

CLECO POWER LLC
BOYCE, RAPIDES PARISH, LOUISIANA



SOLID WASTE IMPOUNDMENT
CLOSURE CERTIFICATION
REPORT

FLY ASH POND

AGENCY INTEREST 2922

DECEMBER 2023

Providence Engineering and Environmental Group LLC
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Providence Project No: 002-302-005



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1.0 INTRODUCTION

Cleco Power LLC (Cleco) owns and operates the Brame Energy Center (BEC), an electric utility power station near Boyce, Rapides Parish, Louisiana. Cleco received a solid waste permit, Permit P-0005-R1, from Louisiana Department of Environmental Quality (LDEQ) to construct and operate the Unit 2 Metal Cleaning Waste Pond, the Bottom Ash Pond, and the Fly Ash Pond which are all located within the BEC property. A Site Map is included as **Figure 1**.

The Fly Ash Pond stopped accepting waste on April 11, 2021, and initiated closure activities as defined by the CCR regulations (contracting and design) prior to May 11, 2021. The Closure Plan was submitted to the LDEQ on September 8, 2021. On August 11, 2022, the LDEQ approved the Closure Plan for the Fly Ash Pond. In preparation for implementation of the Fly Ash Pond Closure Plan, a 90-day closure notification was submitted to the LDEQ on January 13, 2023.

The Fly Ash Pond received fly ash, abrasives, sodium carbonate (tank bottoms), neutralized waste/fly ash, and spent activated carbon/trona via trucks. Excavated sludge from the metal cleaning waste ponds was also placed in the Fly Ash Pond on an as-needed basis.

The waste surface area of the Fly Ash Pond was approximately 36 acres as noted in P-0005-R1, however the overall size of the Fly Ash Pond was approximately 43.3 acres. The estimate of maximum inventory ever on site for the Fly Ash Pond was 530,000 cubic yards.

This Closure Certification Report has been prepared to document the closure of the Fly Ash Pond in accordance with the solid waste regulations and the facility's approved Closure Plan.

Upon final approval of closure, the footprint of the Fly Ash Pond will be used as landfill footprint for the Ash Management Landfill (P-0379-R1-M2). The groundwater monitoring network will remain in place and will continue to be sampled in accordance with the approved permit and the solid waste regulations.

2.0 CLOSURE ACTIVITIES

2.1 Pond Dewatering

Standing water within the Fly Ash Pond was pumped to the adjacent Bottom Ash Pond. The ash forms a cement-type material when wet; therefore, excess storm water was pumped to the Bottom Ash Pond. Dewatering was achieved by using the existing pump system that discharged to the Bottom Ash Pond.

2.2 Solids Removal

Once dewatering of the Fly Ash Pond was completed, the remaining waste within the pond was removed by mechanical excavation. Waste material was placed in haul trucks and transported to the on-site permitted landfill (Ash Management Landfill P-0379-R1-M2). Approximately 447,000 cubic yards of fly ash material and underlying soils were removed and transported to Cell 4 of the Ash Management Landfill. Once all Fly Ash was removed and the clay liner was exposed, approximately six inches of the existing clay liner material from the bottom and along a portion of the side slopes was also removed.

2.3 Confirmatory Soil Sample Collection

After all visible waste and six inches of clay liner were removed from the base and a portion of the sidewalls of the impoundment, soil sampling to support the risk-based closure of the Fly Ash Pond was conducted in accordance with approved Closure Plan and with LDEQ Risk Evaluation/Corrective Action Program (RECAP) requirements. Confirmatory sampling results are summarized in **Table 1**.

Confirmatory sampling events took place in two phases to facilitate the project timeline. The initial confirmatory soil sampling event took place on September 6-7, 2023. Three sampling locations were resampled on October 9, 2023, at new excavation depths.

2.3.1 Soil Sample Locations

The Fly Ash Pond was divided into 42 one-acre quadrants and two samples from each quadrant representing the base of the impoundment for each acre were obtained (designated with an A and/or B). One sample per acre from the side slopes were taken from each quadrant. Sample locations are shown in **Figure 2**.

To ensure that the remaining constituent concentrations are protective of human health and the environment, confirmatory samples were compared to LDEQ RECAP standards. Due to residual concentrations exceeding the applicable screening standards for vanadium in three locations, Cleco elected to remove approximately four inches of additional material in the corresponding quadrants with exceeding vanadium values (see **Figure 3**). These three sampling locations were resampled on October 9, 2023, at the new excavation depths.

2.3.2 Soil Sample Collection

Field decontamination procedures were performed on all sampling equipment before each sample was collected. Discreet soil samples were collected using a hand-auger device at each dry pond bottom and side slope location from zero to six-inch depth interval. Soil samples were processed and placed into laboratory supplied sample containers, preserved at four degrees Celsius, transported and relinquished to the laboratory for analyses using chain-of-custody SW-846 sampling protocol.

2.3.3 Soil Sample Analyses

All soil samples collected from the grid sampling locations were analyzed for the following parameters in accordance with the approved Closure Plan:

- pH
- Sulfate
- Arsenic
- Cadmium
- Copper
- Nickel
- Vanadium
- Zinc

The subcontracted analytical laboratory was Waypoint Analytical Louisiana, Inc., a Louisiana Environmental Laboratory Accreditation Program (LELAP)-approved laboratory. Analytical laboratory reports are included in **Attachment A**.

2.3.4 Soil Sample Analytical Results

Soil analytical data is summarized in **Table 1** and compares all post-excavation sample results to the LDEQ RECAP Screening-Option Standards (LSS). Sample results from post-excavation samples were less than the RECAP LSS except for vanadium at locations CS-5A, CS-14A, and CS-18A (**Figure 3**). These areas were over-excavated and an additional four inches of soil was removed and the areas were resampled for vanadium. As a result, all post-excavation sample results were less than LDEQ RECAP LSS and the remaining concentrations are acceptable and protective of human health and the environment. Copies of the analytical laboratory reports are provided in **Attachment A**.

Sulfate and pH were collected in accordance with the approved Closure Plan. However, RECAP does not provide a risk-based comparative standard for either constituent. Soil pH ranged between 5-9 standard units within the impoundment and sulfate concentration ranged in value from approximately 30,000 milligrams per kilogram (mg/kg) to less than 100 mg/kg.

2.4 Confirmation Groundwater Sample Collection

Three temporary monitoring wells (SB-01, SB-02, and SB-03) were installed in the upper permeable zone to characterize groundwater. The temporary monitoring wells were installed in accordance with the LDEQ-approved Closure Plan and the *Construction of Geotechnical Boreholes and Groundwater Monitoring Systems Handbook*, “the handbook”, prepared by the Louisiana Department of Environmental Quality (LDEQ) and the Louisiana Department of Transportation and Development (LDOTD), dated December 2000.

2.4.1 Groundwater Sample Locations

The temporary monitoring well locations are included on **Figure 4**. SB-01 was installed to a depth of 25 feet below ground surface (ft. bgs). SB-02 and SB-03 were installed to a depth of 25 ft. bgs; however, the water bearing zone was not encountered. These two locations were relocated and reinstalled as SB-02R and SB-03R. SB-02R was installed at approximately 35 ft. bgs, produced water, and was sampled; however, the replacement well location of SB-03 did not encounter the uppermost water bearing zone. SB-03R did not encounter a groundwater bearing zone up to 41 ft. bgs and a groundwater sample was not collected.

The temporary monitoring wells were plugged and abandoned after groundwater samples were collected.

2.4.2 Groundwater Sample Collection

Groundwater samples were collected from two temporary monitoring wells using a peristaltic pump and dedicated disposable sample tubing. Samples were placed

immediately into laboratory supplied sample containers, preserved at four degrees Celsius, transported, and relinquished to the laboratory for analyses using chain-of-custody SW-846 sampling protocol. Sampling forms are in **Attachment B**.

2.4.3 Groundwater Sample Analyses

Groundwater samples collected from the grid sampling locations were analyzed for the following parameters in accordance with the approved Closure Plan:

- pH
- Sulfate
- Arsenic
- Cadmium
- Copper
- Nickel
- Vanadium
- Zinc

Laboratory analyses were performed by Waypoint Analytical Louisiana, Inc., a LELAP approved laboratory.

2.4.4 Groundwater Sample Analytical Results

Groundwater sample results are summarized in **Table 2** and include a comparison to the LDEQ RECAP Groundwater Screening Standard. Sample results reported concentrations that exceed the Groundwater Screening Standard for arsenic, nickel, and vanadium. Prior to placement of waste in the Fly Ash Impoundment, Cleco developed and implemented a comprehensive semiannual groundwater monitoring program as required by LDEQ. Groundwater monitoring has been performed and submitted to LDEQ semiannually for the entirety of this period. During this time, there have been no verified statistically significant increases that would indicate groundwater has been affected by the impoundment. Groundwater monitoring of the uppermost permeable zone will continue through the closure period of the impoundment. The groundwater quality will be monitored semiannually and submitted to the LDEQ.

The Fly Ash Pond footprint was recently incorporated into the Ash Management Landfill permit. The former Fly Ash Pond area will be converted into additional landfill space and will accept waste that are similar to waste accepted at the impoundment. The existing groundwater monitoring network for the Ash Management footprint (that includes the Ash Management Landfill, Fly Ash and Bottom Ash ponds) will remain unchanged and continue to be monitored.

3.0 CLOSURE CERTIFICATION

At this time, closure requirements outlined in the facility's approved Closure Plan have been met. Cleco is requesting a closure inspection from the LDEQ as required by Louisiana Administrative Code (LAC) 33:407.E.

TABLE 1
CONFIRMATORY SOIL SAMPLE RESULTS

**TABLE 1
CLECO BRAME ENERGY CENTER
FLY ASH POND CLOSURE CONFIRMATION SAMPLING
SOIL DATA**

Chemical of Concern	LDEQ RECAP Soil_SSi	CS-1A	CS-1B	CS-2A	CS-2B	CS-3A	CS-3B	CS-4A	CS-4B	CS-5A	CS-5AR	CS-5B	CS-6A	CS-6B	CS-7A	CS-7B	CS-8A	CS-8B	CS-9A	CS-9B
pH	-	6.9	6.4	8.1	8.3	6.6	7.7	7.9	6.2	8	--	7.5	7.8	8.4	9	7.7	8.9	7.8	7.6	7.1
Sulfate	-	4,390	1,530	1,380	7,600	4,110	5,280	1,900	2,210	14,000	--	2,560	31,000	10,700	30,300	9,100	9,660	1,830	564	1,230
Arsenic	12	3.66	2.09	4.85	6.37	4.88	3.6	4.64	4.05	4.74	--	4.2	4.54	3.86	5.57	4.67	7.39	3.93	2.68	3.15
Cadmium	100	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	--	<0.200	<0.200	<0.200	0.227	0.291	<0.200	<0.200	<0.200	0.21
Copper	8,200	16.8	15.8	23.6	20.5	18.3	20.7	18.3	12.9	22.7	--	14.4	19	18.1	18.1	18.5	16.1	13.2	17.2	14.7
Nickel	4,100	25.0	23.7	22.8	27.1	24.7	24	23.7	19.7	22.1	--	21.8	24.1	26.4	23.1	26.8	23.4	16.7	21.3	24.7
Vanadium	1,400	32.5	28.2	43.50	41.5	37.3	40.7	36	27.7	65.2	37.9	32.1	33.4	33.2	44.5	38.1	45.3	23.5	28.8	36
Zinc	61,000	53.6	60.3	51.3	57.7	51.4	53.1	55.6	38.4	45.3	--	46.3	48.3	50.4	49.1	52.5	45.8	37.7	45.3	52.7

Chemical of Concern	LDEQ RECAP Soil_SSi	CS-10A	CS-10B	CS-11A	CS-11B	CS-12A	CS-12B	CS-13A	CS-13B	CS-14A	CS-14AR	CS-14B	CS-15A	CS-15B	CS-16A	CS-16B	CS-17A	CS-17B	CS-18A	CS-18AR	CS-18B
pH	-	6.4	7.8	8.5	7.6	6.7	7	7.9	8	9.5	--	8.4	8.4	7.7	8.1	9.2	7.6	6.6	8	--	7.1
Sulfate	-	455	4,370	7,370	3,350	5,330	11,300	7,330	8,060	25,800	--	6,760	6,790	4,460	6,990	9,330	1,810	529	3,220	--	212
Arsenic	12	4.55	5.13	4.39	5.15	5.28	4.29	2.57	3.44	5.78	--	4.13	4.49	4.48	6.82	3.03	3.77	2.92	5.34	--	3.36
Cadmium	100	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	--	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	0.21	--	<0.200
Copper	8,200	21.3	18.4	19.5	16.1	15.7	16.9	14.3	19.9	23.1	--	21.3	17.8	15	18.7	17.8	18.3	17.7	35	--	21.2
Nickel	4,100	31.4	24.4	23.3	25.3	20.1	26.5	25	26.5	25.8	--	26.4	24.7	20.1	27.2	26.2	22.4	23.5	22.5	--	28.3
Vanadium	1,400	43.4	44.8	37.6	30.1	36.30	34.7	33.1	40.5	78.5	35.6	42.4	41.2	31	34.7	34.7	30.8	35.4	67.3	26.7	33.3
Zinc	61,000	58.1	47.6	48.3	47	39.7	46	44.7	53.5	48.1	--	48.7	46.4	41.3	49.2	46.9	45.7	50.9	48.6	--	54.9

Chemical of Concern	LDEQ RECAP Soil_SSi	CS-19A	CS-19B	CS-20A	CS-20B	CS-21A	CS-21B	CS-22A	CS-22B	CS-23A	CS-23B	CS-24A	CS-24B	CS-25A	CS-25B	CS-26A	CS-26B	CS-27A	CS-27B	CS-28A	CS-28B
pH	-	5.4	7.8	7.3	7	8.3	6.9	7	7.6	7.3	7.5	8	7.9	8.7	8.2	8.9	7.6	7.6	7.7	7.4	8.7
Sulfate	-	10,500	9,730	54.5	6,050	5,460	6,530	12,600	1,200	1,750	7,580	10,500	6,830	16,400	5,920	1,470	461	216	103	152	498
Arsenic	12	2.7	3.17	2.39	4.4	6.04	3.88	3.93	2.81	6.88	3.13	3.65	2.94	5.02	2.42	4.68	3.38	3.17	2.43	5.11	2.42
Cadmium	100	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200
Copper	8,200	19.5	21	14.3	17	23.3	17	18.3	17	25.1	18.1	16.9	15.3	22.1	17.7	22.4	17.6	14.9	12.5	18.4	9.72
Nickel	4,100	23.8	26.6	19.5	23	25.1	25.2	23.5	20.7	24.4	25.3	24.9	20.1	26.5	26.8	25.7	22.6	26	18.4	25	13.1
Vanadium	1,400	25.2	36.1	29.2	39.5	38.3	33.4	32.40	31.7	40.6	34.8	30.7	25.3	49	37.8	38.4	30.7	29.6	23.5	43.3	22.7
Zinc	61,000	48.2	47.1	44.2	51.6	60.5	48.5	48.9	42.6	47	48.5	46.6	36.6	46.8	48.5	48	44.9	44.1	37.2	55.6	29.9

Chemical of Concern	LDEQ RECAP Soil_SSi	CS-29A	CS-29B	CS-30A	CS-30B	CS-31A	CS-31B	CS-32L	CS-33L	CS-34L	CS-35L	CS-36L	CS-37L	CS-38L	CS-39L	CS-40L	CS-41L	CS-42L
pH	-	7.7	8	9.8	8.6	8.4	8.1	8	8.1	8.7	8.1	7.4	7.5	7.9	8.2	8.3	7.2	7.9
Sulfate	-	1,140	27.9	767	442	543	54.1	267	283	88.1	68.2	75.2	49.2	49.3	121	50.6	2,690	249
Arsenic	12	5.8	3.05	1.15	6.28	3.26	8.81	3.09	3.49	4.61	4.77	3.56	3.99	3.53	4.35	2.96	3.54	3.55
Cadmium	100	<0.200	<0.200	<0.200	0.203	0.215	0.376	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	0.287	<0.200
Copper	8,200	26.9	9.82	4.34	22.7	8.03	14.7	8.68	3.38	10.6	18.4	17.5	13.3	13.9	14.6	12.7	15.4	9.32
Nickel	4,100	22.3	13.5	9.65	31.1	17.8	30.3	16.8	4.74	17.3	26.1	22.7	21.4	21.4	22.5	19.7	28.1	17.4
Vanadium	1,400	37.7	23.7	13.0	42.3	31.5	45.5	25.90	16.4	27	29.8	30.3	28.8	27.3	30.5	25.1	36.8	29.5
Zinc	61,000	53.3	27.0	16.1	59.2	36.3	58.2	33.8	10.9	29.2	50.9	40.4	38.3	38.2	38.2	33.2	56.6	32.7

Notes:

- 1) Louisiana Department of Environmental Quality (LDEQ), Risk Evaluation Corrective Action Program (RECAP)
- 2) RECAP Soil Screening Standard for Industrial Land Use (SSI)
- 3) Sample concentrations in mg/kg
- 4) Bold shaded sample results that exceed a LDEQ RECAP Screening Standard were over-excavated and resampled. The resampled concentration is shown adjacent with the sample identification suffix "R".

TABLE 2
CONFIRMATORY GROUNDWATER SAMPLE RESULTS

**TABLE 2
CLECO BRAME ENERGY CENTER
FLY ASH POND CLOSURE CONFIRMATION SAMPLING
GROUNDWATER DATA**

Chemical of Concern	LDEQ RECAP GW_SS	SB-01	SB-02R
pH	-	6.71	6.75
Sulfate	-	690	66.9
Arsenic	0.01	0.037	0.030
Cadmium	0.005	<0.0040	<0.0020
Copper	1.3	0.135	0.0268
Nickel	0.073	0.177	0.033
Vanadium	0.026	0.339	0.085
Zinc	1.1	0.441	0.081

Notes:

- 1) Louisiana Department of Environmental Quality (LDEQ), Risk Evaluation Corrective Action Program (RECAP) Groundwater Screening Standard (GW_SS)
- 2) Sample concentrations in mg/L
- 3) Sample results that exceed the GW_SS are shaded gray;

FIGURE 1

SITE MAP



Bottom Ash Pond

Fly Ash Pond

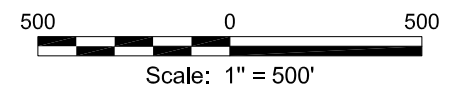
Ash Management Area Landfill

Legend

 Facilities

Reference

Base map comprised of Bing Maps aerial imagery and its data suppliers exported 06/18/21.



Site Map

Solid Waste Impoundment Closure Certification Report
Boyce, Rapides Parish, Louisiana

Cleco Power LLC
Brame Energy Center

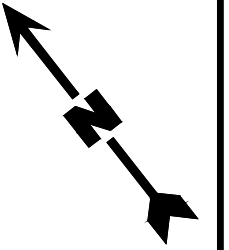


Drawn By	EGW	11/07/23
Checked By	CDL	11/07/23
Approved By	EKS	11/07/23

Project Number	002-302
Drawing Number	002-302-B050

1
Figure

FIGURE 2
SOIL SAMPLING LOCATION MAP

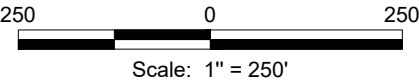


Legend

- Facility
- Soil Sampling Location (1 Acre Grid)
- Sloped Soil Sampling Location (1 Acre Grid)
- Soil Sample Location

Reference

Base map comprised of Bing Maps aerial imagery and its data suppliers exported 06/18/21.



Soil Sampling Location Map

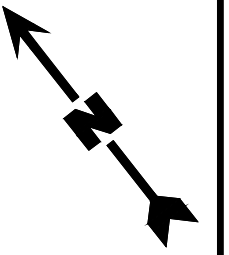
Solid Waste Impoundment Closure Certification Report
Boyce, Rapides Parish, Louisiana

Cleco Power LLC
Brame Energy Center








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Checked By	CDL	11/07/23
Approved By	EKS	11/07/23
Project Number	002-302	
Drawing Number	002-302-B051	2 Figure

FIGURE 3
ADDITIONAL EXCAVATION LOCATION MAP

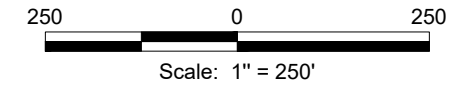


Legend

-  Facility
-  Soil Sampling Location (1 Acre Grid)
-  Sloped Soil Sampling Location (1 Acre Grid)
-  Additional Excavation (4")
-  Soil Sample Location

Reference

Base map comprised of Bing Maps aerial imagery from (c) 2023 Microsoft Corporation and its data suppliers.



Additional Excavation Location Map

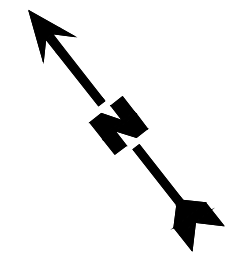
Solid Waste Impoundment Closure Certification Report
Boyce, Rapides Parish, Louisiana

Cleco Power LLC
Brame Energy Center







Drawn By	LMM	11/06/23
Checked By	LMH	11/06/23
Approved By	EGW	11/06/23
Project Number		3 Figure
002-302		
Drawing Number		
002-302-B049		

FIGURE 4
GROUNDWATER WELL LOCATION MAP



Legend

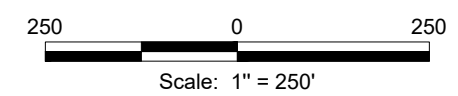
-  Facility
-  Soil Sampling Location (1 Acre Grid)
-  Sloped Soil Sampling Location (1 Acre Grid)
-  Groundwater Well Location

Note

All wells were plugged and abandoned at the completion of the sampling event.

Reference

Base map comprised of Bing Maps aerial imagery and its data suppliers exported 06/18/21.



Groundwater Well Location Map

Solid Waste Impoundment Closure Certification Report
Boyce, Rapides Parish, Louisiana

Cleco Power LLC
Brame Energy Center

Drawn By	EGW	11/17/23
Checked By	CDL	11/17/23
Approved By	EKS	11/17/23
Project Number		4 Figure
002-302		
Drawing Number		
002-302-B052		

APPENDIX A
ANALYTICAL LABORATORY REPORTS



9/21/2023

Providence Engineering
Emily Welch
1201 Main St.
Baton Rouge, LA, 70802

Ref: Report Number: 23-251-0024
Project Description: 002-302
Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Dear Emily Welch:

Waypoint Analytical Louisiana, Inc. received sample(s) on 9/8/2023 for the analyses presented in the following report. The above referenced project has been analyzed per your instructions. Unless otherwise noted, the analyses were performed in our laboratory in accordance with Standard Methods, The Solid Waste Manual SW-846, EPA Methods for Chemical Analysis of Water and Wastes and /or 40 CFR part 136.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance. Analyses reported which indicate "Field" for these parameters were analyzed by the client in the field. Results for solid samples are reported on an as received or "wet weight" basis unless otherwise specified.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2021) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

All quality control measures undertaken in accordance with Waypoint Analytical Louisiana, Inc. CompQAP990807A and revisions under the terms of the Louisiana Environmental Laboratory Accreditation Program (Certificate #02041) are within acceptance ranges established in that document with the exception of the items indicated and/or discussed in a Case Narrative.

The results are shown on the attached analysis sheet(s). Be aware that the time analyzed for certain samples (e.g. - BOD, CBOD, etc.) refer to the time the sample batch was begun and not necessarily to the time an individual sample was begun. Thank you for allowing Waypoint Analytical Louisiana, Inc. to serve you. Should I be of further assistance, if you have any questions or need additional information please contact me or client services.

Sincerely,

Amy Jackson
Project Manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis. This report may be reproduced in full only with the written permission of the laboratory and/or the entity to which it is addressed. Results contained herein relate only to the sample(s) submitted to the laboratory.





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Certification Summary

Laboratory ID: WP MLA: Waypoint Analytical Louisiana, Inc., Marrero, LA

State	Program	Lab ID	Expiration Date
Georgia	State Program	02041	06/30/2024
Louisiana	State Program - NELAP	02041	06/30/2024

Sample Summary Table

Report Number: 23-251-0024
Client Project Description: 002-302
Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
61653	CS - 1A	Solids	09/07/2023 08:50	09/08/2023
61654	CS - 1B	Solids	09/07/2023 08:55	09/08/2023
61655	CS - 2A	Solids	09/06/2023 16:00	09/08/2023
61656	CS - 2B	Solids	09/06/2023 16:00	09/08/2023
61657	CS - 3A	Solids	09/06/2023 14:45	09/08/2023
61658	CS - 3B	Solids	09/06/2023 15:00	09/08/2023
61659	CS - 4A	Solids	09/06/2023 14:40	09/08/2023
61660	CS - 4B	Solids	09/06/2023 14:50	09/08/2023
61661	CS - 5A	Solids	09/06/2023 13:05	09/08/2023
61662	CS - 5B	Solids	09/06/2023 13:05	09/08/2023
61663	CS - 6A	Solids	09/06/2023 12:40	09/08/2023
61664	CS - 6B	Solids	09/06/2023 12:40	09/08/2023
61665	CS - 7A	Solids	09/06/2023 12:35	09/08/2023
61666	CS - 7B	Solids	09/06/2023 12:30	09/08/2023
61667	CS - 8A	Solids	09/06/2023 11:30	09/08/2023
61668	CS - 8B	Solids	09/06/2023 11:35	09/08/2023
61669	CS - 9A	Solids	09/07/2023 09:00	09/08/2023
61670	CS - 9B	Solids	09/07/2023 09:05	09/08/2023
61671	CS - 10A	Solids	09/06/2023 15:55	09/08/2023
61672	CS - 10B	Solids	09/06/2023 15:55	09/08/2023
61673	CS - 11A	Solids	09/06/2023 15:05	09/08/2023
61674	CS - 11B	Solids	09/06/2023 15:05	09/08/2023
61677	CS - 13A	Solids	09/06/2023 13:00	09/08/2023
61678	CS - 13B	Solids	09/06/2023 13:00	09/08/2023
61679	CS - 14A	Solids	09/06/2023 12:45	09/08/2023
61680	CS - 14B	Solids	09/06/2023 12:45	09/08/2023

Sample Summary Table

Report Number: 23-251-0024
Client Project Description: 002-302
Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
61683	CS - 16A	Solids	09/06/2023 11:30	09/08/2023
61684	CS - 16B	Solids	09/06/2023 11:40	09/08/2023
61685	CS - 17A	Solids	09/07/2023 09:05	09/08/2023
61686	CS - 17B	Solids	09/07/2023 11:40	09/08/2023
61687	CS - 18A	Solids	09/06/2023 15:50	09/08/2023
61688	CS - 18B	Solids	09/06/2023 15:45	09/08/2023
61689	CS - 19A	Solids	09/06/2023 15:10	09/08/2023
61690	CS - 19B	Solids	09/06/2023 15:10	09/08/2023
61691	CS - 21A	Solids	09/06/2023 12:55	09/08/2023
61692	CS - 21B	Solids	09/06/2023 12:55	09/08/2023
61693	CS - 22A	Solids	09/06/2023 12:50	09/08/2023
61694	CS - 22B	Solids	09/06/2023 12:50	09/08/2023
61695	CS - 23A	Solids	09/06/2023 11:50	09/08/2023
61696	CS - 23B	Solids	09/06/2023 11:45	09/08/2023
61697	CS - 24A	Solids	09/06/2023 11:40	09/08/2023
61698	CS - 24B	Solids	09/06/2023 11:45	09/08/2023
61699	CS - 25A	Solids	09/06/2023 11:15	09/08/2023
61700	CS - 25B	Solids	09/06/2023 11:25	09/08/2023
61701	CS - 26A	Solids	09/06/2023 15:40	09/08/2023
61702	CS - 26B	Solids	09/06/2023 15:35	09/08/2023
61705	CS - 34L	Solids	09/07/2023 08:00	09/08/2023
61706	CS - 35L	Solids	09/07/2023 08:05	09/08/2023
61707	CS - 36L	Solids	09/07/2023 08:10	09/08/2023
61708	CS - 37L	Solids	09/07/2023 08:15	09/08/2023
61709	CS - 38L	Solids	09/07/2023 09:15	09/08/2023
61710	CS - 39L	Solids	09/07/2023 09:20	09/08/2023

Sample Summary Table

Report Number: 23-251-0024
Client Project Description: 002-302
Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
61711	CS - 40L	Solids	09/07/2023 08:20	09/08/2023
61712	BD-01	Solids	09/06/2023 15:50	09/08/2023
61713	BD-02	Solids	09/06/2023 11:20	09/08/2023
61714	BD-03	Solids	09/06/2023 14:40	09/08/2023
61723	CB-1	Solids	09/06/2023 09:15	09/08/2023
61724	CB-2	Solids	09/06/2023 09:15	09/08/2023
61725	CB-3	Solids	09/06/2023 09:20	09/08/2023
61726	CB-4	Solids	09/06/2023 09:20	09/08/2023
61727	CB-5	Solids	09/06/2023 09:25	09/08/2023
61728	CB-6	Solids	09/06/2023 09:25	09/08/2023
61729	CB-7	Solids	09/06/2023 09:25	09/08/2023
61730	CB-8	Solids	09/06/2023 09:25	09/08/2023



Client: Providence Engineering
Project: 002-302
Lab Report Number: 23-251-0024
Date: 9/21/2023

CASE NARRATIVE

Metals Analysis Method 6010D

Sample 61660 (CS - 4B)

Analyte: Arsenic

QC Batch No: A85900/A85764

The matrix spike and/or the matrix spike duplicate was outside quality control acceptance ranges. A post digestion spike was performed and passed quality control acceptance ranges. No matrix interference is suspected.

Sample 61660 (CS - 4B)

Analyte: Arsenic

QC Batch No: A85900/A85764

Relative Percent Difference (RPD) for the duplicate analysis was outside of the allowable QC limits.

Analyte: Cadmium

QC Batch No: A85970/A85764

CCB failed high sample non-detect

Analyte: Copper

QC Batch No: A85900/A85764

CCB fail LRB non-detect

Sample 61653 (CS - 1A)

Analyte: Copper

QC Batch No: A85900/A85764

Sample >10x CCB

Sample 61660 (CS - 4B)

Analyte: Copper

QC Batch No: A85900/A85764

Sample >10x CCB

Sample 61699 (CS - 25A)

Analyte: Arsenic

QC Batch No: A85917/A85848

The matrix spike and/or the matrix spike duplicate was outside quality control acceptance ranges. A post digestion spike was performed and passed quality control acceptance ranges. No matrix interference is suspected.

Sample 61699 (CS - 25A)

Analyte: Vanadium

QC Batch No: A85917/A85848

The matrix spike and/or the matrix spike duplicate was outside quality control acceptance ranges. A dilution test was performed and passed quality control acceptance ranges. No matrix interference is suspected.

Sample 61687 (CS - 18A)



Analyte: Arsenic

QC Batch No: A85917/A85850

The matrix spike and/or the matrix spike duplicate was outside quality control acceptance ranges. A post digestion spike was performed and passed quality control acceptance ranges. No matrix interference is suspected.

Sample 61687 (CS - 18A)

Analyte: Copper

QC Batch No: A85917/A85850

The matrix spike and/or the matrix spike duplicate was outside quality control acceptance ranges. A dilution test was performed and passed quality control acceptance ranges. No matrix interference is suspected.

Sample 61687 (CS - 18A)

Analyte: Vanadium

QC Batch No: A85917/A85850

The matrix spike, matrix spike duplicate and the dilution test were all outside of the quality control acceptance ranges. Matrix interference is suspected.

Sample 61375 (RW Composite)

Analyte: Arsenic

QC Batch No: A85970/A85903

The matrix spike and/or the matrix spike duplicate was outside quality control acceptance ranges. A post digestion spike was performed and passed quality control acceptance ranges. No matrix interference is suspected.

Sample 61375 (RW Composite)

Analyte: Cadmium

QC Batch No: A85970/A85903

CCB failed high sample non-detect

Sample 61713 (BD-02)

Analyte: Cadmium

QC Batch No: A85970/A85903

CCB failed high sample non-detect

Sample 61375 (RW Composite)

Analyte: Nickel

QC Batch No: A85970/A85903

LRB failed sample >10x LRB

Sample 61713 (BD-02)

Analyte: Nickel

QC Batch No: A85970/A85903

LRB failed sample >10x LRB

Sample 61714 (BD-03)

Analyte: Nickel

QC Batch No: A85970/A85903

LRB failed sample >10x LRB

Sample 61375 (RW Composite)

Analyte: Zinc

QC Batch No: A85970/A85903



The matrix spike and/or the matrix spike duplicate was outside quality control acceptance ranges. A dilution test was performed and passed quality control acceptance ranges. No matrix interference is suspected.

Anions by Ion Chromatography Method 9056

Sample 61660 (CS - 4B)

Analyte: Sulfate

QC Batch No: A85896/A85750

Matrix spike and/or matrix spike duplicate recoveries are outside of control limits. Acceptable LCS recovery indicates the system was in control, but the reported result could be affected by matrix interference.

Sample 61687 (CS - 18A)

Analyte: Sulfate

QC Batch No: A85897/A85751

Matrix spike and/or matrix spike duplicate recoveries are outside of control limits. Acceptable LCS recovery indicates the system was in control, but the reported result could be affected by matrix interference.

Sample 61699 (CS - 25A)

Analyte: Sulfate

QC Batch No: A85898/A85752

The MS/MSD recoveries are outside QC limits due to the level of analyte present in the parent sample relative to the spike level. RPD is based on the MS/MSD results and should be evaluated as laboratory duplicates.

00760

Providence Engineering
Emily Welch
1201 Main St.
Baton Rouge , LA 70802

Project 002-302
Information : Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61653**
Sample ID : **CS - 1A**

Matrix: **Solids**
Sampled: **9/7/2023 8:50**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	4390	mg/Kg	50.0	5	09/15/23 11:03	MJM	9056
pH	6.9	s.u.		1	09/13/23 16:20	MJM	9045D
Arsenic	3.66	mg/Kg	1.00	2	09/14/23 20:39	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/14/23 20:39	APB	6010D
Copper	16.8	mg/Kg	1.00	2	09/14/23 20:39	APB	6010D
Nickel	25.0	mg/Kg	0.500	2	09/14/23 20:39	APB	6010D
Vanadium	32.5	mg/Kg	1.00	2	09/14/23 20:39	APB	6010D
Zinc	53.6	mg/Kg	2.50	2	09/14/23 20:39	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

Providence Engineering
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Project 002-302
Information : Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61654**
Sample ID : **CS - 1B**

Matrix: **Solids**
Sampled: **9/7/2023 8:55**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	1530	mg/Kg	20.0	2	09/15/23 11:15	MJM	9056
pH	6.4	s.u.		1	09/13/23 16:20	MJM	9045D
Arsenic	2.09	mg/Kg	1.00	2	09/18/23 15:59	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/18/23 15:59	APB	6010D
Copper	15.8	mg/Kg	1.00	2	09/18/23 15:59	APB	6010D
Nickel	23.7	mg/Kg	0.500	2	09/18/23 15:59	APB	6010D
Vanadium	28.2	mg/Kg	1.00	2	09/18/23 15:59	APB	6010D
Zinc	60.3	mg/Kg	2.50	2	09/18/23 15:59	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

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Project 002-302
Information : Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61655**
Sample ID : **CS - 2A**

Matrix: **Solids**
Sampled: **9/6/2023 16:00**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	1380	mg/Kg	20.0	2	09/15/23 11:27	MJM	9056
pH	8.1	s.u.		1	09/13/23 16:20	MJM	9045D
Arsenic	4.85	mg/Kg	1.00	2	09/18/23 16:03	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/18/23 16:03	APB	6010D
Copper	23.6	mg/Kg	1.00	2	09/18/23 16:03	APB	6010D
Nickel	22.8	mg/Kg	0.500	2	09/18/23 16:03	APB	6010D
Vanadium	43.5	mg/Kg	1.00	2	09/18/23 16:03	APB	6010D
Zinc	51.3	mg/Kg	2.50	2	09/18/23 16:03	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

Providence Engineering
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Project 002-302
Information : Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61656**
Sample ID : **CS - 2B**

Matrix: **Solids**
Sampled: **9/6/2023 16:00**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	7600	mg/Kg	100	10	09/15/23 11:40	MJM	9056
pH	8.3	s.u.		1	09/13/23 16:20	MJM	9045D
Arsenic	6.37	mg/Kg	1.00	2	09/18/23 16:07	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/18/23 16:07	APB	6010D
Copper	20.5	mg/Kg	1.00	2	09/18/23 16:07	APB	6010D
Nickel	27.1	mg/Kg	0.500	2	09/18/23 16:07	APB	6010D
Vanadium	41.5	mg/Kg	1.00	2	09/18/23 16:07	APB	6010D
Zinc	57.7	mg/Kg	2.50	2	09/18/23 16:07	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

Providence Engineering
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Project 002-302
Information : Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61657**
Sample ID : **CS - 3A**

Matrix: **Solids**
Sampled: **9/6/2023 14:45**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	4110	mg/Kg	50.0	5	09/15/23 11:52	MJM	9056
pH	6.6	s.u.		1	09/13/23 16:20	MJM	9045D
Arsenic	4.88	mg/Kg	1.00	2	09/18/23 16:11	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/18/23 16:11	APB	6010D
Copper	18.3	mg/Kg	1.00	2	09/18/23 16:11	APB	6010D
Nickel	24.7	mg/Kg	0.500	2	09/18/23 16:11	APB	6010D
Vanadium	37.3	mg/Kg	1.00	2	09/18/23 16:11	APB	6010D
Zinc	51.4	mg/Kg	2.50	2	09/18/23 16:11	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

Providence Engineering
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Project 002-302
Information : Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61658**
Sample ID : **CS - 3B**

Matrix: **Solids**
Sampled: **9/6/2023 15:00**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	5280	mg/Kg	50.0	5	09/15/23 12:04	MJM	9056
pH	7.7	s.u.		1	09/13/23 16:20	MJM	9045D
Arsenic	3.60	mg/Kg	1.00	2	09/18/23 16:15	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/18/23 16:15	APB	6010D
Copper	20.7	mg/Kg	1.00	2	09/18/23 16:15	APB	6010D
Nickel	24.0	mg/Kg	0.500	2	09/18/23 16:15	APB	6010D
Vanadium	40.7	mg/Kg	1.00	2	09/18/23 16:15	APB	6010D
Zinc	53.1	mg/Kg	2.50	2	09/18/23 16:15	APB	6010D

**Qualifiers/
Definitions**

DF Dilution Factor MQL Method Quantitation Limit

00760

Providence Engineering
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Project 002-302
Information : Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61659**
Sample ID : **CS - 4A**

Matrix: **Solids**
Sampled: **9/6/2023 14:40**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	1900	mg/Kg	20.0	2	09/15/23 12:17	MJM	9056
pH	7.9	s.u.		1	09/13/23 16:20	MJM	9045D
Arsenic	4.64	mg/Kg	1.00	2	09/18/23 16:19	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/18/23 16:19	APB	6010D
Copper	18.3	mg/Kg	1.00	2	09/18/23 16:19	APB	6010D
Nickel	23.7	mg/Kg	0.500	2	09/18/23 16:19	APB	6010D
Vanadium	36.0	mg/Kg	1.00	2	09/18/23 16:19	APB	6010D
Zinc	55.6	mg/Kg	2.50	2	09/18/23 16:19	APB	6010D

**Qualifiers/
Definitions**

DF Dilution Factor

MQL Method Quantitation Limit

00760

Providence Engineering
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1201 Main St.
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Project 002-302
Information : Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61660**
Sample ID : **CS - 4B**

Matrix: **Solids**
Sampled: **9/6/2023 14:50**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	2210	mg/Kg	50.0	5	09/15/23 12:29	MJM	9056
pH	6.2	s.u.		1	09/13/23 16:20	MJM	9045D
Arsenic	4.05	mg/Kg	1.00	2	09/14/23 20:43	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/14/23 20:43	APB	6010D
Copper	12.9	mg/Kg	1.00	2	09/14/23 20:43	APB	6010D
Nickel	19.7	mg/Kg	0.500	2	09/14/23 20:43	APB	6010D
Vanadium	27.7	mg/Kg	1.00	2	09/14/23 20:43	APB	6010D
Zinc	38.4	mg/Kg	2.50	2	09/14/23 20:43	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

Providence Engineering
Emily Welch
1201 Main St.
Baton Rouge , LA 70802

Project 002-302
Information : Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61661**
Sample ID : **CS - 5A**

Matrix: **Solids**
Sampled: **9/6/2023 13:05**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	14000	mg/Kg	200	20	09/15/23 21:45	MJM	9056
pH	8.0	s.u.		1	09/13/23 16:20	MJM	9045D
Arsenic	4.74	mg/Kg	1.00	2	09/18/23 16:23	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/18/23 16:23	APB	6010D
Copper	22.7	mg/Kg	1.00	2	09/18/23 16:23	APB	6010D
Nickel	22.1	mg/Kg	0.500	2	09/18/23 16:23	APB	6010D
Vanadium	65.2	mg/Kg	1.00	2	09/18/23 16:23	APB	6010D
Zinc	45.3	mg/Kg	2.50	2	09/18/23 16:23	APB	6010D

**Qualifiers/
Definitions**

DF Dilution Factor

MQL Method Quantitation Limit

00760

Providence Engineering
Emily Welch
1201 Main St.
Baton Rouge , LA 70802

Project 002-302
Information : Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61662**
Sample ID : **CS - 5B**

Matrix: **Solids**
Sampled: **9/6/2023 13:05**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	2560	mg/Kg	50.0	5	09/15/23 13:56	MJM	9056
pH	7.5	s.u.		1	09/13/23 16:20	MJM	9045D
Arsenic	4.20	mg/Kg	1.00	2	09/18/23 16:26	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/18/23 16:26	APB	6010D
Copper	14.4	mg/Kg	1.00	2	09/18/23 16:26	APB	6010D
Nickel	21.8	mg/Kg	0.500	2	09/18/23 16:26	APB	6010D
Vanadium	32.1	mg/Kg	1.00	2	09/18/23 16:26	APB	6010D
Zinc	46.3	mg/Kg	2.50	2	09/18/23 16:26	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

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Project 002-302
Information : Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61663**
Sample ID : **CS - 6A**

Matrix: **Solids**
Sampled: **9/6/2023 12:40**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	31000	mg/Kg	500	50	09/15/23 21:57	MJM	9056
pH	7.8	s.u.		1	09/13/23 16:20	MJM	9045D
Arsenic	4.54	mg/Kg	1.00	2	09/18/23 16:30	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/18/23 16:30	APB	6010D
Copper	19.0	mg/Kg	1.00	2	09/18/23 16:30	APB	6010D
Nickel	24.1	mg/Kg	0.500	2	09/18/23 16:30	APB	6010D
Vanadium	33.4	mg/Kg	1.00	2	09/18/23 16:30	APB	6010D
Zinc	48.3	mg/Kg	2.50	2	09/18/23 16:30	APB	6010D

**Qualifiers/
Definitions**

DF Dilution Factor MQL Method Quantitation Limit

00760

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Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61664**
Sample ID : **CS - 6B**

Matrix: **Solids**
Sampled: **9/6/2023 12:40**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	10700	mg/Kg	100	10	09/15/23 14:20	MJM	9056
pH	8.4	s.u.		1	09/13/23 16:20	MJM	9045D
Arsenic	3.86	mg/Kg	1.00	2	09/18/23 16:43	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/18/23 16:43	APB	6010D
Copper	18.1	mg/Kg	1.00	2	09/18/23 16:43	APB	6010D
Nickel	26.4	mg/Kg	0.500	2	09/18/23 16:43	APB	6010D
Vanadium	33.2	mg/Kg	1.00	2	09/18/23 16:43	APB	6010D
Zinc	50.4	mg/Kg	2.50	2	09/18/23 16:43	APB	6010D

**Qualifiers/
Definitions**

DF Dilution Factor MQL Method Quantitation Limit

00760

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Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61665**

Matrix: **Solids**

Sample ID : **CS - 7A**

Sampled: **9/6/2023 12:35**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	30300	mg/Kg	500	50	09/15/23 22:09	MJM	9056
pH	9.0	s.u.		1	09/13/23 16:20	MJM	9045D
Arsenic	5.57	mg/Kg	1.00	2	09/18/23 16:47	APB	6010D
Cadmium	0.227	mg/Kg	0.200	2	09/18/23 16:47	APB	6010D
Copper	18.1	mg/Kg	1.00	2	09/18/23 16:47	APB	6010D
Nickel	23.1	mg/Kg	0.500	2	09/18/23 16:47	APB	6010D
Vanadium	44.5	mg/Kg	1.00	2	09/18/23 16:47	APB	6010D
Zinc	49.1	mg/Kg	2.50	2	09/18/23 16:47	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

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Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61666**
Sample ID : **CS - 7B**

Matrix: **Solids**
Sampled: **9/6/2023 12:30**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	9100	mg/Kg	100	10	09/15/23 14:45	MJM	9056
pH	7.7	s.u.		1	09/13/23 16:20	MJM	9045D
Arsenic	4.67	mg/Kg	1.00	2	09/18/23 16:51	APB	6010D
Cadmium	0.291	mg/Kg	0.200	2	09/18/23 16:51	APB	6010D
Copper	18.5	mg/Kg	1.00	2	09/18/23 16:51	APB	6010D
Nickel	26.8	mg/Kg	0.500	2	09/18/23 16:51	APB	6010D
Vanadium	38.1	mg/Kg	1.00	2	09/18/23 16:51	APB	6010D
Zinc	52.5	mg/Kg	2.50	2	09/18/23 16:51	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

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Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61667**
Sample ID : **CS - 8A**

Matrix: **Solids**
Sampled: **9/6/2023 11:30**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	9660	mg/Kg	100	10	09/15/23 14:57	MJM	9056
pH	8.9	s.u.		1	09/13/23 16:20	MJM	9045D
Arsenic	7.39	mg/Kg	1.00	2	09/19/23 18:10	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/19/23 18:10	APB	6010D
Copper	16.1	mg/Kg	1.00	2	09/19/23 18:10	APB	6010D
Nickel	23.4	mg/Kg	0.500	2	09/19/23 18:10	APB	6010D
Vanadium	45.3	mg/Kg	1.00	2	09/19/23 18:10	APB	6010D
Zinc	45.8	mg/Kg	2.50	2	09/19/23 18:10	APB	6010D

**Qualifiers/
Definitions**

DF Dilution Factor MQL Method Quantitation Limit

00760

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Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61668**
Sample ID : **CS - 8B**

Matrix: **Solids**
Sampled: **9/6/2023 11:35**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	1830	mg/Kg	20.0	2	09/15/23 15:10	MJM	9056
pH	7.8	s.u.		1	09/13/23 16:20	MJM	9045D
Arsenic	3.93	mg/Kg	1.00	2	09/19/23 18:14	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/19/23 18:14	APB	6010D
Copper	13.2	mg/Kg	1.00	2	09/19/23 18:14	APB	6010D
Nickel	16.7	mg/Kg	0.500	2	09/19/23 18:14	APB	6010D
Vanadium	23.5	mg/Kg	1.00	2	09/19/23 18:14	APB	6010D
Zinc	37.7	mg/Kg	2.50	2	09/19/23 18:14	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

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Information : Cleco Brame-Fly Ash Pond
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Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61669**
Sample ID : **CS - 9A**

Matrix: **Solids**
Sampled: **9/7/2023 9:00**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	564	mg/Kg	10.0	1	09/14/23 20:19	MJM	9056
pH	7.6	s.u.		1	09/13/23 16:20	MJM	9045D
Arsenic	2.68	mg/Kg	1.00	2	09/19/23 18:19	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/19/23 18:19	APB	6010D
Copper	17.2	mg/Kg	1.00	2	09/19/23 18:19	APB	6010D
Nickel	21.3	mg/Kg	0.500	2	09/19/23 18:19	APB	6010D
Vanadium	28.8	mg/Kg	1.00	2	09/19/23 18:19	APB	6010D
Zinc	45.3	mg/Kg	2.50	2	09/19/23 18:19	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

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Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61670**
Sample ID : **CS - 9B**

Matrix: **Solids**
Sampled: **9/7/2023 9:05**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	1230	mg/Kg	20.0	2	09/15/23 15:22	MJM	9056
pH	7.1	s.u.		1	09/13/23 16:20	MJM	9045D
Arsenic	3.15	mg/Kg	1.00	2	09/19/23 18:23	APB	6010D
Cadmium	0.210	mg/Kg	0.200	2	09/19/23 18:23	APB	6010D
Copper	14.7	mg/Kg	1.00	2	09/19/23 18:23	APB	6010D
Nickel	24.7	mg/Kg	0.500	2	09/19/23 18:23	APB	6010D
Vanadium	36.0	mg/Kg	1.00	2	09/19/23 18:23	APB	6010D
Zinc	52.7	mg/Kg	2.50	2	09/19/23 18:23	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

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Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61671**
Sample ID : **CS - 10A**

Matrix: **Solids**
Sampled: **9/6/2023 15:55**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	455	mg/Kg	10.0	1	09/14/23 21:58	MJM	9056
pH	6.4	s.u.		1	09/13/23 16:20	MJM	9045D
Arsenic	4.55	mg/Kg	1.00	2	09/19/23 18:28	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/19/23 18:28	APB	6010D
Copper	21.3	mg/Kg	1.00	2	09/19/23 18:28	APB	6010D
Nickel	31.4	mg/Kg	0.500	2	09/19/23 18:28	APB	6010D
Vanadium	43.4	mg/Kg	1.00	2	09/19/23 18:28	APB	6010D
Zinc	58.1	mg/Kg	2.50	2	09/19/23 18:28	APB	6010D

**Qualifiers/
Definitions**

DF Dilution Factor MQL Method Quantitation Limit

00760

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Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61672**
Sample ID : **CS - 10B**

Matrix: **Solids**
Sampled: **9/6/2023 15:55**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	4370	mg/Kg	50.0	5	09/15/23 15:34	MJM	9056
pH	7.8	s.u.		1	09/13/23 16:20	MJM	9045D
Arsenic	5.13	mg/Kg	1.00	2	09/19/23 18:32	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/19/23 18:32	APB	6010D
Copper	18.4	mg/Kg	1.00	2	09/19/23 18:32	APB	6010D
Nickel	24.4	mg/Kg	0.500	2	09/19/23 18:32	APB	6010D
Vanadium	44.8	mg/Kg	1.00	2	09/19/23 18:32	APB	6010D
Zinc	47.6	mg/Kg	2.50	2	09/19/23 18:32	APB	6010D

**Qualifiers/
Definitions**

DF Dilution Factor MQL Method Quantitation Limit

00760

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Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61673**
Sample ID : **CS - 11A**

Matrix: **Solids**
Sampled: **9/6/2023 15:05**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	7370	mg/Kg	100	10	09/15/23 16:24	MJM	9056
pH	8.5	s.u.		1	09/18/23 14:30	MJM	9045D
Arsenic	4.39	mg/Kg	1.00	2	09/19/23 18:36	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/19/23 18:36	APB	6010D
Copper	19.5	mg/Kg	1.00	2	09/19/23 18:36	APB	6010D
Nickel	23.3	mg/Kg	0.500	2	09/19/23 18:36	APB	6010D
Vanadium	37.6	mg/Kg	1.00	2	09/19/23 18:36	APB	6010D
Zinc	48.3	mg/Kg	2.50	2	09/19/23 18:36	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

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Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61674**
Sample ID : **CS - 11B**

Matrix: **Solids**
Sampled: **9/6/2023 15:05**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	3350	mg/Kg	50.0	5	09/15/23 16:36	MJM	9056
pH	7.6	s.u.		1	09/18/23 14:30	MJM	9045D
Arsenic	5.15	mg/Kg	1.00	2	09/19/23 18:40	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/19/23 18:40	APB	6010D
Copper	16.1	mg/Kg	1.00	2	09/19/23 18:40	APB	6010D
Nickel	25.3	mg/Kg	0.500	2	09/19/23 18:40	APB	6010D
Vanadium	30.1	mg/Kg	1.00	2	09/19/23 18:40	APB	6010D
Zinc	47.0	mg/Kg	2.50	2	09/19/23 18:40	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

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Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61677**
Sample ID : **CS - 13A**

Matrix: **Solids**
Sampled: **9/6/2023 13:00**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	7330	mg/Kg	100	10	09/15/23 16:48	MJM	9056
pH	7.9	s.u.		1	09/18/23 14:30	MJM	9045D
Arsenic	2.57	mg/Kg	1.00	2	09/19/23 18:44	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/19/23 18:44	APB	6010D
Copper	14.3	mg/Kg	1.00	2	09/19/23 18:44	APB	6010D
Nickel	25.0	mg/Kg	0.500	2	09/19/23 18:44	APB	6010D
Vanadium	33.1	mg/Kg	1.00	2	09/19/23 18:44	APB	6010D
Zinc	44.7	mg/Kg	2.50	2	09/19/23 18:44	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

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Information : Cleco Brame-Fly Ash Pond
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Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61678**
Sample ID : **CS - 13B**

Matrix: **Solids**
Sampled: **9/6/2023 13:00**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	8060	mg/Kg	100	10	09/15/23 17:01	MJM	9056
pH	8.0	s.u.		1	09/18/23 14:30	MJM	9045D
Arsenic	3.44	mg/Kg	1.00	2	09/19/23 18:49	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/19/23 18:49	APB	6010D
Copper	19.9	mg/Kg	1.00	2	09/19/23 18:49	APB	6010D
Nickel	26.5	mg/Kg	0.500	2	09/19/23 18:49	APB	6010D
Vanadium	40.5	mg/Kg	1.00	2	09/19/23 18:49	APB	6010D
Zinc	53.5	mg/Kg	2.50	2	09/19/23 18:49	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

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Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61679**
Sample ID : **CS - 14A**

Matrix: **Solids**
Sampled: **9/6/2023 12:45**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	25800	mg/Kg	500	50	09/18/23 12:06	MJM	9056
pH	9.5	s.u.		1	09/18/23 14:30	MJM	9045D
Arsenic	5.78	mg/Kg	1.00	2	09/19/23 19:02	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/19/23 19:02	APB	6010D
Copper	23.1	mg/Kg	1.00	2	09/19/23 19:02	APB	6010D
Nickel	25.8	mg/Kg	0.500	2	09/19/23 19:02	APB	6010D
Vanadium	78.5	mg/Kg	1.00	2	09/19/23 19:02	APB	6010D
Zinc	48.1	mg/Kg	2.50	2	09/19/23 19:02	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

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Information : Cleco Brame-Fly Ash Pond
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Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61680**
Sample ID : **CS - 14B**

Matrix: **Solids**
Sampled: **9/6/2023 12:45**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	6760	mg/Kg	100	10	09/15/23 17:25	MJM	9056
pH	8.4	s.u.		1	09/18/23 14:30	MJM	9045D
Arsenic	4.13	mg/Kg	1.00	2	09/19/23 19:06	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/19/23 19:06	APB	6010D
Copper	21.3	mg/Kg	1.00	2	09/19/23 19:06	APB	6010D
Nickel	26.4	mg/Kg	0.500	2	09/19/23 19:06	APB	6010D
Vanadium	42.4	mg/Kg	1.00	2	09/19/23 19:06	APB	6010D
Zinc	48.7	mg/Kg	2.50	2	09/19/23 19:06	APB	6010D

**Qualifiers/
Definitions**

DF Dilution Factor MQL Method Quantitation Limit

00760

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Information : Cleco Brame-Fly Ash Pond
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Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61683**
Sample ID : **CS - 16A**

Matrix: **Solids**
Sampled: **9/6/2023 11:30**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	6990	mg/Kg	100	10	09/15/23 17:38	MJM	9056
pH	8.1	s.u.		1	09/18/23 14:30	MJM	9045D
Arsenic	6.82	mg/Kg	1.00	2	09/19/23 19:11	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/19/23 19:11	APB	6010D
Copper	18.7	mg/Kg	1.00	2	09/19/23 19:11	APB	6010D
Nickel	27.2	mg/Kg	0.500	2	09/19/23 19:11	APB	6010D
Vanadium	34.7	mg/Kg	1.00	2	09/19/23 19:11	APB	6010D
Zinc	49.2	mg/Kg	2.50	2	09/19/23 19:11	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

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Project 002-302
Information : Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61684**
Sample ID : **CS - 16B**

Matrix: **Solids**
Sampled: **9/6/2023 11:40**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	9330	mg/Kg	100	10	09/15/23 17:50	MJM	9056
pH	9.2	s.u.		1	09/18/23 14:30	MJM	9045D
Arsenic	3.03	mg/Kg	1.00	2	09/19/23 19:15	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/19/23 19:15	APB	6010D
Copper	17.8	mg/Kg	1.00	2	09/19/23 19:15	APB	6010D
Nickel	26.2	mg/Kg	0.500	2	09/19/23 19:15	APB	6010D
Vanadium	34.7	mg/Kg	1.00	2	09/19/23 19:15	APB	6010D
Zinc	46.9	mg/Kg	2.50	2	09/19/23 19:15	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

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Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61685**
Sample ID : **CS - 17A**

Matrix: **Solids**
Sampled: **9/7/2023 9:05**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	1810	mg/Kg	20.0	2	09/15/23 18:03	MJM	9056
pH	7.6	s.u.		1	09/18/23 14:30	MJM	9045D
Arsenic	3.77	mg/Kg	1.00	2	09/19/23 19:20	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/19/23 19:20	APB	6010D
Copper	18.3	mg/Kg	1.00	2	09/19/23 19:20	APB	6010D
Nickel	22.4	mg/Kg	0.500	2	09/19/23 19:20	APB	6010D
Vanadium	30.8	mg/Kg	1.00	2	09/19/23 19:20	APB	6010D
Zinc	45.7	mg/Kg	2.50	2	09/19/23 19:20	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

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Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61686**
Sample ID : **CS - 17B**

Matrix: **Solids**
Sampled: **9/7/2023 11:40**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	529	mg/Kg	10.0	1	09/15/23 00:51	MJM	9056
pH	6.6	s.u.		1	09/18/23 14:30	MJM	9045D
Arsenic	2.92	mg/Kg	1.00	2	09/19/23 19:24	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/19/23 19:24	APB	6010D
Copper	17.7	mg/Kg	1.00	2	09/19/23 19:24	APB	6010D
Nickel	23.5	mg/Kg	0.500	2	09/19/23 19:24	APB	6010D
Vanadium	35.4	mg/Kg	1.00	2	09/19/23 19:24	APB	6010D
Zinc	50.9	mg/Kg	2.50	2	09/19/23 19:24	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

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Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61687**
Sample ID : **CS - 18A**

Matrix: **Solids**
Sampled: **9/6/2023 15:50**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	3220	mg/Kg	50.0	5	09/15/23 18:15	MJM	9056
pH	8.0	s.u.		1	09/18/23 14:30	MJM	9045D
Arsenic	5.34	mg/Kg	1.00	2	09/19/23 19:28	APB	6010D
Cadmium	0.210	mg/Kg	0.200	2	09/19/23 19:28	APB	6010D
Copper	35.0	mg/Kg	1.00	2	09/19/23 19:28	APB	6010D
Nickel	22.5	mg/Kg	0.500	2	09/19/23 19:28	APB	6010D
Vanadium	67.3	mg/Kg	1.00	2	09/19/23 19:28	APB	6010D
Zinc	48.6	mg/Kg	2.50	2	09/19/23 19:28	APB	6010D

**Qualifiers/
Definitions**

DF Dilution Factor MQL Method Quantitation Limit

00760

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Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61688**
Sample ID : **CS - 18B**

Matrix: **Solids**
Sampled: **9/6/2023 15:45**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	212	mg/Kg	10.0	1	09/15/23 01:40	MJM	9056
pH	7.1	s.u.		1	09/18/23 14:30	MJM	9045D
Arsenic	3.36	mg/Kg	1.00	2	09/19/23 19:59	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/20/23 11:21	APB	6010D
Copper	21.2	mg/Kg	1.00	2	09/19/23 19:59	APB	6010D
Nickel	28.3	mg/Kg	0.500	2	09/19/23 19:59	APB	6010D
Vanadium	33.3	mg/Kg	1.00	2	09/19/23 19:59	APB	6010D
Zinc	54.9	mg/Kg	2.50	2	09/19/23 19:59	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

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Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61689**
Sample ID : **CS - 19A**

Matrix: **Solids**
Sampled: **9/6/2023 15:10**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	10500	mg/Kg	100	10	09/15/23 19:29	MJM	9056
pH	5.4	s.u.		1	09/18/23 14:30	MJM	9045D
Arsenic	2.70	mg/Kg	1.00	2	09/19/23 20:03	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/20/23 11:25	APB	6010D
Copper	19.5	mg/Kg	1.00	2	09/19/23 20:03	APB	6010D
Nickel	23.8	mg/Kg	0.500	2	09/19/23 20:03	APB	6010D
Vanadium	25.2	mg/Kg	1.00	2	09/19/23 20:03	APB	6010D
Zinc	48.2	mg/Kg	2.50	2	09/19/23 20:03	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

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Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61690**
Sample ID : **CS - 19B**

Matrix: **Solids**
Sampled: **9/6/2023 15:10**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	9730	mg/Kg	100	10	09/15/23 19:41	MJM	9056
pH	7.8	s.u.		1	09/18/23 14:30	MJM	9045D
Arsenic	3.17	mg/Kg	1.00	2	09/19/23 20:07	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/20/23 11:29	APB	6010D
Copper	21.0	mg/Kg	1.00	2	09/19/23 20:07	APB	6010D
Nickel	26.6	mg/Kg	0.500	2	09/19/23 20:07	APB	6010D
Vanadium	36.1	mg/Kg	1.00	2	09/19/23 20:07	APB	6010D
Zinc	47.1	mg/Kg	2.50	2	09/19/23 20:07	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

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Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61691**
Sample ID : **CS - 21A**

Matrix: **Solids**
Sampled: **9/6/2023 12:55**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	5460	mg/Kg	50.0	5	09/15/23 19:54	MJM	9056
pH	8.3	s.u.		1	09/18/23 14:30	MJM	9045D
Arsenic	6.04	mg/Kg	1.00	2	09/19/23 14:37	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/19/23 14:37	APB	6010D
Copper	23.3	mg/Kg	1.00	2	09/19/23 14:37	APB	6010D
Nickel	25.1	mg/Kg	0.500	2	09/19/23 14:37	APB	6010D
Vanadium	38.3	mg/Kg	1.00	2	09/19/23 14:37	APB	6010D
Zinc	60.5	mg/Kg	2.50	2	09/19/23 14:37	APB	6010D

**Qualifiers/
Definitions**

DF Dilution Factor MQL Method Quantitation Limit

00760

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Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61692**
Sample ID : **CS - 21B**

Matrix: **Solids**
Sampled: **9/6/2023 12:55**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	6530	mg/Kg	100	10	09/15/23 20:06	MJM	9056
pH	6.9	s.u.		1	09/18/23 14:30	MJM	9045D
Arsenic	3.88	mg/Kg	1.00	2	09/19/23 14:41	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/19/23 14:41	APB	6010D
Copper	17.0	mg/Kg	1.00	2	09/19/23 14:41	APB	6010D
Nickel	25.2	mg/Kg	0.500	2	09/19/23 14:41	APB	6010D
Vanadium	33.4	mg/Kg	1.00	2	09/19/23 14:41	APB	6010D
Zinc	48.5	mg/Kg	2.50	2	09/19/23 14:41	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

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Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61693**
Sample ID : **CS - 22A**

Matrix: **Solids**
Sampled: **9/6/2023 12:50**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	12600	mg/Kg	200	20	09/18/23 12:18	MJM	9056
pH	7.0	s.u.		1	09/18/23 14:30	MJM	9045D
Arsenic	3.93	mg/Kg	1.00	2	09/19/23 14:45	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/19/23 14:45	APB	6010D
Copper	18.3	mg/Kg	1.00	2	09/19/23 14:45	APB	6010D
Nickel	23.5	mg/Kg	0.500	2	09/19/23 14:45	APB	6010D
Vanadium	32.4	mg/Kg	1.00	2	09/19/23 14:45	APB	6010D
Zinc	48.9	mg/Kg	2.50	2	09/19/23 14:45	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

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Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61694**
Sample ID : **CS - 22B**

Matrix: **Solids**
Sampled: **9/6/2023 12:50**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	1200	mg/Kg	100	10	09/15/23 20:31	MJM	9056
pH	7.6	s.u.		1	09/18/23 14:30	MJM	9045D
Arsenic	2.81	mg/Kg	1.00	2	09/19/23 14:49	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/19/23 14:49	APB	6010D
Copper	17.0	mg/Kg	1.00	2	09/19/23 14:49	APB	6010D
Nickel	20.7	mg/Kg	0.500	2	09/19/23 14:49	APB	6010D
Vanadium	31.7	mg/Kg	1.00	2	09/19/23 14:49	APB	6010D
Zinc	42.6	mg/Kg	2.50	2	09/19/23 14:49	APB	6010D

**Qualifiers/
Definitions**

DF Dilution Factor MQL Method Quantitation Limit

00760

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Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61695**
Sample ID : **CS - 23A**

Matrix: **Solids**
Sampled: **9/6/2023 11:50**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	1750	mg/Kg	100	10	09/15/23 20:43	MJM	9056
pH	7.3	s.u.		1	09/18/23 14:30	MJM	9045D
Arsenic	6.88	mg/Kg	1.00	2	09/19/23 15:03	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/19/23 15:03	APB	6010D
Copper	25.1	mg/Kg	1.00	2	09/19/23 15:03	APB	6010D
Nickel	24.4	mg/Kg	0.500	2	09/19/23 15:03	APB	6010D
Vanadium	40.6	mg/Kg	1.00	2	09/19/23 15:03	APB	6010D
Zinc	47.0	mg/Kg	2.50	2	09/19/23 15:03	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

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Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61696**
Sample ID : **CS - 23B**

Matrix: **Solids**
Sampled: **9/6/2023 11:45**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	7580	mg/Kg	100	10	09/15/23 20:55	MJM	9056
pH	7.5	s.u.		1	09/18/23 14:30	MJM	9045D
Arsenic	3.13	mg/Kg	1.00	2	09/19/23 15:07	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/19/23 15:07	APB	6010D
Copper	18.1	mg/Kg	1.00	2	09/19/23 15:07	APB	6010D
Nickel	25.3	mg/Kg	0.500	2	09/19/23 15:07	APB	6010D
Vanadium	34.8	mg/Kg	1.00	2	09/19/23 15:07	APB	6010D
Zinc	48.5	mg/Kg	2.50	2	09/19/23 15:07	APB	6010D

**Qualifiers/
Definitions**

DF Dilution Factor

MQL Method Quantitation Limit

00760

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Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61697**
Sample ID : **CS - 24A**

Matrix: **Solids**
Sampled: **9/6/2023 11:40**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	10500	mg/Kg	100	10	09/19/23 11:32	MJM	9056
pH	8.0	s.u.		1	09/18/23 15:46	APB	9045D
Arsenic	3.65	mg/Kg	1.00	2	09/19/23 15:11	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/19/23 15:11	APB	6010D
Copper	16.9	mg/Kg	1.00	2	09/19/23 15:11	APB	6010D
Nickel	24.9	mg/Kg	0.500	2	09/19/23 15:11	APB	6010D
Vanadium	30.7	mg/Kg	1.00	2	09/19/23 15:11	APB	6010D
Zinc	46.6	mg/Kg	2.50	2	09/19/23 15:11	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

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Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61698**
Sample ID : **CS - 24B**

Matrix: **Solids**
Sampled: **9/6/2023 11:45**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	6830	mg/Kg	100	10	09/19/23 11:44	MJM	9056
pH	7.9	s.u.		1	09/18/23 15:46	APB	9045D
Arsenic	2.94	mg/Kg	1.00	2	09/19/23 15:16	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/19/23 15:16	APB	6010D
Copper	15.3	mg/Kg	1.00	2	09/19/23 15:16	APB	6010D
Nickel	20.1	mg/Kg	0.500	2	09/19/23 15:16	APB	6010D
Vanadium	25.3	mg/Kg	1.00	2	09/19/23 15:16	APB	6010D
Zinc	36.6	mg/Kg	2.50	2	09/19/23 15:16	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

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Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61699**
Sample ID : **CS - 25A**

Matrix: **Solids**
Sampled: **9/6/2023 11:15**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	16400	mg/Kg	200	20	09/19/23 16:28	MJM	9056
pH	8.7	s.u.		1	09/18/23 15:46	APB	9045D
Arsenic	5.02	mg/Kg	1.00	2	09/19/23 15:20	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/19/23 15:20	APB	6010D
Copper	22.1	mg/Kg	1.00	2	09/19/23 15:20	APB	6010D
Nickel	26.5	mg/Kg	0.500	2	09/19/23 15:20	APB	6010D
Vanadium	49.0	mg/Kg	1.00	2	09/19/23 15:20	APB	6010D
Zinc	46.8	mg/Kg	2.50	2	09/19/23 15:20	APB	6010D

**Qualifiers/
Definitions**

DF Dilution Factor

MQL Method Quantitation Limit

00760

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Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61700**
Sample ID : **CS - 25B**

Matrix: **Solids**
Sampled: **9/6/2023 11:25**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	5920	mg/Kg	100	10	09/19/23 12:33	MJM	9056
pH	8.2	s.u.		1	09/18/23 15:46	APB	9045D
Arsenic	2.42	mg/Kg	1.00	2	09/19/23 15:41	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/19/23 15:41	APB	6010D
Copper	17.7	mg/Kg	1.00	2	09/19/23 15:41	APB	6010D
Nickel	26.8	mg/Kg	0.500	2	09/19/23 15:41	APB	6010D
Vanadium	37.8	mg/Kg	1.00	2	09/19/23 15:41	APB	6010D
Zinc	48.5	mg/Kg	2.50	2	09/19/23 15:41	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

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Project 002-302
Information : Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61701**
Sample ID : **CS - 26A**

Matrix: **Solids**
Sampled: **9/6/2023 15:40**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	1470	mg/Kg	100	10	09/19/23 12:46	MJM	9056
pH	8.9	s.u.		1	09/18/23 15:46	APB	9045D
Arsenic	4.68	mg/Kg	1.00	2	09/19/23 15:55	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/19/23 15:55	APB	6010D
Copper	22.4	mg/Kg	1.00	2	09/19/23 15:55	APB	6010D
Nickel	25.7	mg/Kg	0.500	2	09/19/23 15:55	APB	6010D
Vanadium	38.4	mg/Kg	1.00	2	09/19/23 15:55	APB	6010D
Zinc	48.0	mg/Kg	2.50	2	09/19/23 15:55	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

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Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61702**
Sample ID : **CS - 26B**

Matrix: **Solids**
Sampled: **9/6/2023 15:35**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	461	mg/Kg	10.0	1	09/19/23 17:05	MJM	9056
pH	7.6	s.u.		1	09/18/23 15:46	APB	9045D
Arsenic	3.38	mg/Kg	1.00	2	09/19/23 15:59	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/19/23 15:59	APB	6010D
Copper	17.6	mg/Kg	1.00	2	09/19/23 15:59	APB	6010D
Nickel	22.6	mg/Kg	0.500	2	09/19/23 15:59	APB	6010D
Vanadium	30.7	mg/Kg	1.00	2	09/19/23 15:59	APB	6010D
Zinc	44.9	mg/Kg	2.50	2	09/19/23 15:59	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

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Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61705**
Sample ID : **CS - 34L**

Matrix: **Solids**
Sampled: **9/7/2023 8:00**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	88.1	mg/Kg	10.0	1	09/19/23 17:17	MJM	9056
pH	8.7	s.u.		1	09/18/23 15:46	APB	9045D
Arsenic	4.61	mg/Kg	1.00	2	09/19/23 16:03	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/19/23 16:03	APB	6010D
Copper	10.6	mg/Kg	1.00	2	09/19/23 16:03	APB	6010D
Nickel	17.3	mg/Kg	0.500	2	09/19/23 16:03	APB	6010D
Vanadium	27.0	mg/Kg	1.00	2	09/19/23 16:03	APB	6010D
Zinc	29.2	mg/Kg	2.50	2	09/19/23 16:03	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

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REPORT OF ANALYSIS

Lab No : **61706**
Sample ID : **CS - 35L**

Matrix: **Solids**
Sampled: **9/7/2023 8:05**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	68.2	mg/Kg	10.0	1	09/19/23 17:30	MJM	9056
pH	8.1	s.u.		1	09/18/23 15:46	APB	9045D
Arsenic	4.77	mg/Kg	1.00	2	09/19/23 16:08	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/19/23 16:08	APB	6010D
Copper	18.4	mg/Kg	1.00	2	09/19/23 16:08	APB	6010D
Nickel	26.1	mg/Kg	0.500	2	09/19/23 16:08	APB	6010D
Vanadium	29.8	mg/Kg	1.00	2	09/19/23 16:08	APB	6010D
Zinc	50.9	mg/Kg	2.50	2	09/19/23 16:08	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

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Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61707**
Sample ID : **CS - 36L**

Matrix: **Solids**
Sampled: **9/7/2023 8:10**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	75.2	mg/Kg	10.0	1	09/19/23 17:42	MJM	9056
pH	7.4	s.u.		1	09/18/23 15:46	APB	9045D
Arsenic	3.56	mg/Kg	1.00	2	09/19/23 16:12	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/19/23 16:12	APB	6010D
Copper	17.5	mg/Kg	1.00	2	09/19/23 16:12	APB	6010D
Nickel	22.7	mg/Kg	0.500	2	09/19/23 16:12	APB	6010D
Vanadium	30.3	mg/Kg	1.00	2	09/19/23 16:12	APB	6010D
Zinc	40.4	mg/Kg	2.50	2	09/19/23 16:12	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

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Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61708**
Sample ID : **CS - 37L**

Matrix: **Solids**
Sampled: **9/7/2023 8:15**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	49.2	mg/Kg	10.0	1	09/19/23 17:54	MJM	9056
pH	7.5	s.u.		1	09/18/23 15:46	APB	9045D
Arsenic	3.99	mg/Kg	1.00	2	09/19/23 16:17	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/19/23 16:17	APB	6010D
Copper	13.3	mg/Kg	1.00	2	09/19/23 16:17	APB	6010D
Nickel	21.4	mg/Kg	0.500	2	09/19/23 16:17	APB	6010D
Vanadium	28.8	mg/Kg	1.00	2	09/19/23 16:17	APB	6010D
Zinc	38.3	mg/Kg	2.50	2	09/19/23 16:17	APB	6010D

**Qualifiers/
Definitions**

DF Dilution Factor MQL Method Quantitation Limit

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Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61709**
Sample ID : **CS - 38L**

Matrix: **Solids**
Sampled: **9/7/2023 9:15**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	49.3	mg/Kg	10.0	1	09/19/23 18:07	MJM	9056
pH	7.9	s.u.		1	09/18/23 15:46	APB	9045D
Arsenic	3.53	mg/Kg	1.00	2	09/19/23 16:21	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/19/23 16:21	APB	6010D
Copper	13.9	mg/Kg	1.00	2	09/19/23 16:21	APB	6010D
Nickel	21.4	mg/Kg	0.500	2	09/19/23 16:21	APB	6010D
Vanadium	27.3	mg/Kg	1.00	2	09/19/23 16:21	APB	6010D
Zinc	38.2	mg/Kg	2.50	2	09/19/23 16:21	APB	6010D

**Qualifiers/
Definitions**

DF Dilution Factor MQL Method Quantitation Limit

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Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61710**
Sample ID : **CS - 39L**

Matrix: **Solids**
Sampled: **9/7/2023 9:20**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	121	mg/Kg	10.0	1	09/19/23 18:19	MJM	9056
pH	8.2	s.u.		1	09/18/23 15:46	APB	9045D
Arsenic	4.35	mg/Kg	1.00	2	09/19/23 16:25	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/19/23 16:25	APB	6010D
Copper	14.6	mg/Kg	1.00	2	09/19/23 16:25	APB	6010D
Nickel	22.5	mg/Kg	0.500	2	09/19/23 16:25	APB	6010D
Vanadium	30.5	mg/Kg	1.00	2	09/19/23 16:25	APB	6010D
Zinc	38.2	mg/Kg	2.50	2	09/19/23 16:25	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

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Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61711**
Sample ID : **CS - 40L**

Matrix: **Solids**
Sampled: **9/7/2023 8:20**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	50.6	mg/Kg	10.0	1	09/19/23 19:09	MJM	9056
pH	8.3	s.u.		1	09/18/23 15:46	APB	9045D
Arsenic	2.96	mg/Kg	1.00	2	09/19/23 16:29	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/19/23 16:29	APB	6010D
Copper	12.7	mg/Kg	1.00	2	09/19/23 16:29	APB	6010D
Nickel	19.7	mg/Kg	0.500	2	09/19/23 16:29	APB	6010D
Vanadium	25.1	mg/Kg	1.00	2	09/19/23 16:29	APB	6010D
Zinc	33.2	mg/Kg	2.50	2	09/19/23 16:29	APB	6010D

**Qualifiers/
Definitions**

DF Dilution Factor MQL Method Quantitation Limit

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Report Date : 09/21/2023
Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61712**
Sample ID : **BD-01**

Matrix: **Solids**
Sampled: **9/6/2023 15:50**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	4970	mg/Kg	100	10	09/19/23 15:14	MJM	9056
pH	8.2	s.u.		1	09/18/23 15:46	APB	9045D
Arsenic	2.52	mg/Kg	1.00	2	09/19/23 16:34	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/19/23 16:34	APB	6010D
Copper	17.2	mg/Kg	1.00	2	09/19/23 16:34	APB	6010D
Nickel	23.4	mg/Kg	0.500	2	09/19/23 16:34	APB	6010D
Vanadium	28.0	mg/Kg	1.00	2	09/19/23 16:34	APB	6010D
Zinc	42.0	mg/Kg	2.50	2	09/19/23 16:34	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

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Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61713**
Sample ID : **BD-02**

Matrix: **Solids**
Sampled: **9/6/2023 11:20**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	1900	mg/Kg	100	10	09/19/23 15:26	MJM	9056
pH	7.9	s.u.		1	09/18/23 15:46	APB	9045D
Arsenic	3.76	mg/Kg	1.00	2	09/19/23 21:12	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/19/23 21:12	APB	6010D
Copper	17.9	mg/Kg	1.00	2	09/19/23 21:12	APB	6010D
Nickel	24.6	mg/Kg	0.500	2	09/19/23 21:12	APB	6010D
Vanadium	37.7	mg/Kg	1.00	2	09/19/23 21:12	APB	6010D
Zinc	48.2	mg/Kg	2.50	2	09/19/23 21:12	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

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Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61714**
Sample ID : **BD-03**

Matrix: **Solids**
Sampled: **9/6/2023 14:40**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	359	mg/Kg	10.0	1	09/19/23 19:21	MJM	9056
pH	7.8	s.u.		1	09/18/23 15:46	APB	9045D
Arsenic	2.51	mg/Kg	1.00	2	09/19/23 21:16	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/20/23 11:50	APB	6010D
Copper	14.2	mg/Kg	1.00	2	09/19/23 21:16	APB	6010D
Nickel	20.5	mg/Kg	0.500	2	09/19/23 21:16	APB	6010D
Vanadium	26.3	mg/Kg	1.00	2	09/19/23 21:16	APB	6010D
Zinc	41.4	mg/Kg	2.50	2	09/19/23 21:16	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit



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 Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61723**
 Sample ID : **CB-1**

Matrix: **Solids**
 Sampled: **9/6/2023 9:15**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
pH	6.9	s.u.		1	09/18/23 15:46	APB	9045D

**Qualifiers/
 Definitions**

DF Dilution Factor MQL Method Quantitation Limit



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 Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61724**
 Sample ID : **CB-2**

Matrix: **Solids**
 Sampled: **9/6/2023 9:15**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
pH	6.5	s.u.		1	09/18/23 15:46	APB	9045D

**Qualifiers/
 Definitions**

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Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61725**
 Sample ID : **CB-3**

Matrix: **Solids**
 Sampled: **9/6/2023 9:20**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
pH	6.8	s.u.		1	09/18/23 15:46	APB	9045D

**Qualifiers/
 Definitions**

DF Dilution Factor MQL Method Quantitation Limit



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Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61726**
 Sample ID : **CB-4**

Matrix: **Solids**
 Sampled: **9/6/2023 9:20**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
pH	6.7	s.u.		1	09/18/23 15:46	APB	9045D

**Qualifiers/
 Definitions**

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Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61727**
 Sample ID : **CB-5**

Matrix: **Solids**
 Sampled: **9/6/2023 9:25**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
pH	6.3	s.u.		1	09/19/23 10:22	APB	9045D

**Qualifiers/
 Definitions**

DF Dilution Factor MQL Method Quantitation Limit



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REPORT OF ANALYSIS

Lab No : **61728**
 Sample ID : **CB-6**

Matrix: **Solids**
 Sampled: **9/6/2023 9:25**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
pH	5.5	s.u.		1	09/19/23 10:22	APB	9045D

**Qualifiers/
 Definitions**

DF Dilution Factor MQL Method Quantitation Limit



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Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61729**
 Sample ID : **CB-7**

Matrix: **Solids**
 Sampled: **9/6/2023 9:25**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
pH	6.2	s.u.		1	09/19/23 10:22	APB	9045D

**Qualifiers/
 Definitions**

DF Dilution Factor MQL Method Quantitation Limit

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Received : 09/08/2023

Report Number : **23-251-0024**

REPORT OF ANALYSIS

Lab No : **61730**
Sample ID : **CB-8**

Matrix: **Solids**
Sampled: **9/6/2023 9:25**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
pH	6.6	s.u.		1	09/19/23 10:22	APB	9045D

**Qualifiers/
Definitions**

DF Dilution Factor MQL Method Quantitation Limit

Quality Control Data

Client ID: Providence Engineering
Project Description: 002-302
Report No: 23-251-0024

QC Prep: A85764 **QC Analytical Batch(es):** A85900
QC Prep Batch Method: 3050B **Analysis Method:** 6010D
Analysis Description: Metals Analysis

Lab Reagent Blank LRB-A85764 Matrix: SOL
 Associated Lab Samples: 61653, 61654, 61655, 61656, 61657, 61658, 61659, 61660, 61661, 61662, 61663, 61664, 61665, 61666

Parameter	Units	Blank Result	MQL	Analyzed
Arsenic	mg/Kg	< 0.500	0.500	09/14/23 19:56
Cadmium	mg/Kg	< 0.100	0.100	09/14/23 19:56
Copper	mg/Kg	< 0.500	0.500	09/14/23 19:56
Nickel	mg/Kg	< 0.250	0.250	09/14/23 19:56
Vanadium	mg/Kg	< 0.500	0.500	09/14/23 19:56
Zinc	mg/Kg	< 1.25	1.25	09/14/23 19:56

Laboratory Control Sample & LCSD LCS-A85764 LCSD-A85764

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Arsenic	mg/Kg	5.00	5.27	5.24	105	105	80-120	0.5	20.0
Cadmium	mg/Kg	5.00	5.35	5.39	107	108	80-120	0.7	20.0
Copper	mg/Kg	50.0	52.4	52.1	105	104	80-120	0.5	20.0
Nickel	mg/Kg	50.0	52.8	52.2	106	104	80-120	1.1	20.0
Vanadium	mg/Kg	50.0	51.0	51.3	102	103	80-120	0.5	20.0
Zinc	mg/Kg	50.0	50.3	50.6	101	101	80-120	0.5	20.0

Matrix Spike & Matrix Spike Duplicate A 61660-MS-A85764 A 61660-MSD-A85764

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Arsenic	mg/Kg	4.05	4.84	4.88	9.58	7.48	114	70.0*	75-125	24.6*	20.0
Cadmium	mg/Kg	< 0.200	4.84	4.88	4.59	4.53	95.0	93.0	75-125	1.3	20.0
Copper	mg/Kg	12.9	48.4	48.8	66.8	63.2	111	103	75-125	5.5	20.0
Nickel	mg/Kg	19.7	48.4	48.8	73.7	73.6	112	110	75-125	0.1	20.0
Vanadium	mg/Kg	27.7	48.4	48.8	80.3	79.8	109	107	75-125	0.6	20.0

Quality Control Data

Client ID: Providence Engineering
Project Description: 002-302
Report No: 23-251-0024

QC Prep: A85764 **QC Analytical Batch(es):** A85900
QC Prep Batch Method: 3050B **Analysis Method:** 6010D
Analysis Description: Metals Analysis

Matrix Spike & Matrix Spike Duplicate A 61660-MS-A85764 A 61660-MSD-A85764

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Zinc	mg/Kg	38.4	48.4	48.8	93.7	88.0	114	102	75-125	6.2	20.0

Quality Control Data

Client ID: Providence Engineering
Project Description: 002-302
Report No: 23-251-0024

QC Prep: A85848 **QC Analytical Batch(es):** A85917
QC Prep Batch Method: 3050B **Analysis Method:** 6010D
Analysis Description: Metals Analysis

Lab Reagent Blank LRB-A85848 Matrix: SOL
 Associated Lab Samples: 61691, 61692, 61693, 61694, 61695, 61696, 61697, 61698, 61699, 61700, 61701, 61702, 61705, 61706, 61707, 61708, 61709, 61710, 61711, 61712

Parameter	Units	Blank Result	MQL	Analyzed
Arsenic	mg/Kg	< 0.500	0.500	09/19/23 14:08
Cadmium	mg/Kg	< 0.100	0.100	09/19/23 14:08
Copper	mg/Kg	< 0.500	0.500	09/19/23 14:08
Nickel	mg/Kg	< 0.250	0.250	09/19/23 14:08
Vanadium	mg/Kg	< 0.500	0.500	09/19/23 14:08
Zinc	mg/Kg	< 1.25	1.25	09/19/23 14:08

Laboratory Control Sample & LCSD LCS-A85848 LCSD-A85848

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Arsenic	mg/Kg	5.00	5.16	5.05	103	101	80-120	2.1	20.0
Cadmium	mg/Kg	5.00	5.28	5.23	106	105	80-120	0.9	20.0
Copper	mg/Kg	50.0	51.2	51.1	102	102	80-120	0.1	20.0
Nickel	mg/Kg	50.0	53.1	52.8	106	106	80-120	0.5	20.0
Vanadium	mg/Kg	50.0	50.1	49.9	100	100	80-120	0.4	20.0
Zinc	mg/Kg	50.0	48.7	48.3	97.0	97.0	80-120	0.8	20.0

Matrix Spike & Matrix Spike Duplicate A 61699-MS-A85848 A 61699-MSD-A85848

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Arsenic	mg/Kg	5.02	4.99	5.00	7.93	8.26	58.0*	65.0*	75-125	4.0	20.0
Cadmium	mg/Kg	< 0.200	4.99	5.00	4.39	4.34	88.0	87.0	75-125	1.1	20.0
Copper	mg/Kg	22.1	49.9	50.0	64.9	72.0	86.0	100	75-125	10.3	20.0
Nickel	mg/Kg	26.5	49.9	50.0	74.1	78.6	95.0	104	75-125	5.8	20.0
Vanadium	mg/Kg	49.0	49.9	50.0	81.4	86.4	65.0*	75.0	75-125	5.9	20.0

Quality Control Data

Client ID: Providence Engineering
Project Description: 002-302
Report No: 23-251-0024

QC Prep: A85848 **QC Analytical Batch(es):** A85917
QC Prep Batch Method: 3050B **Analysis Method:** 6010D
Analysis Description: Metals Analysis

Matrix Spike & Matrix Spike Duplicate A 61699-MS-A85848 A 61699-MSD-A85848

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Zinc	mg/Kg	46.8	49.9	50.0	88.0	93.1	83.0	93.0	75-125	5.6	20.0

Quality Control Data

Client ID: Providence Engineering
Project Description: 002-302
Report No: 23-251-0024

QC Prep: A85850 **QC Analytical Batch(es):** A85917
QC Prep Batch Method: 3050B **Analysis Method:** 6010D
Analysis Description: Metals Analysis

Lab Reagent Blank LRB-A85850 Matrix: SOL
Associated Lab Samples: 61667, 61668, 61669, 61670, 61671, 61672, 61673, 61674, 61677, 61678, 61679, 61680, 61683, 61684, 61685, 61686, 61687, 61688, 61689, 61690

Parameter	Units	Blank Result	MQL	Analyzed
Arsenic	mg/Kg	< 0.500	0.500	09/19/23 14:23
Cadmium	mg/Kg	< 0.100	0.100	09/19/23 14:23
Copper	mg/Kg	< 0.500	0.500	09/19/23 14:23
Nickel	mg/Kg	< 0.250	0.250	09/19/23 14:23
Vanadium	mg/Kg	< 0.500	0.500	09/19/23 14:23
Zinc	mg/Kg	< 1.25	1.25	09/19/23 14:23

Laboratory Control Sample & LCSD LCS-A85850 LCSD-A85850

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Arsenic	mg/Kg	5.00	5.15	5.12	103	102	80-120	0.5	20.0
Cadmium	mg/Kg	5.00	5.36	5.32	107	106	80-120	0.7	20.0
Copper	mg/Kg	50.0	51.2	51.5	102	103	80-120	0.5	20.0
Nickel	mg/Kg	50.0	53.2	53.1	106	106	80-120	0.1	20.0
Vanadium	mg/Kg	50.0	50.5	50.3	101	101	80-120	0.3	20.0
Zinc	mg/Kg	50.0	49.5	49.2	99.0	98.0	80-120	0.6	20.0

Matrix Spike & Matrix Spike Duplicate A 61687-MS-A85850 A 61687-MSD-A85850

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Arsenic	mg/Kg	5.34	4.59	4.99	8.43	8.65	67.0*	66.0*	75-125	2.5	20.0
Cadmium	mg/Kg	0.210	4.59	4.99	4.16	4.55	86.0	87.0	75-125	8.9	20.0
Copper	mg/Kg	35.0	45.9	49.9	63.3	66.3	62.0*	63.0*	75-125	4.6	20.0
Nickel	mg/Kg	22.5	45.9	49.9	68.0	74.8	99.0	105	75-125	9.5	20.0
Vanadium	mg/Kg	67.3	45.9	49.9	81.5	80.5	31.0*	26.0*	75-125	1.2	20.0

Quality Control Data

Client ID: Providence Engineering

Project Description: 002-302

Report No: 23-251-0024

QC Prep: A85850

QC Prep Batch Method: 3050B

QC Analytical Batch(es): A85917

Analysis Method: 6010D

Analysis Description: Metals Analysis

Matrix Spike & Matrix Spike Duplicate A 61687-MS-A85850 A 61687-MSD-A85850

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Zinc	mg/Kg	48.6	45.9	49.9	83.6	93.2	76.0	89.0	75-125	10.8	20.0

Quality Control Data

Client ID: Providence Engineering
Project Description: 002-302
Report No: 23-251-0024

QC Prep: A85903 **QC Analytical Batch(es):** A85970,A86079
QC Prep Batch Method: 3050B **Analysis Method:** 6010D
Analysis Description: Metals Analysis

Lab Reagent Blank LRB-A85903 Matrix: SOL
Associated Lab Samples: 61713, 61714

Parameter	Units	Blank Result	MQL	Analyzed
Arsenic	mg/Kg	< 0.500	0.500	09/19/23 20:12
Cadmium	mg/Kg	< 0.100	0.100	09/20/23 11:34
Copper	mg/Kg	< 0.500	0.500	09/19/23 20:12
Nickel	mg/Kg	< 0.250	0.250	09/20/23 11:34
Vanadium	mg/Kg	< 0.500	0.500	09/19/23 20:12
Zinc	mg/Kg	< 1.25	1.25	09/19/23 20:12

Laboratory Control Sample & LCSD LCS-A85903 LCSD-A85903

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Arsenic	mg/Kg	5.00	5.05	5.01	101	100	80-120	0.7	20.0
Cadmium	mg/Kg	5.00	5.32	5.22	106	104	80-120	1.8	20.0
Copper	mg/Kg	50.0	51.4	50.5	103	101	80-120	1.7	20.0
Nickel	mg/Kg	50.0	51.5	51.3	103	103	80-120	0.3	20.0
Vanadium	mg/Kg	50.0	50.2	49.3	100	99.0	80-120	1.8	20.0
Zinc	mg/Kg	50.0	48.2	47.3	96.0	95.0	80-120	1.8	20.0

Quality Control Data

Client ID: Providence Engineering
Project Description: 002-302
Report No: 23-251-0024

QC Analytical Batch: A85754
Analysis Method: 9045D
Analysis Description: pH in Solids

Duplicate A 61660-DUP

Parameter	Units	Result	DUP Result	RPD	Max RPD	Analyzed
pH	s.u.	6.2	6.4	3.1	10.0	09/13/23 16:20

Quality Control Data

Client ID: Providence Engineering

Project Description: 002-302

Report No: 23-251-0024

QC Analytical Batch: A85755

Analysis Method: 9045D

Analysis Description: pH in Solids

Duplicate A 61687-DUP

Parameter	Units	Result	DUP Result	RPD	Max RPD	Analyzed
pH	s.u.	8.0	8.0	0.0	10.0	09/18/23 14:30

Quality Control Data

Client ID: Providence Engineering
Project Description: 002-302
Report No: 23-251-0024

QC Analytical Batch: A85756
Analysis Method: 9045D
Analysis Description: pH in Solids

Duplicate A 61699-DUP

Parameter	Units	Result	DUP Result	RPD	Max RPD	Analyzed
pH	s.u.	8.7	8.7	0.0	10.0	09/18/23 15:46

Quality Control Data

Client ID: Providence Engineering

Project Description: 002-302

Report No: 23-251-0024

QC Analytical Batch: A85757

Analysis Method: 9045D

Analysis Description: pH in Solids

Duplicate A 61729-DUP

Parameter	Units	Result	DUP Result	RPD	Max RPD	Analyzed
pH	s.u.	6.2	6.2	0.0	10.0	09/19/23 10:22

Quality Control Data

Client ID: Providence Engineering
Project Description: 002-302
Report No: 23-251-0024

QC Prep: A85750 **QC Analytical Batch(es):** A85896
QC Prep Batch Method: SW-9056 (PREP) **Analysis Method:** 9056
Analysis Description: Anions by Ion Chromatography

Lab Reagent Blank LRB-A85750 Matrix: SOL
Associated Lab Samples: 61653, 61654, 61655, 61656, 61657, 61658, 61659, 61660, 61661, 61662, 61663, 61664, 61665, 61666, 61667, 61668, 61669, 61670, 61671, 61672

Parameter	Units	Blank Result	MQL	Analyzed
Sulfate	mg/Kg	< 10.0	10.0	09/14/23 15:35

Laboratory Control Sample LCS-A85750

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Sulfate	mg/Kg	625	586	93.7	80-120

Matrix Spike & Matrix Spike Duplicate A 61660-MS-A85750 A 61660-MSD-A85750

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Sulfate	mg/Kg	2210	597	588	2850	2590	107	64.6*	80-120	9.5	15.0

Quality Control Data

Client ID: Providence Engineering

Project Description: 002-302

Report No: 23-251-0024

QC Prep:	A85751	QC Analytical Batch(es):	A85897
QC Prep Batch Method:	SW-9056 (PREP)	Analysis Method:	9056
		Analysis Description:	Anions by Ion Chromatography

Lab Reagent Blank LRB-A85751 Matrix: SOL
 Associated Lab Samples: 61673, 61674, 61677, 61678, 61679, 61680, 61683, 61684, 61685, 61686, 61687, 61688, 61689, 61690, 61691, 61692, 61693, 61694, 61695, 61696

Parameter	Units	Blank Result	MQL	Analyzed
Sulfate	mg/Kg	< 10.0	10.0	09/14/23 21:33

Laboratory Control Sample LCS-A85751

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Sulfate	mg/Kg	625	584	93.4	80-120

Quality Control Data

Client ID: Providence Engineering
Project Description: 002-302
Report No: 23-251-0024

QC Prep: A85752 **QC Analytical Batch(es):** A85898
QC Prep Batch Method: SW-9056 (PREP) **Analysis Method:** 9056
Analysis Description: Anions by Ion Chromatography

Lab Reagent Blank LRB-A85752 Matrix: SOL
Associated Lab Samples: 61697, 61698, 61699, 61700, 61701, 61702, 61705, 61706, 61707, 61708, 61709, 61710, 61711, 61712, 61713, 61714

Parameter	Units	Blank Result	MQL	Analyzed
Sulfate	mg/Kg	< 10.0	10.0	09/19/23 11:07

Laboratory Control Sample LCS-A85752

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Sulfate	mg/Kg	625	629	101	80-120

Matrix Spike & Matrix Spike Duplicate A 61699-MS-A85752 A 61699-MSD-A85752

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Sulfate	mg/Kg	16400	600	580	16900	16500	83.3	17.2*	80-120	2.3	15.0

Shipment Receipt Form

Customer Number: **00760**
 Customer Name: **Providence Engineering**
 Report Number: **23-251-0024**

Shipping Method

Fed Ex US Postal Lab Other :
 UPS Client Courier Thermometer ID:

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="1"/>		
Custody seals intact on shipping container/cooler?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)		<input type="checkbox"/> Low concentration EnCore samplers (48 hr)	
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)		<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)	
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:

23-251-0024
00760
09-08-2023
14:34:09

Providence Engineering
002-302

23-251-0025
00760
09-08-2023
15:03:28

Providence Engineering
002-302

Billing Information

RUSH - Additional charges apply
 Special Detection Limit(s)
 Date Results Needed

Metho:
 Fec
 Cot
 Ott

RECAP

Project Manager Email
 emilywelch@providenceeng.com

Client Name/Address
 Providence Engineering

Client Project Manager/Contact
 Emily Welch

Project Description
 Cleco Brame-Fly Ash
 Pond

Project/Site Location (City/State)
 Lena,
 Rapides Parish, LA

Project Number
 002-302

Project Manager Phone #
 225-766-7400

Waypoint ANALYTICAL
 5041 Taravilla Road
 Marrero, LA 70072
 (504)-371-8557

Unless noted, all containers per Table II of 40 CFR Part 136.

PH

***Sulfate**

***Metals**

Required Analysis / Preservative

Matrix (Refer to Key)

Number of Containers

Sample Identification

Time

Date

(g)rab or (C)omposite

Comments/Notes

Cool <= 6C
 H2SO4 pH<2
 None Required
 NaOH pH>10
 HNO3 pH<2
 HCL pH<2
 H3PO4 pH<2
 Cool <= 6C NAA25Z03

Date	Time	Sample Identification	(g)rab or (C)omposite	PH	Sulfate	Metals	Required Analysis / Preservative	Comments/Notes
9/17	0850	CS-1A	G	X	X	X		61653
9/17	0855	CS-1B	G	X	X	X		61654
9/16	1600	CS-2A	G	X	X	X		61655
9/16	1600	CS-2B	G	X	X	X		61656
9/16	1445	CS-3A	G	X	X	X		61657
9/16	1500	CS-3B	G	X	X	X		61658
9/16	1440	CS-4A	G	X	X	X		61659
9/16	1450	CS-4B	G	X	X	X		61660
9/16	1305	CS-5A	G	X	X	X		61661
9/16	1305	CS-5B	G	X	X	X		61662

Client Remarks/Comments
 * As, Cd, Cu, Ni, V, Zn

Sampled by (Name - Print)
 Emily Welch + Andrew Creel

Relinquished by: (SIGNATURE)
 Emily Welch

Date Time
 9/18/10

Received by: (SIGNATURE)
 Andrew Creel

Date Time
 9/18/23

Relinquished by: (SIGNATURE)
 Andrew Creel

Date Time
 9/18/23

Relinquished by: (SIGNATURE)
 Andrew Creel

Date Time
 9/18/23

Relinquished by: (SIGNATURE)
 Andrew Creel


Date Time
 9/18/23


For Laboratory Use Only


Lab Comments
 RUSH on separate report - cdv

Custody Seals
 Y/N

Blank/Cooler Temp
 2.1°C

Client Name/Address		Client Project Manager/Contact		Billing Information		For Laboratory Use Only					
Providence Engineering		Emily Welch		<input type="checkbox"/> RUSH - Additional charges apply <input checked="" type="checkbox"/> Special Detection Limit(s) Date Results Needed RECAP		<input type="checkbox"/> Fed Ex <input type="checkbox"/> Courier <input type="checkbox"/> Other		<input type="checkbox"/> UPS <input type="checkbox"/> Client Drop Off		Matrix Key WW - Wastewater GW - Groundwater DW - Drinking Water S - Soil / Solid O - Oil P - Product M - Misc	
Project Description		Project/Site Location (City/State)		Project Manager Email		Purchase Order Number		Site/Facility ID #			
Cleco Brame-Fly Ash Pond		Lena, Rapides Parish, LA		emilywelch@providenceeng.com							
Project Number		Project Manager Phone #		Matrix (Refer to Key)		Number of Containers		Required Analysis / Preservative		Comments/Notes	
002-302		225-766-7400									
 5041 Taravelia Road Marrero, LA 70072 (504)-371-8557		Unless noted, all containers per Table II of 40 CFR Part 136.		PH Sulfate *Metals						A Cool < 10C NA25203 (Micro Only) B Cool <= 6C C H2SO4 pH<2 D None Required E NaOH pH>10 F HNO3 pH<2 G HCL pH<2 H H3PO4 pH<2 I Cool <= 6C NA25203	
Date	Time	Sample Identification		(Grab or Composite)							
9/16	1240	CS-6A	1	G	X	X	X				61663 61663
9/16	1240	CS-6B	1	G	X	X	X				61664
9/16	1235	CS-7A	1	G	X	X	X				61665
9/16	1230	CS-7B	1	G	X	X	X				61666
9/16	1130	CS-8A	1	G	X	X	X				61667
9/16	1135	CS-8B	1	G	X	X	X				61668
9/17	0900	CS-9A	1	G	X	X	X				61669
9/17	0905	CS-9B	1	G	X	X	X				61670
9/16	1555	CS-10A	1	G	X	X	X				61671
9/16	1555	CS-10B	1	G	X	X	X				61672
Ice		Custody Seals		Sampled by (Name - Print)		Client Remarks/Comments		Date Time		Date Time	
STN		Y10		Emily Welch + Andrew Creed		* As, Cd, Cu, Ni, V, Zn		9/16 1010		9/18/23	
Blank/Cooler Temp		2.1		Relinquished by: (SIGNATURE)		Date Time		Date Time		Date Time	
				Emily Welch		1330		9/18/23		9/18/23 1330	
				Relinquished by: (SIGNATURE)		Date Time		Date Time		Date Time	
				Relinquished by: (SIGNATURE)		Date Time		Date Time		Date Time	
				Relinquished by: (SIGNATURE)		Date Time		Date Time		Date Time	

Client Name/Address		Client Project Manager/Contact		Billing Information		For Laboratory Use Only	
Providence Engineering		Emily Welch		<input type="checkbox"/> RUSH - Additional charges apply <input checked="" type="checkbox"/> Special Detection Limit(s) Date Results Needed RECAP		Matrix Key WW - Wastewater GW - Groundwater DW - Drinking Water S - Soil / Solid O - Oil P - Product M - Misc	
Project Description		Project/Site Location (City/State)		Method of Shipment		Site/Facility ID #	
Cleco Brame-Fly Ash Pond		Lena, Rapides Parish, LA		<input type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other			
Project Number		Project Manager Phone #		Project Manager Email		Purchase Order Number	
002-302		225-766-7400		emilywelch@providenceeng.com			
 5041 Taravella Road Marrero, LA 70072 (504)-371-8557		Number of Containers Matrix (Refer to Key)		PH Sulfate *Metals		Required Analysis / Preservative	
Sample Identification		Matrix (Refer to Key)		Required Analysis / Preservative		Comments/Notes	
Date	Time						
9/16	1505	CS-11A	1	X	X		61673
9/16	1505	CS-11B	1	X	X		61674
9/16	1450	CS-12A	1	X	X		RUSH - ASAP
9/16	1455	CS-12B	1	X	X		RUSH - ASAP
9/16	1300	CS-13A	1	X	X		61677
9/16	1300	CS-13B	1	X	X		61678
9/16	1245	CS-14A	1	X	X		61679
9/16	1245	CS-14B	1	X	X		61680
9/16	1225	CS-15A	1	X	X		RUSH - ASAP 61681
9/16	1225	CS-15B	1	X	X		RUSH - ASAP 61682
Ice		Custody Seals		Lab Comments		Client Remarks/Comments	
A/N		Y/N		Sampled by: (Name - Print) Relinquished by: (SIGNATURE) Relinquished by: (SIGNATURE) Relinquished by: (SIGNATURE)		* As, Cd, Cu, Ni, V, Zn Date Time Date Time Date Time	
Blank/Cooler Temp		21°C		Date Time Date Time Date Time		Received by: (SIGNATURE) Received by: (SIGNATURE) Received by: (SIGNATURE)	
				Date Time Date Time Date Time		Date Time Date Time Date Time	

Client Name/Address		Client Project Manager/Contact		Billing Information		For Laboratory Use Only	
Providence Engineering Cleco Brame-Fly Ash Pond		Emily Welch Lena, Rapides Parish, LA		<input type="checkbox"/> RUSH - Additional charges apply <input checked="" type="checkbox"/> Special Detection Limit(s) Date Results Needed RECAP		Method of Shipment <input type="checkbox"/> Fed Ex <input type="checkbox"/> Courier <input type="checkbox"/> UPS <input type="checkbox"/> Client Drop Off Other	
Project Description Cleco Brame-Fly Ash Pond		Project/Site Location (City/State) Lena, Rapides Parish, LA		Project Manager Email emilywelch@providenceeng.com		Matrix Key WW - Wastewater DW - Drinking Water S - Soil O - Oil P - Product M - Misc	
Project Number 002-302		Project Manager Phone # 225-766-7400		Project Manager Email emilywelch@providenceeng.com		Site/Facility ID #	
 5041 Taravella Road Marrero, LA 70072 (504)-371-8557		Number of Containers Matrix (Refer to Key) (S)rab or (C)omposite		PH Sulfate *Metals		Comments/Notes Cool < 10C Na2S2O3 (Micro Only) A Cool <= 6C B H2SO4 pH<2 C None Required D NaOH pH>10 E HNO3 pH<2 F HCL pH<2 G H3PO4 pH<2 H Cool <= 6C Na2S2O3 I	
Date 9/16 1130 9/16 1140 9/17 0905 9/17 0910 9/16 1550 9/16 1545 9/16 1510 9/16 1510		Sample Identification CS-16A CS-16B CS-17A CS-17B CS-18A CS-18B CS-19A CS-19B CS-20A CS-20B		Required Analysis / Preservative X X X X X X X X X X X X		Date 9/16 1130 9/16 1140 9/17 0905 9/17 0910 9/16 1550 9/16 1545 9/16 1510 9/16 1510	
Date 9/16 1130 9/16 1140 9/17 0905 9/17 0910 9/16 1550 9/16 1545 9/16 1510 9/16 1510		Sample Identification CS-16A CS-16B CS-17A CS-17B CS-18A CS-18B CS-19A CS-19B CS-20A CS-20B		Required Analysis / Preservative X X X X X X X X X X X X		Date 9/16 1130 9/16 1140 9/17 0905 9/17 0910 9/16 1550 9/16 1545 9/16 1510 9/16 1510	
Ice A/N		Custody Seals Y/N		Lab Comments Emily Welch + Andrew Greel Relinquished by: (SIGNATURE) Relinquished by: (SIGNATURE) Relinquished by: (SIGNATURE) Relinquished by: (SIGNATURE)		Client Remarks/Comments *As, Cd, Cu, Ni, V, Zn Date Time 9/16 1010 1330	
Received by: (SIGNATURE) Date Time 9/18/23 1010		Received by: (SIGNATURE) Date Time 9/18/23 1330		Received by: (SIGNATURE) Date Time 9/18/23 1330		Received by: (SIGNATURE) Date Time 9/18/23 1330	

For Laboratory Use Only

Billing Information

Client Project Manager/Contact

Client Name/Address

Method of Shipment
 Fed Ex UPS USPS
 Courier Client Drop Off
 Other _____

Matrix Key
 WW - Wastewater GW - Groundwater
 DW - Drinking Water S - Soil / Solid O - Oil
 P - Product M - Misc

RUSH - Additional charges apply
 Special Detection Limit(s)
 Date Results Needed
 on certain ones RECAP

Project Manager Email
 emily.welch@providenceeng.com

Project Description
 Fly Ash Pond

Site/Facility ID #

Purchase Order Number

Project Manager Phone #
 225-746-7400

Project Manager/Contact
 Emily Welch
 Lena

Project Number
 002-302

Waypoint ANALYTICAL
 235 Highpoint Dr.
 Ridgeland, MS 39157
 (601) 957-2676

Unless noted, all containers per Table II of 40 CFR Part 136.

Matrix (Refer to Key)

Number of Containers

Sample Identification

Required Analysis / Preservative

Comments/Notes

Required Analysis / Preservative

Required Analysis / Preservative

Required Analysis / Preservative

Client Remarks/Comments
 *As, Cd, Cu, Ni, V, Zn

Received by (SIGNATURE)
 Date Time 9/18/10 1010

Received by (SIGNATURE)
 Date Time 9/18/03 1330

Received by (SIGNATURE)
 Date Time 9/18/03 1330

Received by (SIGNATURE)
 Date Time 9/18/03 1330

Blank/Cooler Temp
 2.1°C

For Laboratory Use Only

Billing Information

Client Project Manager/Contact

Client Name/Address

Method of Shipment
 Fed Ex
 Courier
 UPS
 Client Drop Off
 Other

Matrix Key
 WW - Wastewater GW - Groundwater
 DW - Drinking Water S - Soil /Solid O - Oil
 P - Product M - Misc

RUSH - Additional charges apply
 Special Detection Limit(s)
 Date Results Needed
Recap

Project Manager Email
 emilywelch@providence.org.com

Project Description
FLY Ash Pond

Site/Facility ID #

Purchase Order Number

Project Manager Phone #
 225-766-7400

Project/Site Location (City/State)
Lena

Project Number
 002-302

Required Analysis / Preservative

Number of Containers

Matrix (Refer to Key)

Sample Identification

Date Time

Comments/Notes

Required Analysis / Preservative

Matrix (Refer to Key)

Sample Identification

Date Time

9/17	0820	CS-40L	1	S	G	X	X	X	61713	61711
9/16	1550	MS-03 @CS-18A	1	S	G	X	X	X	61714	61687
9/16	1550	MSD-03 @CS-18A	1	S	G	X	X	X		
9/16	1120	BD-01	1	S	G	X	X	X		
9/16	1440	BD-02	1	S	G	X	X	X		
9/16	1535	BD-03	1	S	G	X	X	X		
9/16	1450	MS-02 @CS-4B	1	S	G	X	X	X		
9/16	1450	MSD-02 @CS-4B	1	S	G	X	X	X		
9/16	1115	MSP @CS-25A	1	S	G	X	X	X		
9/16	1115	MS @CS-25A	1	S	G	X	X	X		

9/16	1010									
9/16	1330									

Client Remarks/Comments
 * AS, Cd, Cu, Ni, V, Zn

Sampled by (Name - Print)
 Emily Welch + Andrew Greed

Relinquished by: (SIGNATURE)
 Emily Welch

Received by: (SIGNATURE)
 [Signature]

Date Time
 9/18/10

Received by: (SIGNATURE)
 [Signature]

Date Time
 9/18/10

Received by: (SIGNATURE)
 [Signature]

Client Name/Address			Client Project Manager/Contact		Billing Information		For Laboratory Use Only																																																																																																			
Providence Engineering			Emily Welch		<input checked="" type="checkbox"/> RUSH - Additional charges apply <input checked="" type="checkbox"/> Special Detection Limit(s) Date Results Needed	Method of Shipment <input type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other _____		Matrix Key WW - Wastewater GW - Groundwater DW - Drinking Water S - Soil / Solid O - Oil P - Product M - Misc																																																																																																		
Project Description Cleco Brame-Fly Ash Pond			Project/Site Location (City/State) Lena, Rapides Parish, LA		RECAP <i>rush on certain mats</i>		Site/Facility ID #																																																																																																			
Project Number 002-302			Project Manager Phone # 225-766-7400		Project Manager Email emilywelch@providenceeng.com		Purchase Order Number																																																																																																			
 5041 Taravella Road Marrero, LA 70072 (504)-371-8557			Sample Identification		Required Analysis / Preservative		Comments/Notes																																																																																																			
			Date		Time		Matrix (Refer to Key)		Number of Containers																																																																																																	
Unless noted, all containers per Table II of 40 CFR Part 136.			PH		Sulfate		*Metals																																																																																																			
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Relinquished by: (SIGNATURE) <i>Emily Welch</i>			Date 9/16/10		Time 10:10		Received by: (SIGNATURE) <i>[Signature]</i>		Date 9/18/03																																																																																																	
Relinquished by: (SIGNATURE) <i>[Signature]</i>			Date 9/18/03		Time 1330		Received by: (SIGNATURE) <i>[Signature]</i>		Date 9/18/03																																																																																																	
Relinquished by: (SIGNATURE) <i>[Signature]</i>			Date 9/18/03		Time		Received by: (SIGNATURE) <i>[Signature]</i>		Date 9/18/03																																																																																																	



10/13/2023

Providence Engineering
Emily Welch
1201 Main St.
Baton Rouge, LA, 70802

Ref: Report Number: 23-284-0001
Project Description: 002-302
Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Dear Emily Welch:

Waypoint Analytical Louisiana, Inc. received sample(s) on 10/11/2023 for the analyses presented in the following report. The above referenced project has been analyzed per your instructions. Unless otherwise noted, the analyses were performed in our laboratory in accordance with Standard Methods, The Solid Waste Manual SW-846, EPA Methods for Chemical Analysis of Water and Wastes and /or 40 CFR part 136.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance. Analyses reported which indicate "Field" for these parameters were analyzed by the client in the field. Results for solid samples are reported on an as received or "wet weight" basis unless otherwise specified.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2021) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

All quality control measures undertaken in accordance with Waypoint Analytical Louisiana, Inc. CompQAP990807A and revisions under the terms of the Louisiana Environmental Laboratory Accreditation Program (Certificate #02041) are within acceptance ranges established in that document with the exception of the items indicated and/or discussed in a Case Narrative.

The results are shown on the attached analysis sheet(s). Be aware that the time analyzed for certain samples (e.g. - BOD, CBOD, etc.) refer to the time the sample batch was begun and not necessarily to the time an individual sample was begun. Thank you for allowing Waypoint Analytical Louisiana, Inc. to serve you. Should I be of further assistance, if you have any questions or need additional information please contact me or client services.

Sincerely,

Amy Jackson
Project Manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis. This report may be reproduced in full only with the written permission of the laboratory and/or the entity to which it is addressed. Results contained herein relate only to the sample(s) submitted to the laboratory.





5041 Taravella Road, Marrero, LA 70072
Main 504-371-8557 ° Fax 504-371-8560
www.waypointanalytical.com

Certification Summary

Laboratory ID: WP MLA: Waypoint Analytical Louisiana, Inc., Marrero, LA

<u>State</u>	<u>Program</u>	<u>Lab ID</u>	<u>Expiration Date</u>
Georgia	State Program	02041	06/30/2024
Louisiana	State Program - NELAP	02041	06/30/2024

Sample Summary Table

Report Number: 23-284-0001
Client Project Description: 002-302
Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
64249	CS-5AR	Solids	10/09/2023 11:45	10/11/2023 08:00
64250	CS-14AR	Solids	10/09/2023 11:50	10/11/2023 08:00
64251	CS-18AR	Solids	10/09/2023 12:05	10/11/2023 08:00
64252	CS-20A	Solids	10/09/2023 10:00	10/11/2023 08:00
64253	CS-20B	Solids	10/09/2023 10:05	10/11/2023 08:00
64254	CS-28A	Solids	10/09/2023 11:20	10/11/2023 08:00
64255	CS-28B	Solids	10/09/2023 10:15	10/11/2023 08:00
64256	CS-29A	Solids	10/09/2023 11:00	10/11/2023 08:00
64257	CS-29B	Solids	10/09/2023 10:55	10/11/2023 08:00
64258	CS-30A	Solids	10/09/2023 11:05	10/11/2023 08:00
64259	CS-30B	Solids	10/09/2023 10:35	10/11/2023 08:00
64260	CS-31A	Solids	10/09/2023 11:15	10/11/2023 08:00
64261	CS-31B	Solids	10/09/2023 10:30	10/11/2023 08:00
64262	CS-32L	Solids	10/09/2023 10:25	10/11/2023 08:00
64263	CS-33L	Solids	10/09/2023 10:40	10/11/2023 08:00
64264	CS-41L	Solids	10/09/2023 11:30	10/11/2023 08:00
64265	CS-42L	Solids	10/09/2023 09:55	10/11/2023 08:00
64266	BD	Solids	10/09/2023 11:25	10/11/2023 08:00



Client: Providence Engineering
Project: 002-302
Lab Report Number: 23-284-0001
Date: 10/13/2023

CASE NARRATIVE

Metals Analysis Method 6010D

Sample 64263 (CS-33L)

Analyte: Arsenic

QC Batch No: A86743/A86692

The matrix spike and/or the matrix spike duplicate was outside quality control acceptance ranges. A post digestion spike was performed and passed quality control acceptance ranges. No matrix interference is suspected.

Anions by Ion Chromatography Method 9056

Sample 64263 (CS-33L)

Analyte: Sulfate

QC Batch No: A86693/A86674

Relative Percent Difference (RPD) for the duplicate analysis was outside of the allowable QC limits.

Sample 64263 (CS-33L)

Analyte: Sulfate

QC Batch No: A86693/A86674

Matrix spike duplicate recovery was outside QC acceptance limits, but LCS and MS recoveries were within limits. Matrix interference is not suspected.

00760

Providence Engineering
Emily Welch
1201 Main St.
Baton Rouge , LA 70802

Project 002-302
Information : Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Report Date : 10/13/2023
Received : 10/11/2023

Report Number : **23-284-0001**

REPORT OF ANALYSIS

Lab No : **64249**
Sample ID : **CS-5AR**

Matrix: **Solids**
Sampled: **10/9/2023 11:45**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Vanadium	37.9	mg/Kg	1.00	2	10/13/23 12:37	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

Providence Engineering
Emily Welch
1201 Main St.
Baton Rouge , LA 70802

Project 002-302
Information : Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Report Date : 10/13/2023
Received : 10/11/2023

Report Number : **23-284-0001**

REPORT OF ANALYSIS

Lab No : **64250**
Sample ID : **CS-14AR**

Matrix: **Solids**
Sampled: **10/9/2023 11:50**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Vanadium	35.6	mg/Kg	1.00	2	10/13/23 12:41	APB	6010D

**Qualifiers/
Definitions**

DF Dilution Factor MQL Method Quantitation Limit

00760

Providence Engineering
Emily Welch
1201 Main St.
Baton Rouge , LA 70802

Project 002-302
Information : Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Report Date : 10/13/2023
Received : 10/11/2023

Report Number : **23-284-0001**

REPORT OF ANALYSIS

Lab No : **64251**
Sample ID : **CS-18AR**

Matrix: **Solids**
Sampled: **10/9/2023 12:05**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Vanadium	26.7	mg/Kg	1.00	2	10/13/23 12:45	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

Providence Engineering
Emily Welch
1201 Main St.
Baton Rouge , LA 70802

Project 002-302
Information : Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Report Date : 10/13/2023
Received : 10/11/2023

Report Number : **23-284-0001**

REPORT OF ANALYSIS

Lab No : **64252**
Sample ID : **CS-20A**

Matrix: **Solids**
Sampled: **10/9/2023 10:00**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	54.5	mg/Kg	10.0	1	10/12/23 13:54		9056
pH	7.3	s.u.		1	10/12/23 11:55	APB	9045D
Arsenic	2.39	mg/Kg	1.00	2	10/13/23 12:50	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	10/13/23 12:50	APB	6010D
Copper	14.3	mg/Kg	1.00	2	10/13/23 12:50	APB	6010D
Nickel	19.5	mg/Kg	0.500	2	10/13/23 12:50	APB	6010D
Vanadium	29.2	mg/Kg	1.00	2	10/13/23 12:50	APB	6010D
Zinc	44.2	mg/Kg	2.50	2	10/13/23 12:50	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

Providence Engineering
Emily Welch
1201 Main St.
Baton Rouge , LA 70802

Project 002-302
Information : Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Report Date : 10/13/2023
Received : 10/11/2023

Report Number : **23-284-0001**

REPORT OF ANALYSIS

Lab No : **64253**
Sample ID : **CS-20B**

Matrix: **Solids**
Sampled: **10/9/2023 10:05**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	6050	mg/Kg	100	10	10/12/23 18:01	MJM	9056
pH	7.0	s.u.		1	10/12/23 11:55	APB	9045D
Arsenic	4.40	mg/Kg	1.00	2	10/13/23 12:54	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	10/13/23 12:54	APB	6010D
Copper	17.0	mg/Kg	1.00	2	10/13/23 12:54	APB	6010D
Nickel	23.0	mg/Kg	0.500	2	10/13/23 12:54	APB	6010D
Vanadium	39.5	mg/Kg	1.00	2	10/13/23 12:54	APB	6010D
Zinc	51.6	mg/Kg	2.50	2	10/13/23 12:54	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

Providence Engineering
Emily Welch
1201 Main St.
Baton Rouge , LA 70802

Project 002-302
Information : Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Report Date : 10/13/2023
Received : 10/11/2023

Report Number : **23-284-0001**

REPORT OF ANALYSIS

Lab No : **64254**
Sample ID : **CS-28A**

Matrix: **Solids**
Sampled: **10/9/2023 11:20**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	152	mg/Kg	10.0	1	10/12/23 14:18	MJM	9056
pH	7.4	s.u.		1	10/12/23 11:55	APB	9045D
Arsenic	5.11	mg/Kg	1.00	2	10/13/23 13:07	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	10/13/23 13:07	APB	6010D
Copper	18.4	mg/Kg	1.00	2	10/13/23 13:07	APB	6010D
Nickel	25.0	mg/Kg	0.500	2	10/13/23 13:07	APB	6010D
Vanadium	43.3	mg/Kg	1.00	2	10/13/23 13:07	APB	6010D
Zinc	55.6	mg/Kg	2.50	2	10/13/23 13:07	APB	6010D

**Qualifiers/
Definitions**

DF Dilution Factor

MQL Method Quantitation Limit

00760

Providence Engineering
Emily Welch
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Project 002-302
Information : Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Report Date : 10/13/2023
Received : 10/11/2023

Report Number : **23-284-0001**

REPORT OF ANALYSIS

Lab No : **64255**
Sample ID : **CS-28B**

Matrix: **Solids**
Sampled: **10/9/2023 10:15**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	498	mg/Kg	10.0	1	10/12/23 14:31	MJM	9056
pH	8.7	s.u.		1	10/12/23 11:55	APB	9045D
Arsenic	2.42	mg/Kg	1.00	2	10/13/23 13:12	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	10/13/23 13:12	APB	6010D
Copper	9.72	mg/Kg	1.00	2	10/13/23 13:12	APB	6010D
Nickel	13.1	mg/Kg	0.500	2	10/13/23 13:12	APB	6010D
Vanadium	22.7	mg/Kg	1.00	2	10/13/23 13:12	APB	6010D
Zinc	29.9	mg/Kg	2.50	2	10/13/23 13:12	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

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Report Date : 10/13/2023
Received : 10/11/2023

Report Number : **23-284-0001**

REPORT OF ANALYSIS

Lab No : **64256**
Sample ID : **CS-29A**

Matrix: **Solids**
Sampled: **10/9/2023 11:00**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	1140	mg/Kg	10.0	1	10/12/23 14:43	MJM	9056
pH	7.7	s.u.		1	10/12/23 11:55	APB	9045D
Arsenic	5.80	mg/Kg	1.00	2	10/13/23 13:16	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	10/13/23 13:16	APB	6010D
Copper	26.9	mg/Kg	1.00	2	10/13/23 13:16	APB	6010D
Nickel	22.3	mg/Kg	0.500	2	10/13/23 13:16	APB	6010D
Vanadium	37.7	mg/Kg	1.00	2	10/13/23 13:16	APB	6010D
Zinc	53.3	mg/Kg	2.50	2	10/13/23 13:16	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

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Project 002-302
Information : Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Report Date : 10/13/2023
Received : 10/11/2023

Report Number : **23-284-0001**

REPORT OF ANALYSIS

Lab No : **64257**
Sample ID : **CS-29B**

Matrix: **Solids**
Sampled: **10/9/2023 10:55**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	27.9	mg/Kg	10.0	1	10/12/23 14:55	MJM	9056
pH	8.0	s.u.		1	10/12/23 11:55	APB	9045D
Arsenic	3.05	mg/Kg	1.00	2	10/13/23 13:20	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	10/13/23 13:20	APB	6010D
Copper	9.82	mg/Kg	1.00	2	10/13/23 13:20	APB	6010D
Nickel	13.5	mg/Kg	0.500	2	10/13/23 13:20	APB	6010D
Vanadium	23.7	mg/Kg	1.00	2	10/13/23 13:20	APB	6010D
Zinc	27.0	mg/Kg	2.50	2	10/13/23 13:20	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

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Project 002-302
Information : Cleco Brame-Fly Ash Pond
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Report Date : 10/13/2023
Received : 10/11/2023

Report Number : **23-284-0001**

REPORT OF ANALYSIS

Lab No : **64258**
Sample ID : **CS-30A**

Matrix: **Solids**
Sampled: **10/9/2023 11:05**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	767	mg/Kg	10.0	1	10/12/23 15:08	MJM	9056
pH	9.8	s.u.		1	10/12/23 11:55	APB	9045D
Arsenic	1.15	mg/Kg	1.00	2	10/13/23 13:24	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	10/13/23 13:24	APB	6010D
Copper	4.34	mg/Kg	1.00	2	10/13/23 13:24	APB	6010D
Nickel	9.65	mg/Kg	0.500	2	10/13/23 13:24	APB	6010D
Vanadium	13.0	mg/Kg	1.00	2	10/13/23 13:24	APB	6010D
Zinc	16.1	mg/Kg	2.50	2	10/13/23 13:24	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

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Information : Cleco Brame-Fly Ash Pond
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Report Date : 10/13/2023
Received : 10/11/2023

Report Number : **23-284-0001**

REPORT OF ANALYSIS

Lab No : **64259**
Sample ID : **CS-30B**

Matrix: **Solids**
Sampled: **10/9/2023 10:35**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	442	mg/Kg	10.0	1	10/12/23 15:20	MJM	9056
pH	8.6	s.u.		1	10/12/23 11:55	APB	9045D
Arsenic	6.28	mg/Kg	1.00	2	10/13/23 13:28	APB	6010D
Cadmium	0.203	mg/Kg	0.200	2	10/13/23 13:28	APB	6010D
Copper	22.7	mg/Kg	1.00	2	10/13/23 13:28	APB	6010D
Nickel	31.1	mg/Kg	0.500	2	10/13/23 13:28	APB	6010D
Vanadium	42.3	mg/Kg	1.00	2	10/13/23 13:28	APB	6010D
Zinc	59.2	mg/Kg	2.50	2	10/13/23 13:28	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

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Information : Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Report Date : 10/13/2023
Received : 10/11/2023

Report Number : **23-284-0001**

REPORT OF ANALYSIS

Lab No : **64260**
Sample ID : **CS-31A**

Matrix: **Solids**
Sampled: **10/9/2023 11:15**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	543	mg/Kg	10.0	1	10/12/23 15:32	MJM	9056
pH	8.4	s.u.		1	10/12/23 11:55	APB	9045D
Arsenic	3.26	mg/Kg	1.00	2	10/13/23 13:33	APB	6010D
Cadmium	0.215	mg/Kg	0.200	2	10/13/23 13:33	APB	6010D
Copper	8.03	mg/Kg	1.00	2	10/13/23 13:33	APB	6010D
Nickel	17.8	mg/Kg	0.500	2	10/13/23 13:33	APB	6010D
Vanadium	31.5	mg/Kg	1.00	2	10/13/23 13:33	APB	6010D
Zinc	36.3	mg/Kg	2.50	2	10/13/23 13:33	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

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Project 002-302
Information : Cleco Brame-Fly Ash Pond
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Report Date : 10/13/2023
Received : 10/11/2023

Report Number : **23-284-0001**

REPORT OF ANALYSIS

Lab No : **64261**
Sample ID : **CS-31B**

Matrix: **Solids**
Sampled: **10/9/2023 10:30**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	54.1	mg/Kg	10.0	1	10/12/23 15:45	MJM	9056
pH	8.1	s.u.		1	10/12/23 11:55	APB	9045D
Arsenic	8.81	mg/Kg	1.00	2	10/13/23 13:37	APB	6010D
Cadmium	0.376	mg/Kg	0.200	2	10/13/23 13:37	APB	6010D
Copper	14.7	mg/Kg	1.00	2	10/13/23 13:37	APB	6010D
Nickel	30.3	mg/Kg	0.500	2	10/13/23 13:37	APB	6010D
Vanadium	45.5	mg/Kg	1.00	2	10/13/23 13:37	APB	6010D
Zinc	58.2	mg/Kg	2.50	2	10/13/23 13:37	APB	6010D

**Qualifiers/
Definitions**

DF Dilution Factor

MQL Method Quantitation Limit

00760

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Report Date : 10/13/2023
Received : 10/11/2023

Report Number : **23-284-0001**

REPORT OF ANALYSIS

Lab No : **64262**
Sample ID : **CS-32L**

Matrix: **Solids**
Sampled: **10/9/2023 10:25**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	267	mg/Kg	10.0	1	10/12/23 16:34	MJM	9056
pH	8.0	s.u.		1	10/12/23 11:55	APB	9045D
Arsenic	3.09	mg/Kg	1.00	2	10/13/23 13:41	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	10/13/23 13:41	APB	6010D
Copper	8.68	mg/Kg	1.00	2	10/13/23 13:41	APB	6010D
Nickel	16.8	mg/Kg	0.500	2	10/13/23 13:41	APB	6010D
Vanadium	25.9	mg/Kg	1.00	2	10/13/23 13:41	APB	6010D
Zinc	33.8	mg/Kg	2.50	2	10/13/23 13:41	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

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Report Date : 10/13/2023
Received : 10/11/2023

Report Number : **23-284-0001**

REPORT OF ANALYSIS

Lab No : **64263**
Sample ID : **CS-33L**

Matrix: **Solids**
Sampled: **10/9/2023 10:40**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	283	mg/Kg	10.0	1	10/12/23 16:47	MJM	9056
pH	8.1	s.u.		1	10/12/23 11:55	APB	9045D
Arsenic	3.49	mg/Kg	1.00	2	10/13/23 13:45	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	10/13/23 13:45	APB	6010D
Copper	3.38	mg/Kg	1.00	2	10/13/23 13:45	APB	6010D
Nickel	4.74	mg/Kg	0.500	2	10/13/23 13:45	APB	6010D
Vanadium	16.4	mg/Kg	1.00	2	10/13/23 13:45	APB	6010D
Zinc	10.9	mg/Kg	2.50	2	10/13/23 13:45	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

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Report Date : 10/13/2023
Received : 10/11/2023

Report Number : **23-284-0001**

REPORT OF ANALYSIS

Lab No : **64264**
Sample ID : **CS-41L**

Matrix: **Solids**
Sampled: **10/9/2023 11:30**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	2690	mg/Kg	50.0	5	10/13/23 09:14	MJM	9056
pH	7.2	s.u.		1	10/12/23 11:55	APB	9045D
Arsenic	3.54	mg/Kg	1.00	2	10/13/23 15:25	APB	6010D
Cadmium	0.287	mg/Kg	0.200	2	10/13/23 15:25	APB	6010D
Copper	15.4	mg/Kg	1.00	2	10/13/23 15:25	APB	6010D
Nickel	28.1	mg/Kg	0.500	2	10/13/23 15:25	APB	6010D
Vanadium	36.8	mg/Kg	1.00	2	10/13/23 15:25	APB	6010D
Zinc	56.6	mg/Kg	2.50	2	10/13/23 15:25	APB	6010D

**Qualifiers/
Definitions**

DF Dilution Factor

MQL Method Quantitation Limit

00760

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Information : Cleco Brame-Fly Ash Pond
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Report Date : 10/13/2023
Received : 10/11/2023

Report Number : **23-284-0001**

REPORT OF ANALYSIS

Lab No : **64265**
Sample ID : **CS-42L**

Matrix: **Solids**
Sampled: **10/9/2023 9:55**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	249	mg/Kg	10.0	1	10/12/23 17:36	MJM	9056
pH	7.9	s.u.		1	10/12/23 11:55	APB	9045D
Arsenic	3.55	mg/Kg	1.00	2	10/13/23 15:30	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	10/13/23 15:30	APB	6010D
Copper	9.32	mg/Kg	1.00	2	10/13/23 15:30	APB	6010D
Nickel	17.4	mg/Kg	0.500	2	10/13/23 15:30	APB	6010D
Vanadium	29.5	mg/Kg	1.00	2	10/13/23 15:30	APB	6010D
Zinc	32.7	mg/Kg	2.50	2	10/13/23 15:30	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

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Report Date : 10/13/2023
Received : 10/11/2023

Report Number : **23-284-0001**

REPORT OF ANALYSIS

Lab No : **64266**
Sample ID : **BD**

Matrix: **Solids**
Sampled: **10/9/2023 11:25**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	133	mg/Kg	10.0	1	10/12/23 17:48	MJM	9056
pH	7.5	s.u.		1	10/12/23 11:55	APB	9045D
Arsenic	4.80	mg/Kg	1.00	2	10/13/23 15:35	APB	6010D
Cadmium	0.233	mg/Kg	0.200	2	10/13/23 15:35	APB	6010D
Copper	13.7	mg/Kg	1.00	2	10/13/23 15:35	APB	6010D
Nickel	23.3	mg/Kg	0.500	2	10/13/23 15:35	APB	6010D
Vanadium	33.5	mg/Kg	1.00	2	10/13/23 15:35	APB	6010D
Zinc	45.0	mg/Kg	2.50	2	10/13/23 15:35	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

Quality Control Data

Client ID: Providence Engineering
Project Description: 002-302
Report No: 23-284-0001

QC Prep: A86692 **QC Analytical Batch(es):** A86743
QC Prep Batch Method: 3050B **Analysis Method:** 6010D
Analysis Description: Metals Analysis

Lab Reagent Blank LRB-A86692 Matrix: SOL
Associated Lab Samples: 64249, 64250, 64251, 64252, 64253, 64254, 64255, 64256, 64257, 64258, 64259, 64260, 64261, 64262, 64263, 64264, 64265, 64266

Parameter	Units	Blank Result	MQL	Analyzed
Arsenic	mg/Kg	< 0.500	0.500	10/13/23 12:25
Cadmium	mg/Kg	< 0.100	0.100	10/13/23 12:25
Copper	mg/Kg	< 0.500	0.500	10/13/23 12:25
Nickel	mg/Kg	< 0.250	0.250	10/13/23 12:25
Vanadium	mg/Kg	< 0.500	0.500	10/13/23 12:25
Zinc	mg/Kg	< 1.25	1.25	10/13/23 12:25

Laboratory Control Sample & LCSD LCS-A86692 LCSD-A86692

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Arsenic	mg/Kg	5.00	5.23	5.18	105	104	80-120	0.9	20.0
Cadmium	mg/Kg	5.00	5.38	5.30	108	106	80-120	1.4	20.0
Copper	mg/Kg	50.0	50.5	49.7	101	99.0	80-120	1.5	20.0
Nickel	mg/Kg	50.0	51.9	51.0	104	102	80-120	1.7	20.0
Vanadium	mg/Kg	50.0	52.0	51.4	104	103	80-120	1.1	20.0
Zinc	mg/Kg	50.0	51.8	50.1	104	100	80-120	3.3	20.0

Matrix Spike & Matrix Spike Duplicate A 64263-MS-A86692 A 64263-MSD-A86692

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Arsenic	mg/Kg	3.49	4.93	4.81	7.13	6.59	74.0*	64.0*	75-125	7.8	20.0
Cadmium	mg/Kg	< 0.200	4.93	4.81	4.66	4.62	95.0	96.0	75-125	0.8	20.0
Copper	mg/Kg	3.38	49.3	48.1	55.1	53.6	105	104	75-125	2.7	20.0
Nickel	mg/Kg	4.74	49.3	48.1	59.4	57.6	111	110	75-125	3.0	20.0
Vanadium	mg/Kg	16.4	49.3	48.1	63.9	63.3	96.0	97.0	75-125	0.9	20.0

Quality Control Data

Client ID: Providence Engineering

Project Description: 002-302

Report No: 23-284-0001

QC Prep: A86692

QC Prep Batch Method: 3050B

QC Analytical Batch(es): A86743

Analysis Method: 6010D

Analysis Description: Metals Analysis

Matrix Spike & Matrix Spike Duplicate A 64263-MS-A86692 A 64263-MSD-A86692

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Zinc	mg/Kg	10.9	49.3	48.1	60.8	59.4	101	101	75-125	2.3	20.0

Quality Control Data

Client ID: Providence Engineering

Project Description: 002-302

Report No: 23-284-0001

QC Analytical Batch: A86690

Analysis Method: 9045D

Analysis Description: pH in Solids

Duplicate A 64252-DUP

Parameter	Units	Result	DUP Result	RPD	Max RPD	Analyzed
pH	s.u.	7.3	7.3	0.0	10.0	10/12/23 11:55

Quality Control Data

Client ID: Providence Engineering
Project Description: 002-302
Report No: 23-284-0001

QC Prep: A86674 **QC Analytical Batch(es):** A86693
QC Prep Batch Method: SW-9056 (PREP) **Analysis Method:** 9056
Analysis Description: Anions by Ion Chromatography

Lab Reagent Blank LRB-A86674 Matrix: SOL
Associated Lab Samples: 64252, 64253, 64254, 64255, 64256, 64257, 64258, 64259, 64260, 64261, 64262, 64263, 64264, 64265, 64266

Parameter	Units	Blank Result	MQL	Analyzed
Sulfate	mg/Kg	< 10.0	10.0	10/12/23 13:29

Laboratory Control Sample LCS-A86674

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Sulfate	mg/Kg	625	650	104	80-120

Matrix Spike A 64263-MS-A86674

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	%Rec Limits	Max RPD
Sulfate	mg/Kg	283	597		903		104	80-120	

Shipment Receipt Form

Customer Number: **00760**
 Customer Name: **Providence Engineering**
 Report Number: **23-284-0001**

Shipping Method

Fed Ex US Postal Lab Other :
 UPS Client Courier Thermometer ID:

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="1"/>		
Custody seals intact on shipping container/cooler?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)		<input type="checkbox"/> Low concentration EnCore samplers (48 hr)	
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)		<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)	
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:

23-284-0001
00760
10-11-2023
09:10:47



Providence Engineering
002-302

Feu ex USPS
Courier Client Drop Off
Other

WW - Wastewater GW - Groundwater
DW - Drinking Water S - Soil /Solid O - Oil
P - Product M - Misc

RUSH - Additional charges apply
 Special Detection Limit(s)
 Date Results Needed

RECAP

Project Manager Email
emilywelch@providenceeng.com

Project Manager/Contact
Emily Welch

Project/Site Location (City/State)
Lena,
Rapides Parish, LA

Project Description
Cleco Brame-Fly Ash
Pond

Project Manager Phone #
225-766-7400

Project Number
002-302

Waypoint
ANALYTICAL
5041 Taravella Road
Marrero, LA 70072
(504)-371-8557

Sample Identification
Unless noted, all containers
per Table II of 40 CFR Part
136.

Date	Time	Sample Identification	Matrix (Refer to Key)	Number of Containers	Required Analysis / Preservative			Comments/Notes
					PH	Sulfate	*Metals	
10/9	1145	CS-5AR	S	1			X	64249
10/9	1150	CS-14AR	S	1			X	64250
10/9	1205	CS-16AR	S	1			X	64251
10/9	1000	CS-20A	S	1	X			64252
10/9	1005	CS-20B	S	1	X			64253
10/9	1120	CS-28A	S	1	X			64254
10/9	1015	CS-28B	S	1	X			64255
10/9	1100	CS-29A	S	1	X			64256
10/9	1055	CS-29B	S	1	X			64257
10/9	1105	CS-30A	S	1	X			64258

Client Remarks/Comments
*As, Cd, Cu, Ni, V, Zn
RUSH asap on AM

Sampled by (Name - Print)
Emily Welch


Reinquired by: (SIGNATURE)
Emily Welch

Reinquired by: (SIGNATURE)
F. Howard

Date	Time	Received by: (SIGNATURE)
10/9	1045	F. Howard
10/10	9:00	[Signature]
10/10	1600	[Signature]

Blank/Cooler Temp
4.2

Lab Comments
10/10/23 e
10/11/23 0800

Client Name/Address		Client Project Manager/Contact		Billing Information		For Laboratory Use Only	
Providence Engineering		Emily Welch		<input checked="" type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limit(s) <input type="checkbox"/> Date Results Needed RECAP		Method of Shipment <input type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other	
Project Description		Project/Site Location (City/State)		Project Manager Email		Matrix Key	
Cleco Brame-Fly Ash Pond		Lena, Rapides Parish, LA		emilywelch@providenceeng.com		WW - Wastewater GW - Groundwater DW - Drinking Water S - Soil / Solid O - Oil P - Product M - Misc	
Project Number		Project Manager Phone #		Project Manager Email		Site/Facility ID #	
002-302		225-766-7400		emilywelch@providenceeng.com			
 5041 Taravella Road Marrero, LA 70072 (504)-371-8557		Number of Containers Matrix (Refer to Key) (G)rab or (C)omposite		PH Sulfate *Metals		Required Analysis / Preservative	
Sample Identification Date Time		Unless noted, all containers per Table II of 40 CFR Part 136.		Comments/Notes		Matrix Key A Cool < 10C NA25203 (Micro Only) B Cool <= 6C C H2SO4 pH<2 D None Required E NaOH pH>10 F HNO3 pH<2 G HCL pH<2 H H3PO4 pH<2 I Cool <= 6C NA25203	
10/9 1035	CS-30B	1	S	G	X	X	64259
10/9 1115	CS-31A	1	S	G	X	X	64260
10/9 1030	CS-31B	1	S	G	X	X	64261
10/9 1025	CS-32L	1	S	G	X	X	64262 64262
10/9 1040	CS-33L	1	S	G	X	X	64263
10/9 1130	CS-41L	1	S	G	X	X	64264
10/9 0955	CS-42L	1	S	G	X	X	64265
10/9 1125	BD	1	S	G	X	X	64266
10/9 1040	MS	1	S	G	X	X	33L 64263
10/9 1040	MSD	1	S	G	X	X	33L
For Laboratory Use Only Ice Custody Seals Blank/Cooler Temp		Lab Comments Relinquished by: (SIGNATURE) Relinquished by: (SIGNATURE) Relinquished by: (SIGNATURE)		Sampled by (Name - Print) Relinquished by: (SIGNATURE) Relinquished by: (SIGNATURE) Relinquished by: (SIGNATURE)		Client Remarks/Comments * As, Cd, Cu, Ni, V, Zn RUSH asap on am	
0/N	Y/NO	Emily Welch		Date Time	Date Time	Date Time	Date Time
	4.20	Emily Welch		10/9 8:43	10/10 9:00	10/10/03	10/10/03 8:43
		Emily Welch					0900
		Emily Welch					10/10/03
		Emily Welch					10/10/03
		Emily Welch					10/11/230800



9/13/2023

Providence Engineering
Emily Welch
1201 Main St.
Baton Rouge, LA, 70802

Ref: Report Number: 23-251-0025
Project Description: 002-302
Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Dear Emily Welch:

Waypoint Analytical Louisiana, Inc. received sample(s) on 9/8/2023 for the analyses presented in the following report. The above referenced project has been analyzed per your instructions. Unless otherwise noted, the analyses were performed in our laboratory in accordance with Standard Methods, The Solid Waste Manual SW-846, EPA Methods for Chemical Analysis of Water and Wastes and /or 40 CFR part 136.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance. Analyses reported which indicate "Field" for these parameters were analyzed by the client in the field. Results for solid samples are reported on an as received or "wet weight" basis unless otherwise specified.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2021) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

All quality control measures undertaken in accordance with Waypoint Analytical Louisiana, Inc. CompQAP990807A and revisions under the terms of the Louisiana Environmental Laboratory Accreditation Program (Certificate #02041) are within acceptance ranges established in that document with the exception of the items indicated and/or discussed in a Case Narrative.

The results are shown on the attached analysis sheet(s). Be aware that the time analyzed for certain samples (e.g. - BOD, CBOD, etc.) refer to the time the sample batch was begun and not necessarily to the time an individual sample was begun. Thank you for allowing Waypoint Analytical Louisiana, Inc. to serve you. Should I be of further assistance, if you have any questions or need additional information please contact me or client services.

Sincerely,

Amy Jackson
Project Manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis. This report may be reproduced in full only with the written permission of the laboratory and/or the entity to which it is addressed. Results contained herein relate only to the sample(s) submitted to the laboratory.





5041 Taravella Road, Marrero, LA 70072
Main 504-371-8557 ° Fax 504-371-8560
www.waypointanalytical.com

Certification Summary

Laboratory ID: WP MLA: Waypoint Analytical Louisiana, Inc., Marrero, LA

<u>State</u>	<u>Program</u>	<u>Lab ID</u>	<u>Expiration Date</u>
Georgia	State Program	02041	06/30/2024
Louisiana	State Program - NELAP	02041	06/30/2024

Sample Summary Table

Report Number: 23-251-0025
Client Project Description: 002-302
Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
61675	CS - 12A	Solids	09/06/2023 14:50	09/08/2023
61676	CS - 12B	Solids	09/06/2023 14:55	09/08/2023
61681	CS - 15A	Solids	09/06/2023 12:25	09/08/2023
61682	CS - 15B	Solids	09/06/2023 12:25	09/08/2023
61703	CS - 27A	Solids	09/06/2023 15:30	09/08/2023
61704	CS - 27B	Solids	09/06/2023 15:30	09/08/2023

Client: Providence Engineering
Project: 002-302
Lab Report Number: 23-251-0025
Date: 9/13/2023

CASE NARRATIVE

Metals Analysis Method 6010D

Sample 61675 (CS - 12A)

Analyte: Arsenic

QC Batch No: A85800/A85741

The matrix spike and/or the matrix spike duplicate was outside quality control acceptance ranges. A dilution test was performed and passed quality control acceptance ranges. No matrix interference is suspected.

Anions by Ion Chromatography Method 9056

Sample 61675 (CS - 12A)

Analyte: Sulfate

QC Batch No: A85747/A85738

Matrix spike/matrix spike duplicate recoveries are outside of control limits. Acceptable LCS recovery indicates the system was in control, but the reported result could be affected by matrix interference.

00760

Providence Engineering
Emily Welch
1201 Main St.
Baton Rouge , LA 70802

Project 002-302
Information : Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Report Date : 09/13/2023
Received : 09/08/2023

Report Number : **23-251-0025**

REPORT OF ANALYSIS

Lab No : **61675**
Sample ID : **CS - 12A**

Matrix: **Solids**
Sampled: **9/6/2023 14:50**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	5330	mg/Kg	100	10	09/11/23 16:13	MJM	9056
pH	6.7	s.u.		1	09/12/23 09:37	APB	9045D
Arsenic	5.28	mg/Kg	1.00	2	09/12/23 18:24	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/12/23 18:24	APB	6010D
Copper	15.7	mg/Kg	1.00	2	09/12/23 18:24	APB	6010D
Nickel	20.1	mg/Kg	0.500	2	09/12/23 18:24	APB	6010D
Vanadium	36.3	mg/Kg	1.00	2	09/12/23 18:24	APB	6010D
Zinc	39.7	mg/Kg	2.50	2	09/12/23 18:24	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

Providence Engineering
Emily Welch
1201 Main St.
Baton Rouge , LA 70802

Project 002-302
Information : Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Report Date : 09/13/2023
Received : 09/08/2023

Report Number : **23-251-0025**

REPORT OF ANALYSIS

Lab No : **61676**
Sample ID : **CS - 12B**

Matrix: **Solids**
Sampled: **9/6/2023 14:55**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	11300	mg/Kg	100	10	09/11/23 16:50	MJM	9056
pH	7.0	s.u.		1	09/12/23 09:37	APB	9045D
Arsenic	4.29	mg/Kg	1.00	2	09/12/23 18:52	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/12/23 18:52	APB	6010D
Copper	16.9	mg/Kg	1.00	2	09/12/23 18:52	APB	6010D
Nickel	26.5	mg/Kg	0.500	2	09/12/23 18:52	APB	6010D
Vanadium	34.7	mg/Kg	1.00	2	09/12/23 18:52	APB	6010D
Zinc	46.0	mg/Kg	2.50	2	09/12/23 18:52	APB	6010D

**Qualifiers/
Definitions**

DF Dilution Factor MQL Method Quantitation Limit

00760

Providence Engineering
Emily Welch
1201 Main St.
Baton Rouge , LA 70802

Project 002-302
Information : Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Report Date : 09/13/2023
Received : 09/08/2023

Report Number : **23-251-0025**

REPORT OF ANALYSIS

Lab No : **61681**
Sample ID : **CS - 15A**

Matrix: **Solids**
Sampled: **9/6/2023 12:25**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	6790	mg/Kg	100	10	09/11/23 17:03	MJM	9056
pH	8.4	s.u.		1	09/12/23 09:37	APB	9045D
Arsenic	4.49	mg/Kg	1.00	2	09/12/23 18:56	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/12/23 18:56	APB	6010D
Copper	17.8	mg/Kg	1.00	2	09/12/23 18:56	APB	6010D
Nickel	24.7	mg/Kg	0.500	2	09/12/23 18:56	APB	6010D
Vanadium	41.2	mg/Kg	1.00	2	09/12/23 18:56	APB	6010D
Zinc	46.4	mg/Kg	2.50	2	09/12/23 18:56	APB	6010D

**Qualifiers/
Definitions**

DF Dilution Factor MQL Method Quantitation Limit

00760

Providence Engineering
Emily Welch
1201 Main St.
Baton Rouge , LA 70802

Project 002-302
Information : Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Report Date : 09/13/2023
Received : 09/08/2023

Report Number : **23-251-0025**

REPORT OF ANALYSIS

Lab No : **61682**
Sample ID : **CS - 15B**

Matrix: **Solids**
Sampled: **9/6/2023 12:25**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	4460	mg/Kg	100	10	09/11/23 17:15	MJM	9056
pH	7.7	s.u.		1	09/12/23 09:37	APB	9045D
Arsenic	4.48	mg/Kg	1.00	2	09/12/23 19:00	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/12/23 19:00	APB	6010D
Copper	15.0	mg/Kg	1.00	2	09/12/23 19:00	APB	6010D
Nickel	20.1	mg/Kg	0.500	2	09/12/23 19:00	APB	6010D
Vanadium	31.0	mg/Kg	1.00	2	09/12/23 19:00	APB	6010D
Zinc	41.3	mg/Kg	2.50	2	09/12/23 19:00	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

Providence Engineering
Emily Welch
1201 Main St.
Baton Rouge , LA 70802

Project 002-302
Information : Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Report Date : 09/13/2023
Received : 09/08/2023

Report Number : **23-251-0025**

REPORT OF ANALYSIS

Lab No : **61703**
Sample ID : **CS - 27A**

Matrix: **Solids**
Sampled: **9/6/2023 15:30**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	216	mg/Kg	10.0	1	09/11/23 15:12	MJM	9056
pH	7.6	s.u.		1	09/12/23 09:37	APB	9045D
Arsenic	3.17	mg/Kg	1.00	2	09/12/23 19:04	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/12/23 19:04	APB	6010D
Copper	14.9	mg/Kg	1.00	2	09/12/23 19:04	APB	6010D
Nickel	26.0	mg/Kg	0.500	2	09/12/23 19:04	APB	6010D
Vanadium	29.6	mg/Kg	1.00	2	09/12/23 19:04	APB	6010D
Zinc	44.1	mg/Kg	2.50	2	09/12/23 19:04	APB	6010D

**Qualifiers/
Definitions**

DF Dilution Factor MQL Method Quantitation Limit

00760

Providence Engineering
Emily Welch
1201 Main St.
Baton Rouge , LA 70802

Project 002-302
Information : Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Report Date : 09/13/2023
Received : 09/08/2023

Report Number : **23-251-0025**

REPORT OF ANALYSIS

Lab No : **61704**
Sample ID : **CS - 27B**

Matrix: **Solids**
Sampled: **9/6/2023 15:30**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	103	mg/Kg	10.0	1	09/11/23 15:24	MJM	9056
pH	7.7	s.u.		1	09/12/23 09:37	APB	9045D
Arsenic	2.43	mg/Kg	1.00	2	09/12/23 19:08	APB	6010D
Cadmium	<0.200	mg/Kg	0.200	2	09/12/23 19:08	APB	6010D
Copper	12.5	mg/Kg	1.00	2	09/12/23 19:08	APB	6010D
Nickel	18.4	mg/Kg	0.500	2	09/12/23 19:08	APB	6010D
Vanadium	23.5	mg/Kg	1.00	2	09/12/23 19:08	APB	6010D
Zinc	37.2	mg/Kg	2.50	2	09/12/23 19:08	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

Quality Control Data

Client ID: Providence Engineering
Project Description: 002-302
Report No: 23-251-0025

QC Prep: A85741 **QC Analytical Batch(es):** A85800
QC Prep Batch Method: 3050B **Analysis Method:** 6010D
Analysis Description: Metals Analysis

Lab Reagent Blank LRB-A85741 Matrix: SOL
Associated Lab Samples: 61675, 61676, 61681, 61682, 61703, 61704

Parameter	Units	Blank Result	MQL	Analyzed
Arsenic	mg/Kg	< 0.500	0.500	09/12/23 21:03
Cadmium	mg/Kg	< 0.100	0.100	09/12/23 21:03
Copper	mg/Kg	< 0.500	0.500	09/12/23 21:03
Nickel	mg/Kg	< 0.250	0.250	09/12/23 21:03
Vanadium	mg/Kg	< 0.500	0.500	09/12/23 21:03
Zinc	mg/Kg	< 1.25	1.25	09/12/23 21:03

Laboratory Control Sample & LCSD LCS-A85741 LCSD-A85741

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Arsenic	mg/Kg	5.00	4.91	4.92	98.0	98.0	80-120	0.2	20.0
Cadmium	mg/Kg	5.00	5.17	5.11	103	102	80-120	1.1	20.0
Copper	mg/Kg	50.0	52.3	51.3	105	103	80-120	1.9	20.0
Nickel	mg/Kg	50.0	53.0	52.2	106	104	80-120	1.5	20.0
Vanadium	mg/Kg	50.0	50.2	49.8	100	100	80-120	0.8	20.0
Zinc	mg/Kg	50.0	48.6	48.1	97.0	96.0	80-120	1.0	20.0

Matrix Spike & Matrix Spike Duplicate A 61675-MS-A85741 A 61675-MSD-A85741

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Arsenic	mg/Kg	5.28	4.99	4.88	9.13	8.35	77.0	63.0*	75-125	8.9	20.0
Cadmium	mg/Kg	< 0.200	4.99	4.88	4.43	4.40	89.0	90.0	75-125	0.6	20.0
Copper	mg/Kg	15.7	49.9	48.8	64.8	61.0	98.0	93.0	75-125	6.0	20.0
Nickel	mg/Kg	20.1	49.9	48.8	70.6	70.5	101	103	75-125	0.1	20.0
Vanadium	mg/Kg	36.3	49.9	48.8	82.0	76.4	92.0	82.0	75-125	7.0	20.0

Quality Control Data

Client ID: Providence Engineering

Project Description: 002-302

Report No: 23-251-0025

QC Prep: A85741

QC Prep Batch Method: 3050B

QC Analytical Batch(es): A85800

Analysis Method: 6010D

Analysis Description: Metals Analysis

Matrix Spike & Matrix Spike Duplicate A 61675-MS-A85741 A 61675-MSD-A85741

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Zinc	mg/Kg	39.7	49.9	48.8	81.8	79.9	84.0	82.0	75-125	2.3	20.0

Quality Control Data

Client ID: Providence Engineering

Project Description: 002-302

Report No: 23-251-0025

QC Analytical Batch: A85753

Analysis Method: 9045D

Analysis Description: pH in Solids

Duplicate A 61676-DUP

Parameter	Units	Result	DUP Result	RPD	Max RPD	Analyzed
pH	s.u.	7.0	7.4	5.5	10.0	09/12/23 09:37

Quality Control Data

Client ID: Providence Engineering

Project Description: 002-302

Report No: 23-251-0025

QC Prep: A85738

QC Analytical Batch(es): A85747

QC Prep Batch Method: SW-9056 (PREP)

Analysis Method: 9056

Analysis Description: Anions by Ion Chromatography

Lab Reagent Blank

LRB-A85738

Matrix: SOL

Associated Lab Samples: 61675, 61676, 61681, 61682, 61703, 61704

Parameter	Units	Blank Result	MQL	Analyzed
Sulfate	mg/Kg	< 10.0	10.0	09/11/23 13:33

Laboratory Control Sample

LCS-A85738

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Sulfate	mg/Kg	625	604	96.6	80-120

Shipment Receipt Form

Customer Number: **00760**
 Customer Name: **Providence Engineering**
 Report Number: **23-251-0025**

Shipping Method

Fed Ex US Postal Lab Other :
 UPS Client Courier Thermometer ID:

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="1"/>		
Custody seals intact on shipping container/cooler?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)		<input type="checkbox"/> Low concentration EnCore samplers (48 hr)	
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)		<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)	
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:

23-251-0024
00760
09-08-2023
14:34:09

23-251-0025
00760
09-08-2023
15:03:28

Providence Engineering
002-302

Providence Engineering
002-302

RUSH - Additional charges apply
 Special Detection Limit(s)
Date Results Needed

Metho:
 Fec
 Cot
Ott

RECAP

Billing Information

Project Manager Email
emilywelch@providenceeng.com

Client Name/Address
Providence Engineering

Client Project Manager/Contact
Emily Welch

Project Description
Cleco Brame-Fly Ash Pond

Project/Site Location (City/State)
Lena, Rapides Parish, LA

Project Number
002-302

Project Manager Phone #
225-766-7400

Waypoint
ANALYTICAL

5041 Taravilla Road
Marrero, LA 70072
(504)-371-8557

Sample Identification

Unless noted, all containers per Table II of 40 CFR Part 136.

Date	Time	Sample Identification	Number of Containers	Matrix (Refer to Key)	(g)rab or (C)omposite	Required Analysis / Preservative			Comments/Notes
						PH	Sulfate	*Metals	
9/17	0850	CS-1A	1	S	G	X	X	X	61653
9/17	0855	CS-1B	1	S	G	X	X	X	61654
9/16	1600	CS-2A	1	S	G	X	X	X	61655
9/16	1600	CS-2B	1	S	G	X	X	X	61656
9/16	1445	CS-3A	1	S	G	X	X	X	61657
9/16	1500	CS-3B	1	S	G	X	X	X	61658
9/16	1440	CS-4A	1	S	G	X	X	X	61659
9/16	1450	CS-4B	1	S	G	X	X	X	61660
9/16	1305	CS-5A	1	S	G	X	X	X	61661
9/16	1305	CS-5B	1	S	G	X	X	X	61662

Client Remarks/Comments

* As, Cd, Cu, Ni, V, Zn

Sampled by (Name - Print)
Emily Welch + Andrew Creel

Relinquished by: (SIGNATURE)
Emily Welch 9/18/23

Relinquished by: (SIGNATURE)
Andrew Creel 9/18/23

Relinquished by: (SIGNATURE)
Emily Welch 9/18/23

Relinquished by: (SIGNATURE)
Andrew Creel 9/18/23

For Laboratory Use Only

Lab Comments
Rushes on separate report - cdv

Ice
0/N


Custody Seals
Y/N


Blank/Cooler Temp
2.1°C


Date Time
9/18/23 10/0


Date Time
9/18/23 1330

Date Time
9/18/23 1330

Client Name/Address		Client Project Manager/Contact		Billing Information		For Laboratory Use Only					
Providence Engineering		Emily Welch		<input type="checkbox"/> RUSH - Additional charges apply <input checked="" type="checkbox"/> Special Detection Limit(s) Date Results Needed RECAP		<input type="checkbox"/> Fed Ex <input type="checkbox"/> Courier <input type="checkbox"/> Other		<input type="checkbox"/> UPS <input type="checkbox"/> Client Drop Off		Matrix Key WW - Wastewater GW - Groundwater DW - Drinking Water S - Soil / Solid O - Oil P - Product M - Misc	
Project Description		Project/Site Location (City/State)		Project Manager Email		Purchase Order Number		Site/Facility ID #			
Cleco Brame-Fly Ash Pond		Lena, Rapides Parish, LA		emilywelch@providenceeng.com							
Project Number		Project Manager Phone #		Required Analysis / Preservative		Required Analysis / Preservative		Required Analysis / Preservative		Comments/Notes	
002-302		225-766-7400		pH		Sulfate		*Metals			
 5041 Taravella Road Marrero, LA 70072 (504)-371-8557		Number of Containers Matrix (Refer to Key)		(S)rab or (C)omposite							
Sample Identification Unless noted, all containers per Table II of 40 CFR Part 136.											
Date	Time	Sample Identification	Number of Containers	Matrix (Refer to Key)	(S)rab or (C)omposite	pH	Sulfate	*Metals	Required Analysis / Preservative	Required Analysis / Preservative	Comments/Notes
9/16	1240	CS-6A	1	S	G	X	X	X			61663 61663
9/16	1240	CS-6B	1	S	G	X	X	X			61664
9/16	1235	CS-7A	1	S	G	X	X	X			61665
9/16	1230	CS-7B	1	S	G	X	X	X			61666
9/16	1130	CS-8A	1	S	G	X	X	X			61667
9/16	1135	CS-8B	1	S	G	X	X	X			61668
9/17	0900	CS-9A	1	S	G	X	X	X			61669
9/17	0905	CS-9B	1	S	G	X	X	X			61670
9/16	1555	CS-10A	1	S	G	X	X	X			61671
9/16	1555	CS-10B	1	S	G	X	X	X			61672
Ice		Custody Seals		Sampled by (Name - Print)		Client Remarks/Comments		Date Time		Date Time	
STN		Y10		Emily Welch + Andrew Creed		* As, Cd, Cu, Ni, V, Zn		9/16 1010		9/18/23	
Blank/Cooler Temp		2.1		Relinquished by: (SIGNATURE)		Date Time		Date Time		Date Time	
				Emily Welch		1330		9/18/23		9/18/23 1330	
				Relinquished by: (SIGNATURE)		Date Time		Date Time		Date Time	
				Relinquished by: (SIGNATURE)		Date Time		Date Time		Date Time	
				Relinquished by: (SIGNATURE)		Date Time		Date Time		Date Time	

Client Name/Address		Client Project Manager/Contact		Billing Information		For Laboratory Use Only	
Providence Engineering		Emily Welch		<input type="checkbox"/> RUSH - Additional charges apply <input checked="" type="checkbox"/> Special Detection Limit(s) Date Results Needed RECAP		Matrix Key WW - Wastewater GW - Groundwater DW - Drinking Water S - Soil / Solid O - Oil P - Product M - Misc	
Project Description		Project/Site Location (City/State)		Method of Shipment		Site/Facility ID #	
Cleco Brame-Fly Ash Pond		Lena, Rapides Parish, LA		<input type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other			
Project Number		Project Manager Phone #		Project Manager Email		Purchase Order Number	
002-302		225-766-7400		emilywelch@providenceeng.com			
 5041 Taravella Road Marrero, LA 70072 (504)-371-8557		Number of Containers Matrix (Refer to Key)		PH Sulfate *Metals		Required Analysis / Preservative	
Sample Identification		Matrix (Refer to Key)		Required Analysis / Preservative		Comments/Notes	
Date	Time						
9/16	1505	CS-11A	1	X	X		61673
9/16	1505	CS-11B	1	X	X		61674
9/16	1450	CS-12A	1	X	X		RUSH - ASAP
9/16	1455	CS-12B	1	X	X		RUSH - ASAP
9/16	1300	CS-13A	1	X	X		61677
9/16	1300	CS-13B	1	X	X		61678
9/16	1245	CS-14A	1	X	X		61679
9/16	1245	CS-14B	1	X	X		61680
9/16	1225	CS-15A	1	X	X		RUSH - ASAP 61681
9/16	1225	CS-15B	1	X	X		RUSH - ASAP 61682
Ice		Custody Seals		Lab Comments		Client Remarks/Comments	
A/N		Y/N		Sampled by: (Name - Print) Relinquished by: (SIGNATURE) Relinquished by: (SIGNATURE) Relinquished by: (SIGNATURE)		* As, Cd, Cu, Ni, V, Zn Date Time Date Time Date Time	
Blank/Cooler Temp		21°C		Date Time Date Time Date Time		Received by: (SIGNATURE) Received by: (SIGNATURE) Received by: (SIGNATURE)	
				Date Time Date Time Date Time		Date Time Date Time Date Time	

Client Name/Address		Client Project Manager/Contact		Billing Information		For Laboratory Use Only	
Providence Engineering		Emily Welch		<input type="checkbox"/> RUSH - Additional charges apply <input checked="" type="checkbox"/> Special Detection Limit(s) Date Results Needed RECAP		Matrix Key WW - Wastewater GW - Groundwater DW - Drinking Water S - Soil / Solid O - Oil P - Product M - Misc	
Project Description Cleco Brame-Fly Ash Pond		Project/Site Location (City/State) Lena, Rapides Parish, LA		Project Manager Email emilywelch@providenceeng.com		Method of Shipment <input type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other	
Project Number 002-302		Project Manager Phone # 225-766-7400		Project Manager Email emilywelch@providenceeng.com		Purchase Order Number	
 5041 Taravelle Road Marrero, LA 70072 (504)-371-8557		Number of Containers Matrix (Refer to Key)		PH Sulfate *Metals		Comments/Notes Cool < 10C Na2S2O3 (Micro Only) A Cool <= 6C B H2SO4 pH<2 C None Required D NaOH pH>10 E HNO3 pH<2 F HCL pH<2 G H3PO4 pH<2 H Cool <= 6C NA2S2O3 I	
Date Time 9/16 1130		Sample Identification CS-16A		(g)rab or (C)omposite G		Required Analysis / Preservative X X	
9/16 1140		CS-16B		G		X X	
9/17 0905		CS-17A		G		X X	
9/17 0910		CS-17B		G		X X	
9/16 1550		CS-18A		G		X X	
9/16 1545		CS-18B		G		X X	
9/16 1510		CS-19A		G		X X	
9/16 1510		CS-19B		G		X X	
CS-20A		CS-20A		G		X X	
CS-20B		CS-20B		G		X X	
Ice A/N		Custody Seals Y/N		Lab Comments 2.1°C		Client Remarks/Comments *As, Cd, Cu, Ni, V, Zn	
Blank/Cooler Temp 2.1°C		Relinquished by: (SIGNATURE) <i>Emily Welch + Andrew Greel</i>		Relinquished by: (SIGNATURE) <i>Emily Welch</i>		Date Time 9/16 1010	
Relinquished by: (SIGNATURE) <i>[Signature]</i>		Relinquished by: (SIGNATURE) <i>[Signature]</i>		Date Time 1330		Date Time 9/18/23	
Relinquished by: (SIGNATURE) <i>[Signature]</i>		Relinquished by: (SIGNATURE) <i>[Signature]</i>		Date Time 9/18/23		Date Time 9/18/23 1330	

Client Name/Address		Client Project Manager/Contact		Billing Information		For Laboratory Use Only	
Providence Engineering		Emily Welch		<input type="checkbox"/> RUSH - Additional charges apply <input checked="" type="checkbox"/> Special Detection Limit(s) Date Results Needed RECAP		Matrix Key WW - Wastewater GW - Groundwater DW - Drinking Water S - Soil / Solid O - Oil P - Product M - Misc	
Project Description		Project/Site Location (City/State)		Method of Shipment		Site/Facility ID #	
Cleco Brame-Fly Ash Pond		Lena, Rapides Parish, LA		<input type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other			
Project Number		Project Manager Phone #		Project Manager Email		Purchase Order Number	
002-302		225-766-7400		emilywelch@providenceeng.com			
 5041 Taravella Road Marrero, LA 70072 (504)-371-8557		Number of Containers Matrix (Refer to Key)		PH Sulfate *Metals		Required Analysis / Preservative	
Sample Identification Unless noted, all containers per Table II of 40 CFR Part 136.						Comments/Notes	
Date	Time						
9/16	1255	CS-21A	1	S	G	X	X
9/16	1255	CS-21B	1	S	G	X	X
9/16	1250	CS-22A	1	S	G	X	X
9/16	1250	CS-22B	1	S	G	X	X
9/16	1140	CS-23A	1	S	G	X	X
9/16	1145	CS-23B	1	S	G	X	X
9/16	1140	CS-24A	1	S	G	X	X
9/16	1145	CS-24B	1	S	G	X	X
9/16	1115	CS-25A	1	S	G	X	X
9/16	1125	CS-25B	1	S	G	X	X
Date Time		Date Time		Date Time		Date Time	
9/16 1255 9/16 1255 9/16 1250 9/16 1250 9/16 1140 9/16 1145 9/16 1140 9/16 1145 9/16 1115 9/16 1125		10/10 10/10 1330 1330		9/18/23 9/18/23 9/18/23 9/18/23		61691 61692 61693 61694 61695 61696 61697 61698 61699 61700 61701 61702	
Ice 6/N		Custody Seals Y/N		Blank/Cooler Temp 2.1°C		Client Remarks/Comments *As, Cd, Cu, Ni, V, Zn	
Relinquished by: (SIGNATURE) Emily Welch + Andrew Creed		Relinquished by: (SIGNATURE) Emily Welch		Relinquished by: (SIGNATURE) Andrew Creed		Received by: (SIGNATURE) [Signature]	
Relinquished by: (SIGNATURE) [Signature]		Relinquished by: (SIGNATURE) [Signature]		Relinquished by: (SIGNATURE) [Signature]		Received by: (SIGNATURE) [Signature]	

For Laboratory Use Only

Billing Information

Client Project Manager/Contact

Client Name/Address

Method of Shipment
 Fed Ex UPS USPS
 Courier Client Drop Off
 Other

Matrix Key
 WW - Wastewater GW - Groundwater
 DW - Drinking Water S - Soil / Solid O - Oil
 P - Product M - Misc

RUSH - Additional charges apply
 Special Detection Limit(s)
 Date Results Needed
 on certain ones RECAP

Project Manager Email
 emily.welch@providenceeng.com

Project Description
 Fly Ash Pond

Site/Facility ID #

Purchase Order Number

Project Manager Phone #
 225-746-7400

Project Manager/Contact
 Emily Welch

Project Number
 002-302

Waypoint ANALYTICAL
 235 Highpoint Dr.
 Ridgeland, MS 39157
 (601) 957-2676

Unless noted, all containers per Table II of 40 CFR Part 136.

Matrix (Refer to Key)

Number of Containers

Sample Identification

Required Analysis / Preservative

Comments/Notes

Required Analysis / Preservative

Sample Identification

Date Time

Client Remarks/Comments
 *As, Cd, Cu, Ni, V, Zn

Received by (SIGNATURE)
 Date Time

Received by (SIGNATURE)
 Date Time

Received by (SIGNATURE)
 Date Time

Blank/Cooler Temp
 2.1°C

For Laboratory Use Only

Billing Information

Client Project Manager/Contact

Client Name/Address

Method of Shipment
 Fed Ex
 Courier
 UPS
 Client Drop Off
 Other

Matrix Key
 WW - Wastewater GW - Groundwater
 DW - Drinking Water S - Soil /Solid O - Oil
 P - Product M - Misc

RUSH - Additional charges apply
 Special Detection Limit(s)
 Date Results Needed
 Recap

Project Manager/Contact
 Emily Welch
 Lena

Project Description
 Fly Ash Pond
 Prov Eng

Site/Facility ID #

Purchase Order Number

Project Manager Email
 emilywelch@providenceeng.com

Project Manager Phone #
 225-766-7400

Project Number
 002-302

Comments/Notes
 Cool <= 10C Na2S2O3 (Micro Only)
 A Cool <= 6C
 B H2SO4 pH<2
 C None Required
 D NaOH pH>10
 E HNO3 pH<2
 F HCL pH<2
 G H3PO4 pH<2
 H Cool <= 6C NA2S2O3
 I

Required Analysis / Preservative

Number of Containers
 Matrix (Refer to Key)
 (G)rab or (C)omposite

Sample Identification
 Unless noted, all containers per Table II of 40 CFR Part 136.

Date Time

9/17	0820	CS-40L	1	S	G	X	X	X	61713	61711
9/16	1550	MS-03 @CS-18A	1	S	G	X	X	X	61714	61687
9/16	1550	MSD-03 @CS-18A	1	S	G	X	X	X		
9/16	1120	BD-01	1	S	G	X	X	X		
9/16	1440	BD-02	1	S	G	X	X	X		
9/16	1535	BD-03	1	S	G	X	X	X		
9/16	1450	MS-02 @CS-4B	1	S	G	X	X	X		
9/16	1450	MSD-02 @CS-4B	1	S	G	X	X	X		
9/16	1115	MSP @CS-25A	1	S	G	X	X	X		
9/16	1115	MS @CS-25A	1	S	G	X	X	X		

Client Remarks/Comments
 * AS, Cd, Cu, Ni, V, Zn

Sampled by (Name - Print)
 Emily Welch + Andrew Greed

Relinquished by: (SIGNATURE)
 Emily Welch

Relinquished by: (SIGNATURE)
 Andrew Greed

Date Time
 9/18/10
 1330

Received by: (SIGNATURE)
 [Signature]


Received by: (SIGNATURE)
 [Signature]

Date Time
 9/18/23

Received by: (SIGNATURE)
 [Signature]



235 Highpoint Dr.
 Ridgeland, MS 39157
 (601) 957-2676

Client Name/Address		Client Project Manager/Contact		Billing Information		For Laboratory Use Only	
Providence Engineering		Emily Welch		<input checked="" type="checkbox"/> RUSH - Additional charges apply <input checked="" type="checkbox"/> Special Detection Limit(s) Date Results Needed: RUSH on certain metals RECAP		Matrix Key WW - Wastewater GW - Groundwater DW - Drinking Water S - Soil / Solid O - Oil P - Product M - Misc	
Project Description		Project/Site Location (City/State)		Method of Shipment		Site/Facility ID #	
Cleco Brame-Fly Ash Pond		Lena, Rapides Parish, LA		<input type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other			
Project Number		Project Manager Phone #		Project Manager Email		Purchase Order Number	
002-302		225-766-7400		emilywelch@providenceeng.com			
 5041 Taravella Road Marrero, LA 70072 (504)-371-8557		Number of Containers Matrix (Refer to Key)		PH Sulfate *Metals		Required Analysis / Preservative Comments/Notes	
Sample Identification Unless noted, all containers per Table II of 40 CFR Part 136.							
Date	Time						
9/16	0915	1	S	X			61723
9/16	0915	1	S	X			61724
9/16	0920	1	S	X			61725
9/16	0920	1	S	X			61726
9/16	0925	1	S	X			61727
9/16	0925	1	S	X			61728
9/16	0925	1	S	X			61729
9/16	0925	1	S	X			61730
For Laboratory Use Only Lab Comments		Custody Seals Y/NO		Client Remarks/Comments * As, Cd, Cu, Ni, V, Zn		Date Time	
Ice O/N		Relinquished by: (SIGNATURE) Emily Welch + Andrew Creel		Date Time 9/16 1010		Received by: (SIGNATURE) 9/18/03	
Blank/Cooler Temp 2.1		Relinquished by: (SIGNATURE) Emily Welch		Date Time 1330		Received by: (SIGNATURE) Andrew Creel	
		Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)	
				Date Time		Received by: (SIGNATURE)	



9/29/2023

Providence Engineering
Emily Welch
1201 Main St.
Baton Rouge, LA, 70802

Ref: Report Number: 23-265-0027
Project Description: 002-302
Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Dear Emily Welch:

Waypoint Analytical Louisiana, Inc. received sample(s) on 9/22/2023 for the analyses presented in the following report. The above referenced project has been analyzed per your instructions. Unless otherwise noted, the analyses were performed in our laboratory in accordance with Standard Methods, The Solid Waste Manual SW-846, EPA Methods for Chemical Analysis of Water and Wastes and /or 40 CFR part 136.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance. Analyses reported which indicate "Field" for these parameters were analyzed by the client in the field. Results for solid samples are reported on an as received or "wet weight" basis unless otherwise specified.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2021) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

All quality control measures undertaken in accordance with Waypoint Analytical Louisiana, Inc. CompQAP990807A and revisions under the terms of the Louisiana Environmental Laboratory Accreditation Program (Certificate #02041) are within acceptance ranges established in that document with the exception of the items indicated and/or discussed in a Case Narrative.

The results are shown on the attached analysis sheet(s). Be aware that the time analyzed for certain samples (e.g. - BOD, CBOD, etc.) refer to the time the sample batch was begun and not necessarily to the time an individual sample was begun. Thank you for allowing Waypoint Analytical Louisiana, Inc. to serve you. Should I be of further assistance, if you have any questions or need additional information please contact me or client services.

Sincerely,

Amy Jackson
Project Manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis. This report may be reproduced in full only with the written permission of the laboratory and/or the entity to which it is addressed. Results contained herein relate only to the sample(s) submitted to the laboratory.





5041 Taravella Road, Marrero, LA 70072
Main 504-371-8557 ° Fax 504-371-8560
www.waypointanalytical.com

Certification Summary

Laboratory ID: WP MLA: Waypoint Analytical Louisiana, Inc., Marrero, LA

State	Program	Lab ID	Expiration Date
Georgia	State Program	02041	06/30/2024
Louisiana	State Program - NELAP	02041	06/30/2024

Sample Summary Table

Report Number: 23-265-0027
Client Project Description: 002-302
Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
62751	SB-01	Aqueous	09/21/2023 09:25	09/22/2023
62752	SB-02R	Aqueous	09/21/2023 13:45	09/22/2023
62753	L-1	Aqueous	09/21/2023 14:30	09/22/2023
62754	L-2	Aqueous	09/21/2023 15:05	09/22/2023
62755	BD-01	Aqueous	09/21/2023	09/22/2023
62756	FB-01	Aqueous	09/21/2023 14:15	09/22/2023



Client: Providence Engineering
Project: 002-302
Lab Report Number: 23-265-0027
Date: 9/29/2023

CASE NARRATIVE

Metals Analysis Method 6010D

Sample 62751 (SB-01)

Analyte: Arsenic

QC Batch No: A86188/A86182

The matrix spike and/or the matrix spike duplicate was outside quality control acceptance ranges. A post digestion spike was performed and passed quality control acceptance ranges. No matrix interference is suspected.

00760

Providence Engineering
Emily Welch
1201 Main St.
Baton Rouge , LA 70802

Project 002-302
Information : Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Report Date : 09/29/2023
Received : 09/22/2023

Report Number : **23-265-0027**

REPORT OF ANALYSIS

Lab No : **62751**

Matrix: **Aqueous**

Sample ID : **SB-01**

Sampled: **9/21/2023 9:25**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	690	mg/L	5.00	10	09/28/23 16:01	MJM	EPA-300.0
pH	6.71	s.u.		1	09/22/23 14:55	CRV	4500HB-2011
Arsenic	0.037	mg/L	0.020	2	09/26/23 15:28	APB	6010D
Cadmium	<0.0040	mg/L	0.0040	2	09/26/23 15:28	APB	6010D
Copper	0.135	mg/L	0.0100	2	09/26/23 15:28	APB	6010D
Nickel	0.177	mg/L	0.010	2	09/26/23 15:28	APB	6010D
Vanadium	0.339	mg/L	0.020	2	09/26/23 15:28	APB	6010D
Zinc	0.441	mg/L	0.020	2	09/26/23 15:28	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

00760

Providence Engineering
Emily Welch
1201 Main St.
Baton Rouge , LA 70802

Project 002-302
Information : Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Report Date : 09/29/2023
Received : 09/22/2023

Report Number : **23-265-0027**

REPORT OF ANALYSIS

Lab No : **62752**
Sample ID : **SB-02R**

Matrix: **Aqueous**
Sampled: **9/21/2023 13:45**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	66.9	mg/L	5.00	10	09/27/23 13:27	MJM	EPA-300.0
pH	6.75	s.u.		1	09/22/23 14:55	CRV	4500HB-2011
Arsenic	0.030	mg/L	0.010	1	09/26/23 15:58	APB	6010D
Cadmium	<0.0020	mg/L	0.0020	1	09/26/23 15:58	APB	6010D
Copper	0.0268	mg/L	0.0050	1	09/26/23 15:58	APB	6010D
Nickel	0.033	mg/L	0.005	1	09/26/23 15:58	APB	6010D
Vanadium	0.085	mg/L	0.010	1	09/26/23 15:58	APB	6010D
Zinc	0.081	mg/L	0.010	1	09/26/23 15:58	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit



5041 Taravella Road, Marrero, LA 70072
 Main 504-371-8557 ° Fax 504-371-8560
 www.waypointanalytical.com

00760
 Providence Engineering
 Emily Welch
 1201 Main St.
 Baton Rouge , LA 70802

Project 002-302
 Information : Cleco Brame-Fly Ash Pond
 Lena, Rapides Parish, LA

Report Date : 09/29/2023
 Received : 09/22/2023

Report Number : **23-265-0027**

REPORT OF ANALYSIS

Lab No : **62753**
 Sample ID : **L-1**

Matrix: **Aqueous**
 Sampled: **9/21/2023 14:30**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
pH	6.73	s.u.		1	09/22/23 14:55	CRV	4500HB-2011

**Qualifiers/
 Definitions**

DF Dilution Factor MQL Method Quantitation Limit



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00760
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Project 002-302
 Information : Cleco Brame-Fly Ash Pond
 Lena, Rapides Parish, LA

Report Date : 09/29/2023
 Received : 09/22/2023

Report Number : **23-265-0027**

REPORT OF ANALYSIS

Lab No : **62754**
 Sample ID : **L-2**

Matrix: **Aqueous**
 Sampled: **9/21/2023 15:05**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
pH	6.82	s.u.		1	09/22/23 14:55	CRV	4500HB-2011

**Qualifiers/
 Definitions**

DF Dilution Factor MQL Method Quantitation Limit

00760

Providence Engineering
Emily Welch
1201 Main St.
Baton Rouge , LA 70802

Project 002-302
Information : Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Report Date : 09/29/2023
Received : 09/22/2023

Report Number : **23-265-0027**

REPORT OF ANALYSIS

Lab No : **62755**
Sample ID : **BD-01**

Matrix: **Aqueous**
Sampled: **9/21/2023 0:00**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	66.8	mg/L	5.00	10	09/27/23 13:40	MJM	EPA-300.0
pH	6.71	s.u.		1	09/22/23 14:55	CRV	4500HB-2011
Arsenic	0.027	mg/L	0.010	1	09/26/23 16:03	APB	6010D
Cadmium	<0.0020	mg/L	0.0020	1	09/26/23 16:03	APB	6010D
Copper	0.0245	mg/L	0.0050	1	09/26/23 16:03	APB	6010D
Nickel	0.029	mg/L	0.005	1	09/26/23 16:03	APB	6010D
Vanadium	0.074	mg/L	0.010	1	09/26/23 16:03	APB	6010D
Zinc	0.071	mg/L	0.010	1	09/26/23 16:03	APB	6010D

**Qualifiers/
Definitions**

DF Dilution Factor MQL Method Quantitation Limit

00760

Providence Engineering
Emily Welch
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Baton Rouge , LA 70802

Project 002-302
Information : Cleco Brame-Fly Ash Pond
Lena, Rapides Parish, LA

Report Date : 09/29/2023
Received : 09/22/2023

Report Number : **23-265-0027**

REPORT OF ANALYSIS

Lab No : **62756**

Matrix: **Aqueous**

Sample ID : **FB-01**

Sampled: **9/21/2023 14:15**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	<0.500	mg/L	0.500	1	09/27/23 13:53	MJM	EPA-300.0
pH	6.57	s.u.		1	09/22/23 14:55	CRV	4500HB-2011
Arsenic	<0.010	mg/L	0.010	1	09/26/23 16:07	APB	6010D
Cadmium	<0.0020	mg/L	0.0020	1	09/26/23 16:07	APB	6010D
Copper	<0.0050	mg/L	0.0050	1	09/26/23 16:07	APB	6010D
Nickel	<0.005	mg/L	0.005	1	09/26/23 16:07	APB	6010D
Vanadium	<0.010	mg/L	0.010	1	09/26/23 16:07	APB	6010D
Zinc	<0.010	mg/L	0.010	1	09/26/23 16:07	APB	6010D

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

Quality Control Data

Client ID: Providence Engineering

Project Description: 002-302

Report No: 23-265-0027

QC Analytical Batch: A86146

Analysis Method: 4500HB-2011

Analysis Description: pH

Duplicate A 62751-DUP

Parameter	Units	Result	DUP Result	RPD	Max RPD	Analyzed
pH	s.u.	6.71	6.76	0.7	10.00	09/22/23 14:55

Quality Control Data

Client ID: Providence Engineering
Project Description: 002-302
Report No: 23-265-0027

QC Prep: A86182 **QC Analytical Batch(es):** A86188
QC Prep Batch Method: 3005A **Analysis Method:** 6010D
Analysis Description: Metals Analysis

Lab Reagent Blank LRB-A86182 Matrix: AQU
Associated Lab Samples: 62751, 62752, 62755, 62756

Parameter	Units	Blank Result	MQL	Analyzed
Arsenic	mg/L	<0.010	0.010	09/26/23 15:16
Cadmium	mg/L	<0.0020	0.0020	09/26/23 15:16
Copper	mg/L	<0.0050	0.0050	09/26/23 15:16
Nickel	mg/L	<0.005	0.005	09/26/23 15:16
Vanadium	mg/L	<0.010	0.010	09/26/23 15:16
Zinc	mg/L	<0.010	0.010	09/26/23 15:16

Laboratory Control Sample & LCS LCS-A86182 LCS-D-A86182

Parameter	Units	Spike Conc.	LCS Result	LCS-D Result	LCS %Rec	LCS-D %Rec	% Rec Limits	RPD	Max RPD
Arsenic	mg/L	0.100	0.104	0.103	104	103	80-120	0.9	20
Cadmium	mg/L	0.100	0.110	0.108	110	108	80-120	1.8	20
Copper	mg/L	1.00	0.998	0.989	100	99.0	80-120	0.9	20
Nickel	mg/L	1.00	1.04	1.03	104	103	80-120	0.9	20
Vanadium	mg/L	1.00	1.04	1.03	104	103	80-120	0.9	20
Zinc	mg/L	1.00	1.05	1.03	105	103	80-120	1.9	20

Matrix Spike & Matrix Spike Duplicate A 62751-MS-A86182 A 62751-MSD-A86182

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Arsenic	mg/L	0.037	0.100	0.100	0.143	0.163	106	126*	75-125	13.0	20
Cadmium	mg/L	<0.0040	0.100	0.100	0.0990	0.0959	99.0	96.0	75-125	3.1	20
Copper	mg/L	0.135	1.00	1.00	1.06	1.16	93.0	103	75-125	9.0	20
Nickel	mg/L	0.177	1.00	1.00	1.13	1.35	95.0	117	75-125	17.7	20
Vanadium	mg/L	0.339	1.00	1.00	1.30	1.54	96.0	120	75-125	16.9	20

Quality Control Data

Client ID: Providence Engineering
Project Description: 002-302
Report No: 23-265-0027

QC Prep: A86182 **QC Analytical Batch(es):** A86188
QC Prep Batch Method: 3005A **Analysis Method:** 6010D
Analysis Description: Metals Analysis

Matrix Spike & Matrix Spike Duplicate A 62751-MS-A86182 A 62751-MSD-A86182

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Zinc	mg/L	0.441	1.00	1.00	1.36	1.61	92.0	117	75-125	16.8	20

Quality Control Data

Client ID: Providence Engineering
Project Description: 002-302
Report No: 23-265-0027

QC Prep: A86253 **QC Analytical Batch(es):** A86255
QC Prep Batch Method: EPA-300.0 (PREP) **Analysis Method:** EPA-300.0
Analysis Description: Anions by Ion Chromatography

Lab Reagent Blank LRB-A86253 Matrix: AQU
Associated Lab Samples: 62751, 62752, 62755, 62756

Parameter	Units	Blank Result	MQL	Analyzed
Sulfate	mg/L	< 0.500	0.500	09/28/23 15:22

Laboratory Control Sample LCS-A86253

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Sulfate	mg/L	69.4	71.2	103	90-110

Matrix Spike & Matrix Spike Duplicate A 62751-MS-A86253 A 62751-MSD-A86253

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Sulfate	mg/L	690	69.4	69.4	763	764	105	107	80-120	0.1	20.0

Shipment Receipt Form

Customer Number: **00760**
 Customer Name: **Providence Engineering**
 Report Number: **23-265-0027**

Shipping Method

Fed Ex US Postal Lab Other :
 UPS Client Courier Thermometer ID:

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="1"/>		
Custody seals intact on shipping container/cooler?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)		<input type="checkbox"/> Low concentration EnCore samplers (48 hr)	
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)		<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)	
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:

23-265-0027
00760
09-22-2023
15.53.01



Providence Engineering
002-302

Method c
 Fed Ex
 Courier
 Other

Client Project Manager/Contact
Emily Welch

Project Description
Cleco Brame-Fly Ash Pond

WVW - Wastewater UVW - Groundwater
DW - Drinking Water S - Soil / Solid O - Oil
P - Product M - Misc

Project Manager Email
emilywelch@providenceeng.com

Project Manager Phone #
225-766-7400

Project/Site Location (City/State)
Lena, Rapides Parish, LA

Project Number
002-302

Site/Facility ID #

Purchase Order Number

PH

Sulfate

*Metals

Waypoint ANALYTICAL
5041 Taravella Road
Marrero, LA 70072
(504)-371-8557

Required Analysis / Preservative

Matrix (Refer to Key)

Number of Containers

Sample Identification

Comments/Notes

Required Analysis / Preservative

Matrix (Refer to Key)

Number of Containers

Sample Identification

Client Remarks/Comments

*As, Cd, Cu, Ni, V, Zn

Sampled by (Name - Print)
Andrew Geul

Relinquished by (SIGNATURE)
Relinquished by (SIGNATURE)
Relinquished by (SIGNATURE)

Date Time
9/20/2014

Christina Varuso - [EXTERNAL] RE: [E] Providence Cleco Brame-Fly Ash Pond 09.22.23.pdf

From: "Emily Welch, GIT" <emilywelch@providenceeng.com>
To: Amy Jackson <ajackson@waypointanalytical.com>
Date: 9/22/2023 3:55 PM
Subject: [EXTERNAL] RE: [E] Providence Cleco Brame-Fly Ash Pond 09.22.23.pdf
Cc: Christina Varuso <cvaruso@waypointanalytical.com>, Elizabeth Smith <eliz...

This Message Is From an External Sender

This message came from outside your organization.

Yes ma'am. We're aware pH analyses will be out of hold time.

Thanks,

Emily Welch, GIT

Environmental Scientist II

emilywelch@providenceeng.com

Main: [225-766-7400](tel:225-766-7400) ext. 286

Cell: [601-466-3480](tel:601-466-3480)

Fax: [225-766-7440](tel:225-766-7440)

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<![endif--> <![endif]>



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From: Amy Jackson <ajackson@waypointanalytical.com>
Sent: Friday, September 22, 2023 3:54 PM
To: Emily Welch, GIT <emilywelch@providenceeng.com>
Cc: Christina Varuso <cvaruso@waypointanalytical.com>
Subject: [E] Providence Cleco Brame-Fly Ash Pond 09.22.23.pdf

Emily,

Do we have permission to analyze the samples for pH past the 15 minutes hold time?

Amy Jackson

Project Manager

APPENDIX B
SAMPLING FORMS



PROVIDENCE

FLY ASH POND GROUNDWATER SAMPLE COLLECTION REPORT FORM

Project Name and Number: 002-302 Location: Cleco Brame - Rapides Parish
 Collector: Andrew Creel Boring No. L-1
 Fly Ash Grid:

TEMPORARY WELL INFORMATION

Evacuation: Date/Time: 9-21-23 / 1420 Method of Evacuation: Sub Peristaltic Pump
 Initial Depth to Water Level: 16.67 Top of Casing to Bottom: 37.92
 Gallons per Well Volume: 3.47 Total Gallons Evacuated: 3.5 dry
 Final Depth to Water: 23.34 Elevation Top of Casing:

Sampling: Date/Time: 9-21-23 / 1430 Method of Sampling: Sub Peristaltic Pump
 Depth to Water Level: 23.34
 Sample ID: L-1

FIELD PARAMETERS

	°C	pH	MS	NTU
Replicate #1	Temp. <u>23.6</u>	pH <u>8.91</u>	Conductivity <u>900.1</u>	Turbidity <u>39.3</u>
Replicate #2	Temp. <u>22.7</u>	pH <u>8.69</u>	Conductivity <u>894.6</u>	Turbidity <u>31.9</u>
Replicate #3	Temp. <u>22.9</u>	pH <u>8.54</u>	Conductivity <u>875.3</u>	Turbidity <u>42.3</u>
Field Sample	Temp. <u>22.6</u>	pH <u>8.30</u>	Conductivity <u>891.7</u>	Turbidity <u>48.9</u>

GENERAL INFORMATION

Weather Conditions at Time of Sampling: Sunny 90's
 Sampling Characteristics: Clear
 Containers and Preservatives: PH

Recommendations / Observations: CCR well L-1
 Sampling Personnel: Andrew Creel


 (Signed)

Purged dry



PROVIDENCE

FLY ASH POND GROUNDWATER SAMPLE COLLECTION REPORT FORM

Project Name and Number: 002-302 Location: Cleco Brame – Rapides Parish
 Collector: Andrew Creel Boring No. L-2
 Fly Ash Grid:

TEMPORARY WELL INFORMATION

Evacuation: Date/Time: 9-21-23 Method of Evacuation: Sub
~~Peristaltic Pump~~
 Initial Depth to Water Level 17.12 Top of Casing to Bottom 41.30
 Gallons per Well Volume 3.95 Total Gallons Evacuated 9.0 Dry
 Final Depth to Water 31.40 Elevation Top of Casing

Sampling: Date/Time 9-21-23 Method of Sampling Sub
~~Peristaltic Pump~~
 Depth to Water Level: 31.40
 Sample ID: L-2

FIELD PARAMETERS

	°C	pH	Cond µS	NTU
Replicate #1	Temp. <u>24.7</u>	pH <u>8.67</u>	Conductivity <u>460.7</u>	Turbidity <u>54.4</u>
Replicate #2	Temp. <u>23.8</u>	pH <u>8.11</u>	Conductivity <u>450.1</u>	Turbidity <u>35.8</u>
Replicate #3	Temp. <u>23.6</u>	pH <u>8.10</u>	Conductivity <u>447.3</u>	Turbidity <u>23.7</u>
Field Sample	Temp. <u>23.9</u>	pH <u>8.06</u>	Conductivity <u>440.1</u>	Turbidity <u>14.9</u>

GENERAL INFORMATION

Weather Conditions at Time of Sampling: Sunny 90's
 Sampling Characteristics: clear
 Containers and Preservatives: PH

Recommendations / Observations: CCR Well L-2
 Sampling Personnel: Andrew Creel

 (Signed)



PROVIDENCE

FLY ASH POND GROUNDWATER SAMPLE COLLECTION REPORT FORM

Project Name and Number: 002-302 Location: Cleco Brame - Rapides Parish
 Collector: Andrew Creel Boring No. SB-01
 Fly Ash Grid: 15

TEMPORARY WELL INFORMATION

Evacuation: Date/Time: 9-21-23 / 0825 Method of Evacuation: Peristaltic Pump
 Initial Depth to Water Level: 8.68 Top of Casing to Bottom: 25.09
 Gallons per Well Volume: 0.38 Total Gallons Evacuated: 4.0
 Final Depth to Water: 13.98 Elevation Top of Casing: 52' above bgs

Sampling: Date/Time: 9-21-23 / 0925 Method of Sampling: Peristaltic Pump
 Depth to Water Level: 13.98
 Sample ID: SB-01

FIELD PARAMETERS

	°C	pH	mS	NTU
Replicate #1	Temp. <u>25.5</u>	pH <u>8.41</u>	Conductivity <u>3482</u>	Turbidity <u>902</u> 902
Replicate #2	Temp. <u>26.0</u>	pH <u>7.83</u>	Conductivity <u>3539</u>	Turbidity <u>296</u> 296
Replicate #3	Temp. <u>26.3</u>	pH <u>7.49</u>	Conductivity <u>3397</u>	Turbidity <u>77</u> 77
Field Sample	Temp. <u>26.1</u>	pH <u>7.48</u>	Conductivity <u>3288</u>	Turbidity <u>89</u> 89

GENERAL INFORMATION

Weather Conditions at Time of Sampling: Sunny, 80's
 Sampling Characteristics: _____
 Containers and Preservatives: metals, PH, Sulfate
 Recommendations / Observations: MS-01, MSD-01
 Sampling Personnel: Andrew Creel

(Signed)

*Purged dry @ 0853
 Continue pumping @ 0900
 1.5 gallons*



PROVIDENCE

FLY ASH POND GROUNDWATER SAMPLE COLLECTION REPORT FORM

Project Name and Number: 002-302 Location: Cleco Brame – Rapides Parish
 Collector: Andrew Creel Boring No. SB-02R
 Fly Ash Grid: 12

TEMPORARY WELL INFORMATION

Evacuation: Date/Time: 9-21-23/1305 Method of Evacuation: Peristaltic Pump
 Initial Depth to Water Level 13.84 Top of Casing to Bottom 36.09
 Gallons per Well Volume 6.51 Total Gallons-Evacuated 5.25
 Final Depth to Water 18.23 Elevation Top of Casing 0.4'

Sampling: Date/Time 9-21-23/1345 Method of Sampling Peristaltic Pump
 Depth to Water Level: 18.23
 Sample ID: SB-02R

FIELD PARAMETERS

	°C	pH	µS	NTU
Replicate #1	Temp. <u>25.9</u>	pH <u>7.95</u>	Conductivity <u>2140</u>	Turbidity 879 <u>977</u>
Replicate #2	Temp. <u>25.6</u>	pH <u>8.21</u>	Conductivity <u>2105</u>	Turbidity <u>674</u>
Replicate #3	Temp. <u>27.1</u>	pH <u>8.09</u>	Conductivity <u>2142</u>	Turbidity <u>117</u>
Field Sample	Temp. <u>26.5</u>	pH <u>8.09</u>	Conductivity <u>2149</u>	Turbidity <u>63</u>

GENERAL INFORMATION

Weather Conditions at Time of Sampling: Sunny, 90's
 Sampling Characteristics: clear to tan
 Containers and Preservatives: _____

Recommendations / Observations: _____
 Sampling Personnel: BD-01 sampled
Andrew Creel

(Signed)



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