	☒	☐	☐
National Emission Standards for Hazardous Air Pollutants Preconstruction Approval under the FCAA	☐	☐	☒
Other (describe):	☐	☐	☐

Other (describe):	☐	☐	☐
Other (describe)	☐	☐	☐

17. Legal Authority

The owner and operator of the facility shall submit verification of their legal status with the application. This shall be a one-page certificate of incorporation issued by the secretary of state. The owner or operator shall list all persons having over a 20% ownership in the facility.

See APPENDIX A for Certificate of Authority.

18. TCEQ Core Data Form

The TCEQ requires that a Core Data Form (TCEQ-10400) be submitted on all incoming applications, unless a Regulated Entity and Customer Reference Number has been issued by the TCEQ and no core data information has changed. For more information regarding the Core Data Form, call (512) 239-5175 or visit the TCEQ Website.

See APPENDIX A for TCEQ Core Data Form.

19. Other Governmental Entities Information

Coastal Management Program

Is the facility within the Coastal Management Program boundary?

☐ Yes ☒ No

Local Government Jurisdiction (If Applicable)
Within City Limits of: N/A
Within Extraterritorial Jurisdiction of: N/A

Is the facility located in an area in which the governing body of the municipality or county has prohibited the storage, processing or disposal of municipal or industrial solid waste?

☐ Yes ☒ No If "Yes", provide a copy of the ordinance or order as an attachment.

20. Attachments

Does the application include the following?

General Maps	☒ Yes	☐ No
General Topographic Map	☒ Yes	☐ No
Facility Layout Map	☒ Yes	☐ No
Surrounding Features Map	☒ Yes	☐ No
Process Flow Diagram	☒ Yes	☐ No
Land Ownership Map	☒ Yes	☐ No
Land Ownership List	☒ Yes	☐ No
Pre-printed Mailing Labels	☒ Yes	☐ No

Maps and drawings shall be legible and easily readable by eye without magnification. Scales and paper size shall be chosen based on the type of map submitted, the land area covered, and the amount of detail to be shown. See instructions for details regarding maps and drawings to be submitted in application.

See APPENDIX A for Attachments detailed in Item 20.

21. Verification of Compliance

Does the owner and operator verify that the design, construction, and operation of CCR landfill(s) and surface impoundment(s) meets the requirements of 30 TAC §352.231(f) (30 TAC §352.2; 40 CFR §257.52, and 40 CFR §§257.3-1 – 257.3-3).

☒ Yes ☐ No

As requested by TCEQ, please see "Compliance Assessment for Coleto Creek Power Station Primary Ash Pond – 40 CFR 257.52(b)" memorandum for Primary Ash Pond provided by BBA in APPENDIX A.

II. Location Restrictions and Geology

See Instructions and Technical Guidance

22. Location Restrictions

Submit certifications and technical reports demonstrating compliance of CCR unit(s) with applicable location restrictions (30 TAC 352, Subchapter E) and comply with 30 TAC §352.231(d) and 30 TAC §352.4 for submission of engineering and geoscientific information.

A. **Placement above the uppermost aquifer** (30 TAC §352.601) (40 CFR §257.60). For those CCR units whose base is less than five feet above the upper limit of the uppermost aquifer, please submit a copy of the demonstration showing evidence of compliance with 40 CFR §257.60(a) – (c).

B. **Wetlands** (30 TAC §352.611) (40 CFR §257.61). For CCR units located in wetlands, please submit a copy of the demonstration showing evidence of compliance with 40 CFR §257.61(a) – (c).

C. **Fault areas** (30 TAC §352.621) (40 CFR §257.62). For CCR units located within 200 feet of the outermost damage zone of a fault, please submit a copy of the demonstration showing evidence of compliance with 40 CFR §257.62(a) – (c).

D. **Seismic impact zones** (30 TAC §352.631) (40 CFR §257.63). For CCR units located in a seismic impact zone, please submit a copy of the demonstration showing evidence of compliance with 40 CFR §257.63(a) – (c).

E. **Unstable areas** (30 TAC §352.641) (40 CFR §257.64). For CCR units located in unstable areas, please submit a copy of the demonstration showing evidence of compliance with 40 CFR §257.64(a) – (d).

Location Restrictions Demonstration and Location Restrictions Assessment for the Primary Ash Pond located in APPENDIX B.

23. Geology Summary Report

Submit a summary of the geologic conditions at the facility, including the relation of the geologic condition to each CCR unit. The summary must include enough information and data and include sources and references for the information. Include all groundwater monitoring data required by 40 CFR Part 257, Subpart D, (30 TAC §352.241, §352.601, §352.621, §352.631, and §352.641) and submitted in accordance of 30 TAC §352.4.

Note: Previously prepared documents may be submitted but must be supplemented or updated as necessary to provide the requested information (30 TAC §352.241(b)).

For Geology Summary, please refer to "Groundwater Hydrogeologic Monitoring Plan" reports for the Primary Ash Pond located in APPENDIX E. The Geology and Hydrogeology summary is located in Section 2 of the report.

All groundwater monitoring data summarized in "2020 Annual Groundwater Monitoring and Corrective Action Report" for the Primary Ash Pond located in APPENDIX E

III. Fugitive Dust Control Plan

24. Fugitive Dust Control Plan

A. Submit a copy of the CCR Fugitive Dust Control Plan (30 TAC §352.801) (40 CFR §257.80(b)), or the most recently amended plan. The initial plan or subsequent amended plan must be certified by a qualified Texas licensed professional engineer (Texas P.E.) that the plan meets the requirements of 30 TAC Chapter 352.

B. Submit the most recent Annual CCR Fugitive Dust Control Report (30 TAC §352.801) (40 CFR §257.80(c)) and include the report information.

CCR Fugitive Dust Control Plan and 2021 Annual CCR Fugitive Dust Control Report are located in APPENDIX C.

IV. Landfill Criteria – N/A

See Instructions and Technical Guidance – No. 30 Coal Combustion Residuals Landfill

25. Landfill(s) for CCR Waste

Provide the following information below if there is a landfill; if there is more than one landfill, separate information is required for each landfill.

A. Landfill Characteristics

Describe the design, installation, construction, and operation of the landfill and submit a completed Table IV.A. – Landfill Characteristics.

B. Liner Design

1. For existing landfills, provide attachments describing how the facility will comply with 30 TAC 352, Subchapter F (Design Criteria).

2. For new landfills or lateral expansions of existing landfills, submit pages describing how the facility will comply with 30 TAC §352.261 and 30 TAC §352.701.
3. Complete Table IV.B. - Landfill Liner System and specify the type of liner used for the landfill.
4. Provide attachments describing the design, installation, and operation of the liner and leak detection system. The description must demonstrate that the liner and leak detection system will prevent discharge to the land, groundwater, and surface water. Submit a quality assurance project plan (QAPP) to ensure that each analysis is performed appropriately.

C. Leachate Collection and Removal

Submit design information and description of leachate collection and removal system in accordance with 30 TAC §352.701.

Complete Table IV.C. - Landfill Leachate Collection System

D. Design of Liner and Leachate Collection and Removal System.

For a new landfill or lateral expansion of a CCR landfill, provide a qualified Texas P.E. certification and technical report that the design of the liner and the leachate collection and removal system meets the requirements of 30 TAC §352.711.

E. Run-on and Run-off Controls

At time of application, attach pages describing how the facility will comply with the run-on and run-off system plan for an existing, new, or lateral expansion of a CCR landfill information. Provide a qualified Texas P.E. certification and technical report that the run-on and run-off control system plans meet the requirements of 30 TAC §352.811.

F. Inspection for Landfills

At time of application, attach pages describing how the facility will comply 30 TAC §352.841 and complete Table IV.D. – Inspection Schedule for Landfills. For existing CCR landfills, provide the most recent inspection report. All CCR landfills and any lateral expansions of a CCR landfill must be inspected for any structural weakness, malfunction, deterioration conditions which are disrupting or have the potential to disrupt the operation or safety of the CCR unit, or any other conditions which may cause harm to human health and environment at a frequency specified in 40 CFR §257.84(a) and (b).

V. Surface Impoundment Criteria

See Instructions and Technical Guidance – No. 31 Coal Combustion Residuals Surface Impoundment

26. Surface Impoundment(s) for CCR Waste

Provide the following information below if there is a surface impoundment; if there is more than one surface impoundment, separate information is required for each surface impoundment.

A. General Surface Impoundment(s) Characteristics

Provide information about the characteristics of the surface impoundment(s): incised, surface area (acres), storage volume (acres-feet), and depth (feet).

For all surface impoundment(s), include the following information:

1. Complete Table V.A. - Surface Impoundments Characteristics. List the surface impoundment(s) to be registered as a CCR unit(s), the wastes managed in each unit, and the rated capacity or size of each unit.

2. Describe the surface impoundment(s) and provide a plan view drawing with cross-sections, if available.

   See "History of Construction and Initial Hazard Potential Assessment, Structural Integrity Assessment, and Safety Factor Assessment" in APPENDIX D, section 2.3 for a summary description of the impoundment. For drawings, see Figures 2-4 and 2-5A.

3. Specify the minimum freeboard to be maintained and the basis of the design to prevent overtopping resulting from normal or abnormal operation; overfilling; wind and wave action; rainfall; run-on; malfunctions of level controllers, alarms, and other equipment; and human error. Show that adequate freeboard will be available to prevent overtopping from a 100-year, 24-hour storm.

   The "Inflow Design Flood Control System Plan" located in APPENDIX D indicates maximum elevation set at 136.1' to allow sufficient freeboard for design storm and wave action. See last paragraph of section 2.0.

4. Waste Flow
   Describe the means that will be used to immediately shut off the flow of waste to the impoundment in the event of liner failure or to prevent overtopping.

   All inflows that enter the surface impoundment are pumped into the unit under controlled conditions. There are no gravity or uncontrolled inflows. Pumps will be immediately removed from service to shut off flows to the impoundment.

5. Dike Construction ☒ Yes ☐ No

   If Yes, submit the dike certification (located at the end of the application).

   In October 2016, the initial certified Periodic Hazard Potential Classification Assessment, Periodic Structural Stability Assessment, and Periodic Safety Factor Assessment were completed for the Primary Ash Pond as required by 40 CFR 257.73(a), 257.73(d), and 257.73(e). In October 2021, the certified 5-Year Updates to these assessments were completed as required by 40 CFR 257.73 and 30 TAC 352.731, which identified no structural deficiencies. The most recent 2021 5-Year Assessment Updates are located in APPENDIX E. Based on the conclusion in the certified 5-year updates that no structural deficiencies exist, the facility is submitting these documents in lieu of the Dike Certification.

   The structural integrity of the dike system must be certified by a qualified Texas P.E. before the registration is issued. If the impoundment is not being used, the dike system must be certified before it can be put into use. The certification must be sealed by a qualified Texas P.E., along with the engineering firm's name and registration number (30 TAC §352.4).

   A report shall accompany the dike certification which summarizes the activities, calculations, and laboratory and field analyses performed in support of the dike certification. Describe the design basis used in construction of the dikes. A QAPP should be included in the report to ensure that each analysis is performed appropriately and include:

   (1) Slope Stability Analysis

   (2) Hydrostatic and Hydrodynamic Analysis

   (3) Storm Loading

   (4) Rapid Drawdown

Earthen dikes should have a protective cover to minimize wind and water erosion and to preserve the structural integrity of the dike. Describe the protective cover used and describe its installation and maintenance procedures.

B. Liner Design

For surface impoundment(s), provide information about how the facility will comply with 30 TAC §352.711 for existing CCR surface impoundments. For new and lateral expansion of CCR surface impoundments provide information on how the facility will comply with 30 TAC §352.261, and 30 TAC §352.721, see Instructions and Technical Guidance No. 31 Coal Combustion Residuals Surface Impoundment. The qualified Texas P.E. must certify that the design of the liner complies with the requirements of 30 TAC Chapter 352 and 40 CFR Part 257, Subpart D, where required.

Is the CCR surface impoundment unlined? ☒ Yes ☐ No

If "Yes", the CCR unit is subject to the closure requirements under 30 TAC Chapter 352 and 40 CFR §257.101(a) to retrofit or close. A notification must be prepared stating that an assessment of corrective measures has been initiated.

On November 30, 2020, Coleto Creek Power, LLC (CCP) submitted a request to the U.S. Environmental Protection Agency (EPA) for approval of a site-specific alternative deadline to initiate closure pursuant to 40 C.F.R. § 257.103(f)(2) for the Primary Ash Pond located at the Coleto Creek Power Plant near Fannin, Texas. CCP is requesting an extension pursuant to 40 C.F.R. § 257.103(f)(2) so that the Primary Ash Pond may continue to receive CCR and non-CCR wastestreams after April 11, 2021, and complete closure no later than October 17, 2028. On January 11, 2022, EPA issued a letter stating the site-specific alternative deadline demonstration was deemed complete thus tolling the cease receipt date until a final decision is issued on the demonstration. The "Coleto Creek CCR Surface Impoundment Demonstration for a Site-Specific Alternative to the Initiation of Closure" report submitted can be found in APPENDIX D.

1. Complete Table V.B. - Surface Impoundment Liner System for each surface impoundment to be registered.
2. Describe the design, installation and operation of liner and leak detection components. The description must demonstrate that the liner and leak detection system will prevent discharge to the land and surface water. Submit a QAPP report to ensure that each analysis is performed appropriately.

   See Section 2 in the "History of Construction and Initial Hazard Potential Assessment, Structural Integrity Assessment, and Safety Factor Assessment" report in APPENDIX D.
3. For new or laterally expansions of existing surface impoundments, provide a subsurface soil investigation report that must include:
   a. A description of all borings drilled, at the unit location, to test soils and characterize groundwater;
   b. A unit map drawn to scale showing the surveyed locations and elevations of the borings, including location of permanent identification markers ((30 TAC §352.731) and (40 CFR §257.73(a)(1));
   c. Cross-sections prepared from the borings depicting the generalized strata at the unit;
   d. Boring logs, including a description of materials encountered, and any discontinuities such as fractures, fissures, slickensides, lenses or seams;

e. A description of the geotechnical data and the geotechnical properties of the subsurface soil materials, including the suitability of the soils and strata for the intended uses; and

f. A demonstration that all geotechnical tests were performed in accordance with industry practices and recognized procedures.

C. Hazard Potential Classification

Provide the current hazard potential classification assessment and associated documentation, as required by 30 TAC §352.731 or §352.741 and 40 CFR §257.73(a)(2) or §257.74(a)(2). The qualified Texas P.E. must certify that the initial hazard potential classification and any subsequent periodic classification was conducted in accordance with the requirements of 30 TAC Chapter 352, where required.

Hazard Potential Classification: **LOW**

See "Hazard Potential Classification Assessment" located in APPENDIX D.

D. Emergency Action Plan for High or Significantly High Hazard Potential

Provide the current Emergency Action Plan that has been certified by a qualified Texas P.E. and includes the following requirements from 30 TAC 352, Subchapter F and 40 CFR §257.73(a)(3)(i)(A) - (E) or 40 CFR §257.74 (a)(3)(i)(A) - (E). The qualified Texas P.E. must certify that the written Emergency Action Plan and any subsequent amendment of the plan complies with the requirements of 30 TAC 352, Subchapter F, where required.

Complete Table V.J. - Inspection of Surface Impoundments

N/A

E. Inflow Design Flood Control System Plan

Describe how the surface impoundment(s) system will manage stormwater run-on away from the surface impoundment(s) (30 TAC §352.821 and 40 CFR §257.82(a) and (c)). Stormwater run-on must be diverted away from a surface impoundment, based on the hazard potential. Where dikes are used to divert run-on, they must be protected from erosion. Include all analyses used to calculate run-on volumes. Provide the inflow design flood control system plan. Provide qualified Texas P.E. certification that the initial and periodic inflow design flood control system plans meet the requirements of 30 TAC §352.821, where required.

See "Inflow Design Flood Control System Plan" located in APPENDIX D.

F. History of Construction for Existing CCR Surface Impoundment(s), or the Design and Construction Plans for New and Lateral Expansions

Provide information on the history of construction for each existing CCR surface impoundment (30 TAC §352.731 and 40 CFR §257.73(c)) or the design and construction plans for new and lateral expansions of each CCR surface impoundment (30 TAC §352.741) and (40 CFR §257.74(c)).

See "History of Construction" report located in APPENDIX D.

G. Structural Stability Assessment

Provide the most recent structural stability assessment of the surface impoundments. Include the combined capacity of all surface impoundment spillways with calculations; the peak discharge the unit must meet for all combined spillways; probable maximum flood-high hazard, 1,000-yr-significant high hazard, 100-yr-low hazard; identify if there were any structural stability deficiencies in last assessment; identify how these deficiencies were managed and corrected; and qualified Texas P.E. certification. The structural stability assessment must include all information required in 30 TAC §352.731 for existing surface impoundments or 30 TAC §352.741 for new or laterally expanding surface impoundments.

See "Structural Stability Assessment" located in APPENDIX D.

H. Safety Factor Assessment

The current safety factor assessment must be submitted with the application. It must include documentation that demonstrates whether the calculated factors of safety for each CCR surface impoundment achieve the minimum safety factors specified in 30 TAC 352, Subchapter F and 40 CFR §257.73(e)(1)(i) - (iv) and 40 CFR §257.74(e)(1)(i) - (iv) for the critical cross-section of the embankment. The critical cross-section is the cross-section anticipated to be the most susceptible to structural failure based on appropriate engineering considerations, including loading conditions. The safety factor assessments must be supported by appropriate engineering calculations and certified by a qualified Texas P.E.

See "Safety Factor Assessment" located in APPENDIX D.

VI. Groundwater Monitoring and Corrective Action (30 TAC 352, Subchapter H)

See Instructions and Technical Guidance – No. 32 Coal Combustion Residuals Groundwater Monitoring and Corrective Action

27. Groundwater Monitoring System

A. Complete Table VI.A. - Unit Groundwater Detection Monitoring System.

B. Provide a map showing location of wells, groundwater elevations, and groundwater flow direction.

See Figures 4 thru 7 in the "Groundwater Hydrogeologic Monitoring Plan" in APPENDIX E.

C. Provide attachments describing how the facility will comply with the requirements in 30 TAC §352.911 and provide a certification by a qualified Texas P.E or qualified Texas P.G. that the groundwater monitoring system design and construction meet the requirements of 30 TAC Chapter 352.

See Appendix A in the "Groundwater Hydrogeologic Monitoring Plan" located in APPENDIX E for the monitoring system certification. "Supplemental Geologic and Hydrogeologic Information Report No.2." is also included in APPENDIX E to supplement information in the "Groundwater Hydrogeologic Monitoring Plan".

D. Provide a figure showing the 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.

See Figures 2 and 3 in the "Groundwater Hydrogeologic Monitoring Plan" in APPENDIX E. For additional information see the "Supplemental Geologic and Hydrogeologic Information Report No.2" also in APPENDIX E.

E. For a multiunit groundwater monitoring system, demonstrate that the groundwater monitoring system will be equally as capable of detecting monitored constituents at the waste boundary of the CCR unit as the individual groundwater monitoring system for each CCR unit by providing at minimum the following information:

1. Number, spacing, and orientation of each CCR unit;
2. Hydrogeologic setting; and
3. Site history.

F. Has there been any sampling concentrations of one or more constituents listed in Appendix IV detected at statistically significant levels above the groundwater protection standard (GWPS)? ☐ Yes ☒ No

G. Provide information on how monitoring wells have been constructed and cased in a manner that maintains the integrity of the monitoring well borehole and to prevent contamination of samples and the groundwater.

Groundwater monitoring well construction logs are located in Appendix B of the "Groundwater Hydrogeologic Monitoring Plan" found in APPENDIX E.

28. Groundwater Monitoring Sampling and Analysis Program

Provide a sampling and analysis plan that includes procedures and techniques; sampling and analytical methods that are appropriate for groundwater sampling; and that address the requirements of 30 TAC §352.931 and 40 CFR §257.93. Provide a P.E or P.G. certification that describes the statistical method selected to evaluate the groundwater monitoring data and certifies that the selected statistical method is appropriate for evaluating the groundwater monitoring data for the CCR management area. Refer to TG-32 for information and guidance.

See "Groundwater Monitoring Plan-Revision 1", Background Groundwater Monitoring and Statistical Analysis Summary Report", "Statistical Analysis Plan-Revision 1", and "Statistical Method Certification" in APPENDIX E.

29. CCR Unit(s) in a Detection Monitoring Program

Does the facility have CCR unit(s) in a Detection Monitoring Program?

☐ Yes ☒ No

If "Yes", Submit the following information:

A. Submit Table VI.C. – Facility CCR Units Under Detection Monitoring.

B. Provide a Background Evaluation Report.

C. Provide a report with the results of semiannual monitoring events.

1. Has a statistically significant increase (SSI) been detected for one or more of the constituents listed in Appendix III at any monitoring well?

☐ Yes ☐ No

2. Has a notification to the executive director been sent within 14 days?

   ☐ Yes ☐ No

3. Date assessment monitoring program will start:

4. Do you plan to provide an alternative source demonstration (ASD)?

   ☐ Yes ☐ No

30. CCR Unit(s) in an Assessment Monitoring Program

Does the facility have CCR unit(s) in an Assessment Monitoring Program?

☒ Yes ☐ No
If "Yes", Submit information related for units.

A. Complete Table VI.D. – CCR Units Under Assessment Monitoring.

B. Provide, for each well in assessment monitoring status, the recorded concentrations lab sheets and results in a tabulated form.

See summary Tables 3 and 4 for all results in tabulated form in the "2020 Annual Groundwater Monitoring and Corrective Action Report" in APPENDIX E.

Have the concentrations of all constituents listed in Appendices III and IV been at or below background values, using the statistical procedures in 30 TAC §352.931 and 40 CFR §257.93(g), for two consecutive sampling events for the CCR unit(s)? ☐ Yes ☒ No

If answer to above is yes, detection monitoring may resume. The owner or operator must prepare a notification stating that detection monitoring is resuming for the CCR unit and obtain written approval from the executive director.

C. Are there any concentrations of any constituent in Appendices III and IV above background values? ☒ Yes ☐ No

1. Has a notification to the executive director been sent within 14 days?

   ☒ Yes ☐ No

D. Date assessment of corrective measures will be initiated (must be within **90 days** of finding a statistically significant level above the GWPS) for the CCR unit(s):
Not required due to no SSLs to date. Unit is in assessment monitoring but has not triggered assessment of corrective measure to date.

E. Will you provide an ASD (see TG-32 for an acceptable submittal)? ☐ Yes ☒ No

F. Date assessment of corrective measures will be initiated if ASD is not accepted?
Not required.

G. Complete Table VI.D-2. - Groundwater Detection Monitoring Parameters

Note: Refer to TG-32 regarding establishing a GWPS for each constituent in Appendix IV detected in the groundwater and attach as table.

H. Have you completed the assessment of corrective measures? ☐ Yes ☒ No
If "Yes", date assessment of corrective measures was completed:
If "No", date assessment of corrective measures will be completed: Not required
Expected date of submittal of amendment (see note below):
Provide completed assessment of corrected measures materials.

Note: Within **30 days** of completing the assessment of corrective measures, and before remedy implementation, the owner or operator shall submit an application for amendment to the registration. In some circumstances, the assessment of corrective measures and selected remedy may be approved as part of the initial application for the CCR unit registration.

I. Have you selected a remedy? ☐ Yes ☐ No N/A

Provide public meeting documentation under 30 TAC §352.961 and a report under 30 TAC §352.971 and 40 CFR §257.97.

VII. Closure and Post-Closure Care

See Instructions and Technical Guidance

Submit a full closure plan and post-closure plan and all information describing how the owner or operator will comply with 30 TAC 352, Subchapter J and 40 CFR §§257.100 - 257.104. The owner of property on which an existing disposal facility is located, following the closure of a unit, must also submit documentation that a notation has been placed in the deed to the facility that will in perpetuity notify any potential purchasers of the property that the land has been used to manage CCR wastes and its use is restricted (30 TAC §352.1221 and 40 CFR §257.102(i)). For CCR units, closed after October 19, 2015, that were closed before submission of the application, the applicant should submit documentation to show that notices required under 30 TAC 352, Subchapter K and 40 CFR §257.105 or §257.106 have been filed.

See "Closure Plan" and "Post-Closure Plan" in APPENDIX F. Also included in the appendix a "Closure Plan Addendum No.1" that was prepared to meet the requirements of the site-specific alternative deadline to initiate closure. "Closure Plan Addendum No.2" and "Post-Closure Plan Addendum No.1" are also in APPENDIX F.

On January 11, 2022, USEPA provided a determination that the alternative closure demonstration was complete thus tolling the waste receipt deadline for the CCR unit until USEPA issues a final decision. To date, no decision has been issued by USEPA regarding the Coleto Creek request for a site-specific alternative deadline to initiate closure. A copy of the completeness determination letter is located in APPENDIX F.

31. Closure Plan

This section applies to the owners and operators of all CCR units required to be registered. The applicant must close the facility in a manner that minimizes need for further maintenance and controls, or eliminates, to the extent necessary to protect human health and the environment, the post-closure release of CCR waste, chemical constituents of concern, leachate, contaminated rainfall, or waste decomposition products to the groundwater, surface waters, or to the atmosphere.

The type of unit to be closed can determine the level of detail sufficient for a closure plan. CCR units which have been certified closed after October 19, 2015, must provide documentation to demonstrate compliance with state and federal regulations.

For each unit to be registered, complete Table VII.A.1. - Unit Closure and list the CCR Unit components to be decontaminated, possible methods of decontamination, and possible methods of disposal of wastes and waste residues generated during unit closure. All ancillary components must be decontaminated, and the generated waste disposed of appropriately.

Information about CCR units closed or to be closed under alternative closure requirements must be provided in Table VII.A.2. - CCR Units Under Alternative Closure Notification.

Guidance on design of a closure cap and final cover for non-hazardous industrial solid wastes landfills is provided in EPA publication 530-SW-85-014, TCEQ Technical Guidance No. 3 and TCEQ publication, RG-534, "Guidance for Liner Construction and Testing for a Municipal Solid Waste Landfill".

32. Post-Closure Care Plan

Provide a post-closure care plan that complies with the requirements of 30 TAC §352.1241.

See "Post-Closure Plan" and "Post-Closure Plan Addendum No.1" in APPENDIX F.

Post-closure care of each CCR unit must continue for at least 30 years after the date of completing closure of the unit and must consist of monitoring and reporting of the groundwater monitoring systems, in addition to the maintenance and monitoring of CCR unit. Continuation of certain security requirements may be necessary after the date of closure. Post-closure use of property on or in which waste remains after closure must never be allowed to disrupt the integrity of the containment system. In addition, submit the following information:

- The name, address, and phone number of the person or office to contact about the CCR unit during the post-closure period; and

  Luminant-Environmental Services
  Renee Collins-Senior Environmental Director
  6555 Sierra Drive
  Irving, TX 75039
  214-875-8338
  CCRPostClosurePlan@Luminant.com

- A discussion of the future use of the land associated with each unit.

  Following closure of the Primary Ash Pond, a notation on the deed to the property, or some other instrument that is normally examined during title search, will be recorded in accordance with 40 CFR 257.102(i). The notation will notify potential purchasers of the property that the land has been used as a CCR unit and its use is restricted under the post-closure care requirements per 40 CFR 257.104(d)(1)(iii).

Landfills and surface impoundments which have been certified closed after October 19, 2015, must be included in post-closure care plans, unless they have been determined to have been closed by waste removal equivalent to the closure standards in 30 TAC §352.1221 and 40 CFR §257.102 or 30 TAC §352.1231 and 40 CFR §257.103. If such a demonstration has been made pursuant to 40 CFR §257.102 or §257.103, but an equivalency determination has not been made, please submit a copy of the demonstration documentation. If an equivalency determination has been made, applicant should submit a copy of this determination.

VIII. Financial Assurance

33. Post-Closure Care Cost Estimate

Financial assurance for post-closure care (30 TAC §352.1101) applies to owners or operators of all CCR units, except CCR units from which the owner or operator intends to remove wastes and perform clean closure. Provide a written cost estimate in current dollars of the total cost of the 30-year (or longer, if applicable under 30 TAC §352.1101(d)) post-closure care period to perform post-closure care requirements as prescribed in 30 TAC §352.1241. The cost estimate must be based on the costs of hiring a third party to conduct post-closure care maintenance.

Complete Table VIII.A.1 – Post-Closure Cost Summary for Existing Registered Units

See Post-Closure Care Cost Estimate in APPENDIX G. Cost estimates for the Primary Ash Pond are summarized in Table 1.

Complete Table VIII.A.2. - Post-Closure Cost Summary for Proposed Registered Units

34. Financial Assurance Mechanism

The financial assurance for post-closure care is required in accordance with 30 TAC §352.1101. The applicant shall demonstrate the financial assurance within 90 days after approval of the registration with a financial mechanism acceptable to TCEQ in compliance with 30 TAC §352.1101(c) and 30 TAC §37, Subchapters A through D, except as indicated in 30 TAC §352.1111, in an amount no less than the amount specified in the approved Post-Closure Care Cost Summary. Provide a description of the proposed financial assurance mechanism.

Luminant Generation Company LLC will provide an acceptable financial assurance mechanism per 30 TAC 352.1101 no more than 90 days after the executive director's approval of the registration.

Complete Table VIII.B. - Post-Closure Period, for the authorized post-closure period, to meet the requirements of 30 TAC §352.1241(a) through (c).

Signature Page

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Applicant Signature: _____ Date: _____

Name and Official Title (type or print): _____

Owner or Operator Signature: _____ Date: _____

Name and Official Title (type or print): _____

To be completed by the owner or operator if the application is signed by an authorized representative for the operator

I, _____ hereby designate _____
(operator) (authorized representative)

as my representative and hereby authorize said representative to sign any application, submit additional information as may be requested by the Commission; and/or appear for me at any hearing or before the Texas Commission on Environmental Quality in conjunction with this request for a CCR waste management registration. I further understand that I am responsible for the contents of this application, for oral statements given by my authorized representative in support of the application, and for compliance with the terms and conditions of any registration which might be issued based upon this application.

_____
Printed or Typed Name of Applicant or Principal Executive Officer

_____
Signature

(Note: Application Must Bear Signature & Seal of Notary Public)

Subscribed and sworn to before me by the said _____ on this

_____ day of _____, _____.

My commission expires on the _____ day of _____, _____

(Seal) Notary Public in and for _____ County, Texas

Registration Application for Coal Combustion Residuals Waste Management

(See instructions for P.E/P.G. seal requirements.)

Attachments and Tables	**Attachment No.**
General Information	Appendix A
Property/Legal Description	
Property Owner Affidavit	
Legal Authority	
Delegation of Signature Authority	
TCEQ Core Data Form	
Attachments	
Compliance Assessment for Coleto Creek Power Station Primary Ash Pond – 40 CFR 257.52(b)	
Location Restrictions & Geology	Appendix B
Location Restrictions Demonstration	
Location Restrictions Assessment	
Fugitive Dust Control Plan	Appendix C
CCR Fugitive Dust Control Plan	
2021 Annual CCR Fugitive Dust Control Report	
Surface Impoundment Design and Operating Criteria	Appendix D
Alternative Closure Plan Demonstration – §257.103(f)(2)	
Hazard Potential Classification Assessment	
Inflow Design Flood Control Plan	
History of Construction Report	
Structural Stability Assessment	
Safety Factor Assessment	
Groundwater Monitoring and Corrective Action	Appendix E
Groundwater Hydrogeologic Monitoring Plan	
Supplemental Geologic and Hydrogeologic Information	
Supplemental Geologic and Hydrogeologic Information Report No.2	
Groundwater Monitoring Plan-Revision 1	
Background Groundwater Monitoring and Statistical Analysis Summary Report	
Statistical Analysis Plan-Revision 1	
Statistical Method Certification	
2020 Groundwater Monitoring and Corrective Action Report	
2021 Groundwater Monitoring and Corrective Action Report-Revision 1	
Closure and Post-Closure Care	Appendix F
Closure Plan	
Closure Plan Addendum No.1	
Closure Plan Addendum No.2	
Alternative Closure Demonstration Completeness Determination Letter	
Post-Closure Plan	
Post-Closure Addendum No.1	
Financial Assurance	Appendix G
Post-Closure Care Cost Estimate	

Tables

Tables	Submitted	Not Applicable
Table I.6. - CCR Waste Management Units	☒	☐
Table I.6.A. - Waste Management Information	☒	☐
Table I.6.B. - Wastes Managed in Registered Units	☒	☐
Table I.6.C. - Sampling and Analytical Methods	☒	☐
Table IV.A. - Landfill Characteristics	☐	☒
Table IV.B. - Landfill Liner System	☐	☒
Table IV.C. - Landfill Leachate Collection System	☐	☒
Table IV.D. - Inspection Schedule of Landfills	☐	☒
Table V.A. - Surface Impoundments Characteristics	☒	☐
Table V.B. - Surface Impoundment Liner System	☒	☐
Table V.J. - Inspection of Surface Impoundments	☒	☐
Table VI.A. - Unit Groundwater Detection Monitoring System	☐	☐
Table VI.C. - CCR Units Under Detection Monitoring	☐	☒
Table VI.C-1. – Groundwater Detection Monitoring Parameters	☒	☐
Table VI.D. - CCR Units Under Assessment Monitoring	☒	☐
Table VI.D-2. - Groundwater Assessment Monitoring Parameters	☒	☐
Table VII.A.1. - Unit Closure	☒	☐
Table VII.A.2. - CCR Units Under Alternative Closure Notification	☒	☐
Table VIII.A.1. - Post-Closure Cost Summary for Existing Registered Units	☒	☐
Table VIII.A.2. - Post-Closure Cost Summary for Proposed Registered Units	☐	☒
Table VIII.B. - Post-Closure Period	☐	☒
Engineering Certification(s) - Dike Construction	☐	☒

Additional Attachments as Applicable - Select all those apply and add as necessary

☒ TCEQ Core Data Form(s) **Appendix A**
☒ Signatory Authority Delegation **Appendix A**
☐ Fee Payment Receipt
☐ Confidential Documents
☒ Certificate of Fact (Certificate of Incorporation) **Appendix A**
☐ Assumed Name Certificate

Table I.6. – CCR Waste Management Units

CCR Unit No.[1]	Unit Name	N.O.R. No.[1]	Unit Description[3]	Capacity	Unit Status[2]
001	Primary Ash Pond	001	Surface Impoundment	2,700 acre-feet	Active

1 Registered Unit No. and N.O.R. No. cannot be reassigned to new units or used more than once.
2 Unit Status options: Active, Closed, Inactive (built but not managing waste), Proposed (not yet built), Never Built, Transferred, Post-Closure.
3 If a unit has been transferred, the applicant should indicate which facility/permit it has been transferred to in the Unit Description column.

Table I.6.A. – Waste Management Information

Waste No.[1]	Waste Type(s)	Source	Volume (tons/year)
1	Fly Ash	Coal Combustion Byproduct	57,000 produced 425 disposed
2	Bottom Ash	Coal Combustion Byproduct	13,000 produced 400 disposed

1 Assign waste number sequentially. Do not remove waste number wastes which are no longer generated.

Table I.6.B. – Wastes Managed in Registered Units

Waste No.[1]	Waste	TCEQ Waste Form Codes and Classification Codes
1	Fly Ash	TWC-20173192, TX Form Code-319, Class 2
2	Bottom Ash	TWC-20183192, TX Form Code-319, Class 2

1 from Table I.6.A., first column

Table I.6.C – Sampling and Analytical Methods

Waste No.[1]	Sampling Location	Sampling Method	Frequency	Parameter	Test Method	Desired Accuracy Level
1	Fly Ash	Grab	<5 years	TCLP Metals	SW1311/7470A SW1311/6020B	See below [2]
2	Bottom Ash	Grab	<5 years	TCLP Metals	SW1311/7470A SW1311/6020B	See below [2]

1 from Table I.6.A., first column

2 Analytical protocol will meet EPA quality control and accuracy specifications as published in the SW-846 Methods. The laboratory will be TCEQ accredited.

Table IV.A. – Landfills Characteristics

Registered Unit No.	Landfill	N.O.R. No.	Waste Nos.[1]	Rated Capacity	Dimensions[2]	Distance from lowest liner to groundwater	Action Leakage Rate (if required)	Unit will manage CCR Waste and non-CCR Waste (state all that apply)
N/A								

1 From Table I.6.A., first column
2 Dimensions should be provided as average length, width and depth, also include the surface acreage for the unit.

Table IV.B. – Landfill Liner System

Registered Unit No.*	Landfill	Geomembrane Liner Material	Geomembrane Liner Permeability (cm/sec)	Geomembrane Liner Thickness	Soil Liner Material	Soil Liner Permeability (cm/sec)	Soil Liner Thickness
N/A							

* This number should match the Registration Unit No. given on Table IV.A.

Table IV.C. – Landfill Leachate Collection System

Registered Unit No.	Landfill Name	Drainage Media	Collection Pipes (including risers)	Filter Fabric	Geofabric	Sump Material
N/A						

Table IV.D. – Inspection Schedule of Landfills

Facility Unit(s) and Basic Elements	Possible Error, Malfunction, or Deterioration	Frequency of Inspection
N/A		

Table V.A. – Surface Impoundment Characteristics

Registered Unit No.	Surface Impoundment Name	N.O.R. No.	Waste Nos.[1]	Rated Capacity	Dimensions[2]	Distance from lowest liner to groundwater	Action Leakage Rate (if required)	Unit will manage CCR Waste and non-CCR Waste (state all that apply)
001	Primary Ash Pond	001	1, 2	2,700 acre-feet	2,450 feet W x 3,375 feet L x 20 feet D 190 acres	>5 Feet	n/a	Fly Ash, Bottom Ash

1 From Table I.6.A., first column
2 Dimensions should be provided as average length, width and depth, also include the surface acreage for the unit.

Table V.B. – Surface Impoundment Liner System

Registered Unit No.*	Surface Impoundment Name	Geomembrane Liner Material	Geomembrane Liner Permeability (cm/sec)	Geomembrane Liner Thickness	Soil Liner Material	Soil Liner Permeability (cm/sec)	Soil Liner Thickness
001	Primary Ash Pond	None	None	None	In-situ clay	$<1.0 \times 10^{-7}$ cm/sec	Avg 9 feet, ranges 4 feet to 20 feet

* This number should match the Registration Unit No. given on Table V.A.

Table V.J. – Inspection Schedule of Surface Impoundments

Facility Unit(s) and Basic Elements	Possible Error, Malfunction, or Deterioration	Frequency of Inspection
001-Primary Ash Pond		Weekly inspections are performed at intervals not exceeding seven days per 40 CFR 257.83(a)
Above-grade piping	Deteriorating of piping/connections	Weekly inspections are performed at intervals not exceeding seven days per 40 CFR 257.83(a)
Truck Access Ramp	Spills, Deterioration	Weekly inspections are performed at intervals not exceeding seven days per 40 CFR 257.83(a), spills inspected and reported within 24-hrs
Containment Dike	Spills, excessive water levels, surface cracking, animal burrows, misalignments, slides, vegetative cover, rutting, erosion, seepage, slope protection/chutes	Weekly inspections are performed at intervals not exceeding seven days per 40 CFR 257.83(a), spills inspected and reported within 24-hrs
Instrumentation	Monitor water level	Unit instrumentation (water level gauge) is inspected and monitored at intervals not exceeding 30 days per 40 CFR 257.83(a)(1)(iii).
Groundwater	Deterioration of pads, bollards, missing locks, compromise of casing integrity	Semi-Annual Inspection
001-Primary Ash Pond		Annually per 40 CFR 257.83(b)
	Inspect for any changes in geometry of the structure since the previous annual inspection.	Annual Inspection
	Evaluate the approximate minimum, maximum, and present depth and elevation of the impounded water and CCR since previous annual inspection.	Annual Inspection
	Evaluate the storage capacity at the time of the inspection.	Annual Inspection
	Estimate the approximate volume of the impounded water and CCR contained in the unit at the time of the inspection.	Annual Inspection
	Inspect for any other change(s) which have affected the stability or operation of the CCR unit since the previous inspection	Annual Inspection

Table VI.A. - Unit Groundwater Detection Monitoring Systems

Waste Management Unit/Area Name[1]	**WMU 001 - Primary Ash Pond**								
Well Number(s):	MW-4	MW-5	MW-6	MW-8	MW-9	MW-10	MW-11	BV-5	BV-21
Hydrogeologic Unit Monitored	Houston Group	Houston Group	Houston Group	Houston Group	Houston Group	Houston Group	Houston Group	Houston Group	Houston Group
Type (e.g., point of compliance, background, observation, etc.)	POC	POC	POC	POC	POC	POC	POC	POC	POC
Up or Down Gradient	Down	Down	Down	Up	Down	Down	Down	B?	Up
Casing Diameter and Material	4" PVC	4" PVC	4" PVC	4" PVC	2" PVC	2" PVC	2" PVC	2" PVC	2" PVC
Screen Diameter and Material	4" PVC	4" PVC	4" PVC	4" PVC	2" PVC	2" PVC	2" PVC	2" PVC	2" PVC
Screen Slot Size (in.)	0.016"	0.016"	0.016"	0.016"	0.010"	0.010"	0.010"	0.010"	0.010"
Top of Casing Elevation (Ft, Mean Sea Level *[MSL]*)	137.71	122.31	119.22	134.72	132.3	130.4	118.66	135.8	131.17
Grade or Surface Elevation (Ft, MSL)	134.3	119.57	116.35	131.78	129.3	127.6	115.8	133	128.4
Well Depth (Ft, Below Grade Surface *[BGS]*)	70.1	59.27	61.15	56.88	60	60	49	40	40
Well Depth (Ft, Below Top of Casing *[BTOC]*)	73.51	62.01	64.02	59.82	63	62.8	51.86	42.8	42.77
Screen Interval									
From (Ft, BGS)	50.5	39.47	41.25	36.98	40	40	29	30	30
To (Ft, BGS)	70.1	59.27	61.15	56.88	60	60	49	40	40
Screen Interval									
From (Ft, BTOC)	53.91	42.21	44.12	39.92	43	42.8	31.86	32.8	32.77
To (Ft, BTOC)	73.51	62.01	64.02	59.82	63	62.8	51.86	42.8	42.77

1 From Tables in Section I.; *MSL* : Mean Sea Level; *BGS* : Below Grade Surface; *BTOC* : Below Top of Casing

NOTE-Data from Table 3 from Groundwater Hydrogeologic Monitoring Plan 10/17/2017

Table VI.C. – CCR Units Under Detection Monitoring

N.O.R. Unit No.	Unit Description[1,2]	Well(s)	Constituent(s)	Date of SSI Determination	Date of Assessment Monitoring Notification[3]
N/A					

1 Indicates a unit for which a 30 TAC Chapter 352/40 CFR Part 257, Subpart D alternative closure determination has been requested pursuant to 40 CFR §257.103.
2 Indicates a unit for which a 30 TAC Chapter 352/40 CFR Part 257, Subpart D alternative closure determination has been made pursuant to 40 CFR §257.103.
3 Enter month, day, and year.

Table VI.C-1. – Groundwater Detection Monitoring Parameters

Parameter	Sampling Frequency	Analytical Method	Practical Quantification Limit (units)	Concentration Limit[1]
Boron	Semi-Annual	SW6020A	0.0100 mg/L	~~1.26~~1.3
Calcium	Semi-Annual	SW6020A	0.10 mg/L	~~143~~140
Chloride	Semi-Annual	E300	0.30 mg/L	~~118~~120
Fluoride	Semi-Annual	E300	0.100 mg/L	0.61
Sulfate	Semi-Annual	E300	1.00 mg/L	~~148~~150
Total Dissolved Solids	Semi-Annual	M2540C	10.0 mg/L	~~766~~970
pH	Semi-Annual	Field Measured	s.u.	~~6.51~~6.5 ~~7.33~~7.3

[1] The concentration limit is the basis for determining whether a release has occurred from the CCR unit/area.

Table VI.D. – CCR Units Under Assessment Monitoring

N.O.R. Unit No.	Unit Description[1,2]	Well(s)	Constituent(s)	Date of SSI Determination	Date of Assessment Monitoring Notification[3]
001	Primary Ash Pond	MW-6, MW-9, MW-10	B	2/12/2018	Notification made 5/9/18
001	Primary Ash Pond	MW-4, MW-5, MW-6, MW-9, MW-10, MW-11	Cl, F, SO4, pH	2/12/2018	ASD Successful for all constituents except Boron (4/11/18)

1 Indicates a unit for which a 30 TAC Chapter 352/40 CFR Part 257, Subpart D alternative closure determination has been requested pursuant to 40 CFR §257.103.
2 Indicates a unit for which a 30 TAC Chapter 352/40 CFR Part 257, Subpart D alternative closure determination has been made pursuant to 40 CFR §257.103.
3 Enter month, day, and year

Table VI.D-2. – Groundwater Assessment Monitoring Parameters

Parameter	Sampling Frequency	Analytical Method	Practical Quantification Limit (units)	Concentration Limit[1]
Antimony	Semi-Annual	SW6020B	0.000800 mg/L	0.0060 mg/L
Arsenic	Semi-Annual	SW6020B	0.00200 mg/L	0.~~128~~13 mg/L
Barium	Semi-Annual	SW6020B	0.00300 mg/L	2.0 mg/L
Beryllium	Semi-Annual	SW6020B	0.000300 mg/L	0.0040 mg/L
Cadmium	Semi-Annual	SW6020B	0.000300 mg/L	0.0050 mg/L
Chromium	Semi-Annual	SW6020B	0.00200 mg/L	0.10 mg/L
Cobalt	Semi-Annual	SW6020B	0.00300 mg/L	~~0.499~~0.050 mg/L
Fluoride	Semi-Annual	SW6020B	0.100 mg/L	4.0 mg/L
Lead	Semi-Annual	SW6020B	0.000300 mg/L	0.015 mg/L
Lithium	Semi-Annual	SW6020B	0.00500 mg/L	0.040 mg/L
Mercury	Semi-Annual	SW7470A	0.0000800 mg/L	0.0020 mg/L
Molybdenum	Semi-Annual	SW6020B	0.00200 mg/L	0.10 mg/L
Selenium	Semi-Annual	SW6020B	0.00200 mg/L	0.050 mg/L
Thallium	Semi-Annual	SW6020B	0.000500 mg/L	0.0020 mg/L
Radium 226+228	Semi-Annual	904 + SM7500Ra B M	varies	5.0 pCi/L

1 The concentration limit is the basis for determining whether a release has occurred from the CCR unit/area.

Table VII.A.1. – Unit Closure

For each unit to be registered, list the unit components to be decontaminated, the possible methods of decontamination, and the possible methods of disposal of wastes and waste residues generated during unit closure.

Equipment or CCR Unit	Possible Methods of Decontamination[1]	Possible Methods of Disposal[1]
001-Primary Ash Pond Piping	Removal	Landfill
001-Primary Ash Pond	Close in Place	No Disposal

1 Applicants may list more than one appropriate method.

Table VII.A.2. – CCR Units Under Alternative Closure Notification

Registered Unit No.	N.O.R. Unit No.	Unit Description[1,2]	Date of Receipt of Last Waste[3]	Date of Closure Notification[3]
001	001	Surface Impoundment	7/17/2027	11/30/2020

1 Indicates a unit for which a 30 TAC Chapter 352/40 CFR Part 257, Subpart D alternative closure determination has been requested pursuant to 40 CFR §257.103.
2 Indicates a unit for which a 30 TAC Chapter 352/40 CFR Part 257, Subpart D alternative closure determination has been made pursuant to 40 CFR §257.103.
3 Enter month, day, and year.

Table VIII.A.1. – Post-Closure Cost Summary for Existing Registered Units

Unit	Cost
001-Primary Ash Pond	$3,117,987
Total Existing Unit Post-Closure Cost Estimate	$3,117,987 (in 2021 Dollars)[1]

Table VIII.A.2. - Post-Closure Cost Summary for Proposed Registered Units

Unit	Cost

1 As units are added or deleted from these tables through future registration amendments, the remaining itemized unit costs should be updated for inflation when re-calculating the revised total cost in current dollars.

Table VIII.B. – Post-Closure Period

Unit Name	Date Certified Closed	Authorized Post-Closure Period (Yrs.)	Earliest Date Post-Closure Ends (See Note 1)
[Unit Example 1]	**[1/1/1995]**	30 years	**[1/1/2025]**
[Unit Example 2]	**[1/1/1990]**	30 years	**[1/1/2020]**
[Unit Example 3]	**[1/1/1984]**	30 years	**[1/1/2014]**

Note 1 – Post-Closure Care shall continue beyond the specified date until the Executive Director has approved the applicant's request to reduce or terminate the post-closure period, consistent with 30 TAC §352.1241 – Post-Closure Care Requirements.

N/A