

**CLECO CAJUN LLC
LOUISIANA GENERATING LLC
BIG CAJUN II POWER PLANT**

**BOTTOM ASH BASIN AND
FLY ASH BASIN
NEW ROADS, LA**

**2021 Annual Groundwater Monitoring Report
for the Coal Combustion Residuals Rule**

January 2022



TABLE OF CONTENTS

<u>Section</u>	<u>Page No.</u>
1.0 INTRODUCTION.....	1
2.0 FACILITY INFORMATION	1
3.0 FIELD ACTIVITIES	1
4.0 GROUNDWATER FLOW EVALUATION	2
5.0 ANALYTICAL RESULTS	2
6.0 DATA EVALUATION.....	2
7.0 CONCLUSIONS AND RECOMMENDATIONS.....	3
8.0 CERTIFICATION	4

Figures

- 1 Site Location Map
- 2 Monitoring Well Location Map
- 3 Potentiometric Surface Map – March 2021
- 4 Potentiometric Surface Map – August 2021

Tables

- 1 Monitoring Well Information
- 2 March 2021 Analytical Data Summary
- 3 August 2021 Analytical Data Summary

EXECUTIVE SUMMARY

- Current groundwater monitoring program status: assessment monitoring.
- Date of initiation of assessment monitoring: September 26, 2018.
- Confirmed exceedances of groundwater protection standards at statistically significant levels for this reporting period: None.

1.0 INTRODUCTION

Louisiana Generating LLC hereby presents the 2021 Annual Groundwater Monitoring report for the Bottom Ash and Fly Ash Basins at the Big Cajun II Power Plant (BC2) located in New Roads, Louisiana (Figure 1). This report summarizes groundwater sampling and analysis activities completed in accordance with applicable portions of the U.S. Environmental Protection Agency (EPA) Coal Combustion Residuals (CCR) Rule.

2.0 FACILITY INFORMATION

Louisiana Generating LLC owns and operates BC2 located at 10431 Cajun II Road, New Roads, Louisiana 70760. The Bottom Ash and Fly Ash Basins in service at the plant have been permitted to operate by the Louisiana Department of Environmental Quality (LDEQ) Waste Permits Division. The materials handled by these facilities are non-hazardous, on-site-generated materials only.

As required by the CCR Rule part §257.90, BC2 has a groundwater monitoring well system to evaluate the groundwater quality conditions near the Bottom Ash and Fly Ash Basins. The monitoring system has been historically used to conduct groundwater monitoring required by BC2's LDEQ approved solid waste permits. A total of twenty monitoring wells have been installed per applicable portions of §257.91. Locations of the monitoring wells can be found on Figure 2, and a table of monitoring well construction details is provided in Table 1.

3.0 FIELD ACTIVITIES

Groundwater sampling events were conducted by approved contract personnel in accordance with applicable portions of §257.93. Semi-annual assessment monitoring sampling events were conducted in March and August of 2021.

The depth-to-water below the top of each well casing was measured and recorded prior to purging and sampling each well during each sampling event. Water levels were measured to the nearest 0.01 foot from the top of casing using an electronic water level indicator. Total depth of each well was also measured to confirm that the screened interval was open to groundwater flow. Water level measurements were recorded in groundwater sampling forms. The water level measurements were subtracted from the top of casing elevations to obtain the groundwater elevations.

Groundwater purging and sampling activities were conducted using electric suction lift pumps or electric submersible pumps. These activities were conducted in accordance with applicable portions of Sections 6.1, 6.2, 6.3, 6.5 through 6.8, and 8.1.3 and 8.1.4 of the *Standard Guide for Sampling Groundwater Monitoring Wells* (ASTM International, Publication D4448). Groundwater samples were collected by filling the sample containers directly from the tubing connected to the pump or from a disposable bailer. Care was taken to minimize agitation of the samples. Samples were placed in laboratory-provided containers with appropriate preservatives, per Section 9 of ASTM D4448.

Samples were properly preserved on ice in the field and shipped to Pace Analytical Services, LLC in St. Rose, Louisiana. Samples were analyzed for the CCR groundwater monitoring parameters by the following methods: chloride by 300.0 and 4500; sulfate by 300.0 and D516; fluoride by 300.0; total dissolved solids by 2540C; metals by 6010, 6020 and 7470; and radium by 903.1 and 904.0.

Full chain-of-custody protocols were observed during sample collection, transportation, and analysis. Sample shipment/transport procedures were conducted per Sections 9.9 through 9.11 of ASTM D4448.

It is noted that the August 2021 sampling event was completed shortly before Hurricane Ida made landfall in south Louisiana. This natural disaster impacted the Pace St. Rose facility. Due to a lack of power and water at the St. Rose facility, samples had to be shipped to Pace locations in other states, resulting in missed holding times for certain analytical methods. Quality assurance/quality control data indicates that the analyses have generated useable results for the purpose of this report.

4.0 GROUNDWATER FLOW EVALUATION

Horizontal groundwater flow was evaluated in the uppermost water bearing zone by construction of potentiometric surface maps (Figures 3 and 4) from data measured in monitoring wells at BC2. An evaluation of groundwater flow indicates that, similar to previous monitoring, the groundwater flow direction varied but was predominantly away from the Mississippi River (east to west) with localized variability in the area of the Bottom Ash Basin and eastern portion of the Fly Ash Basin.

Groundwater flow rate was evaluated using the groundwater flow equation, $v = [k (dh/dl)] / n_e$. For this equation, v is groundwater flow velocity in ft/day, k is hydraulic conductivity in ft/day, dh/dl is hydraulic gradient in ft/ft, and n_e is effective porosity (unitless).

Hydraulic conductivity (k) value ranging from 10 to 100 ft/day was assumed (Heath, 1989) based on the silty sand and fine- to coarse-grained sand observed in soil cuttings from soil borings completed at the site. Hydraulic gradient (dh/dl) value estimates from potentiometric surface maps representing each sampling event for the Ash Basins areas are summarized below. An effective porosity (n_e) of 0.2 was assumed based on the soil types of the uppermost water bearing zone (Fetter, 2001). Using these values, the groundwater flow rates (v) are listed below.

Date	Hydraulic Gradient (feet/feet)	Estimated Groundwater Flow Velocity (feet/day)
March 2021	0.0003 to 0.005	0.015 to 2.5
August 2021	0.001 to 0.006	0.05 to 3

It is important to note that this is an advective rate and does not take into account potential hydrogeological heterogeneities such as adsorption, biodegradation, dispersion, or other retarding factors in the groundwater flow in this zone. Additionally, variations in the advective flow may occur due to potential lateral geological heterogeneities.

5.0 ANALYTICAL RESULTS

Groundwater samples collected at BC2 were analyzed for the CCR Rule groundwater monitoring parameters using appropriate EPA approved analytical methods. Results show frequent detections of numerous parameters in both up- and downgradient monitoring wells at BC2. Analytical results are compared to Groundwater Protection Standards (GWPS). Analytical results are provided in Tables 2 and 3.

6.0 DATA EVALUATION

Statistical evaluations of groundwater data have been performed per applicable portions of §257.93.f. When assessment monitoring is initiated because of confirmed statistically significant increases (SSIs) observed during the detection monitoring program, detected Appendix IV parameters are compared to Groundwater Protection Standards (GWPS) through the use of confidence intervals. The GWPS are either the maximum contaminant level (MCL) or a statistical limit based on background, whichever is

higher (§257.95.h). CCR Rule specified levels are used for parameters without MCLs (unless background is higher) which include: cobalt, lithium and molybdenum. Alternate contaminant levels (ACLs) will be established from upgradient wells through the use of tolerance limits. For this monitoring period, arsenic and beryllium have GWPS based on background [0.096 milligrams per liter (mg/l) and 0.0041 mg/l, respectively].

On an annual basis, all Appendix IV parameters are sampled (§257.95.b) and the detected parameters are added to the list of parameters sampled in the second semi-annual event (§257.95.d).

Confidence intervals have been calculated to evaluate data for parameters which have been detected above the GWPS in at least one discrete sample collected from a downgradient/compliance well during the baseline or assessment monitoring program events. Confidence intervals require a minimum of four samples; however, eight samples are recommended.

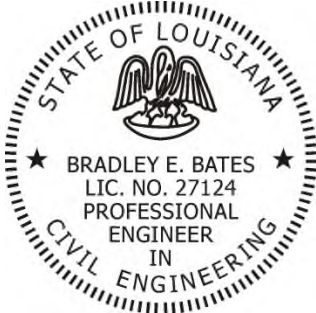
In assessment monitoring, a well is determined to be out of compliance when the lower confidence limit (LCL), or the entire interval, exceeds the GWPS. Evaluation of the 2021 groundwater monitoring data at BC2 indicate that no Appendix IV parameters are present at statistically significant levels (SSLs) above the parameters' GWPS.

7.0 CONCLUSIONS AND RECOMMENDATIONS

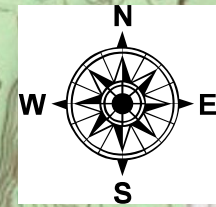
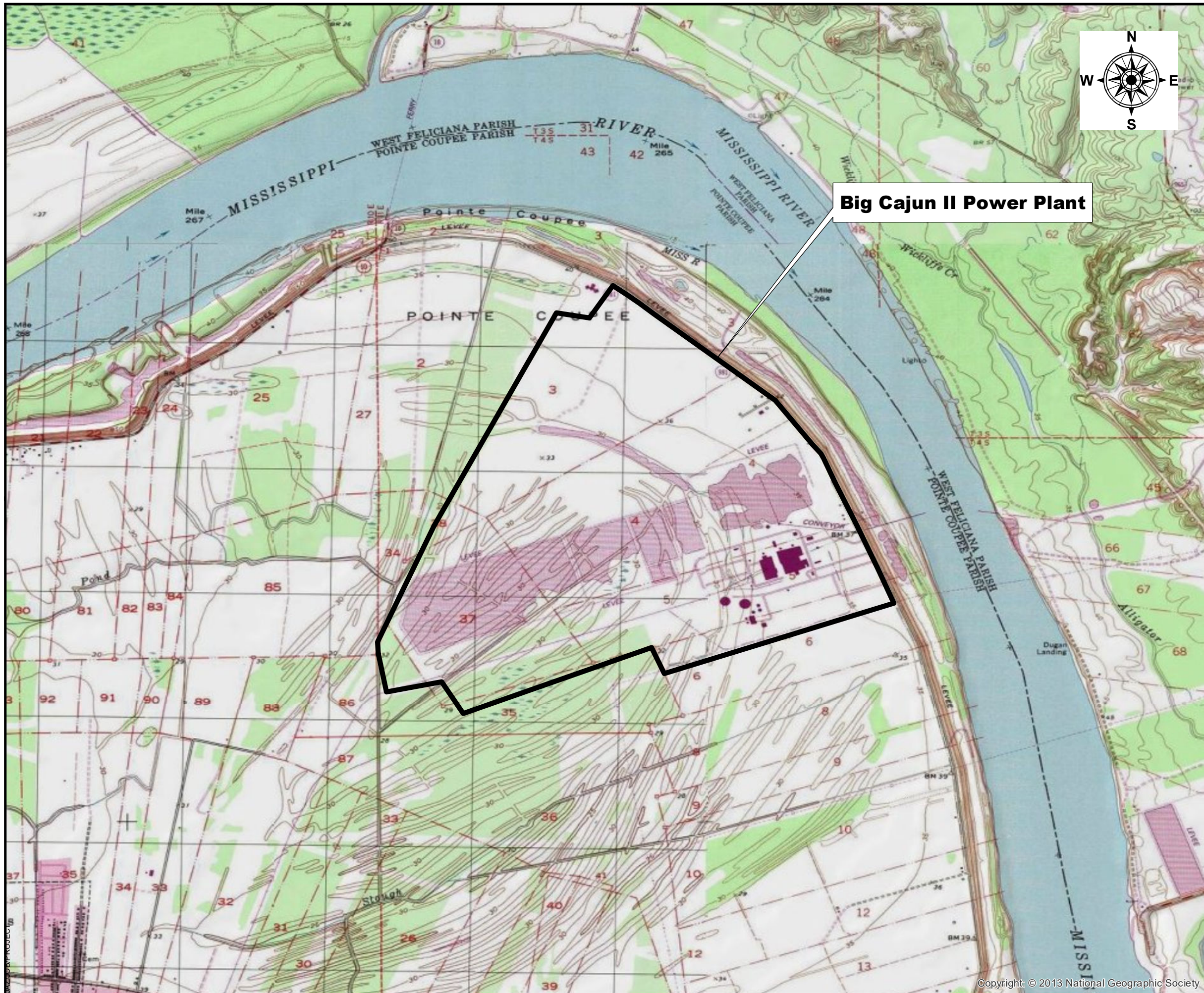
- BC2 has a monitoring well system to monitor groundwater quality at the Bottom Ash and Fly Ash Basins per applicable portions of §257.91. The network consists of six upgradient and fourteen downgradient monitoring wells.
- Five background wells (MW-19BG1 through MW-19BG5) were installed in September 2019. After collection of sufficient data to establish baseline conditions in these wells, data from the new background wells has been included in the statistical evaluation data set.
- BC2 conducted sufficient groundwater monitoring sampling events, per applicable portions of §257.93 and §257.95.
- Potentiometric surface evaluation at BC2 indicates variable groundwater flow patterns due to the site's close proximity to the Mississippi River.
- Statistical evaluations of groundwater data conducted per applicable portions of §257.93 indicate that no Appendix IV parameters are present at SSLs above the parameters' GWPS.
- Semi-annual assessment monitoring sampling events are tentatively scheduled for March and September of 2022. Data generated during these sampling events will be included in the next annual report.

8.0 CERTIFICATION

I hereby certify this annual groundwater monitoring report for the Louisiana Generating LLC Big Cajun II Power Plant. I am a duly licensed Professional Engineer under the laws of the State of Louisiana.




_____ Signature	27124 _____ PE Registration Number
<i>Bradley E. Bates</i> _____ Name	<i>Professional Engineer</i> _____ Title
<i>Eagle Environmental Services, Inc.</i> _____ Company	<i>11/18/2021</i> _____ Date



Big Cajun II Power Plant

Legend

 Approximate Property Boundary



CLECO Cajun, LLC

Big Cajun II Power Plant

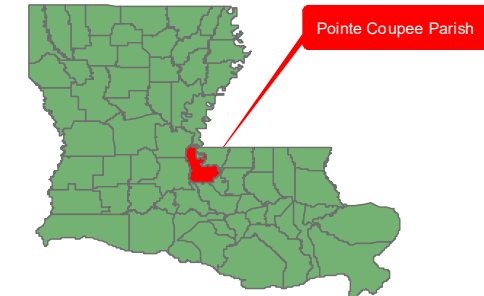
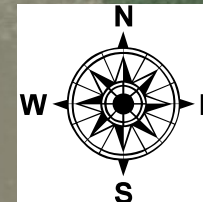
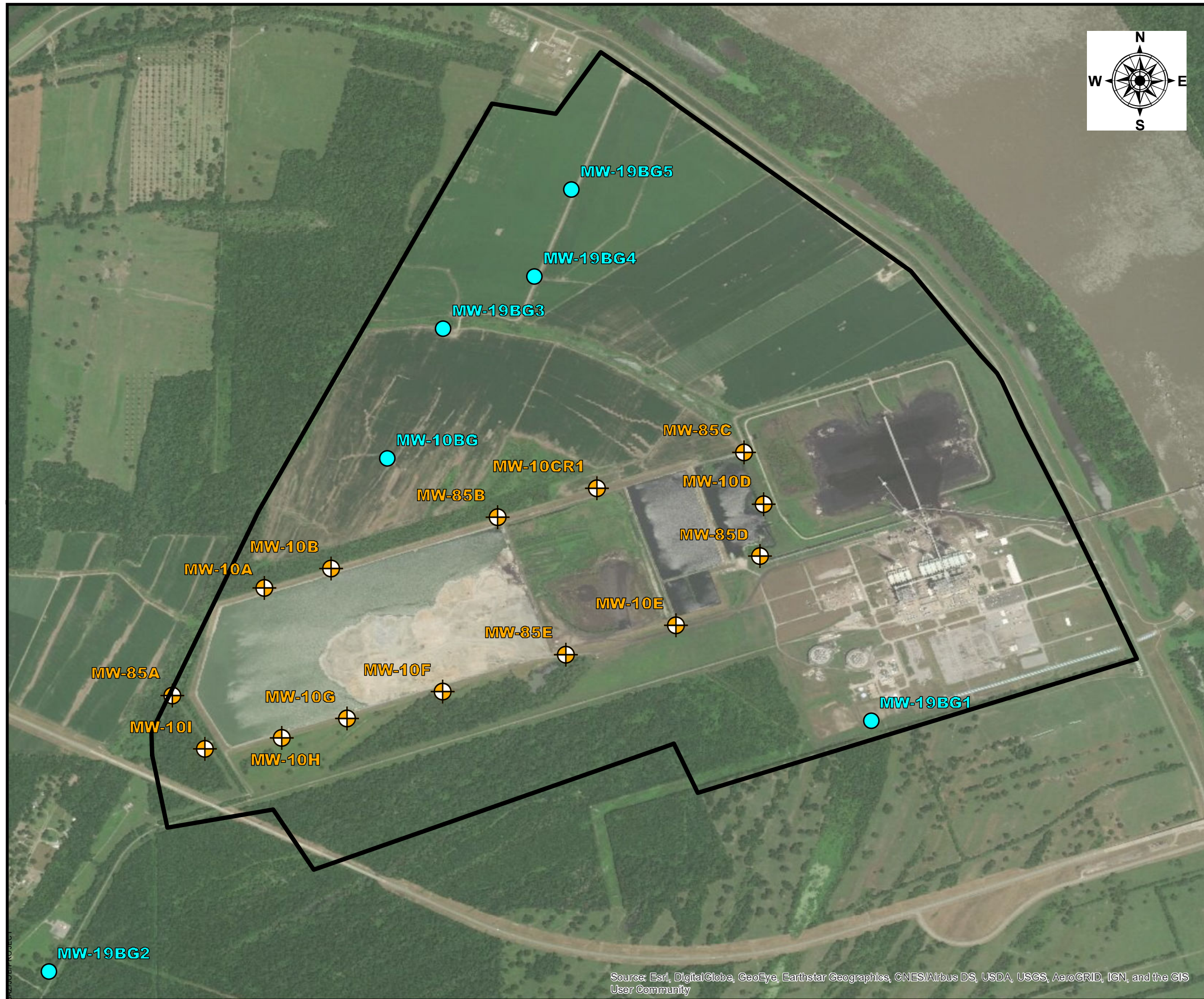
Site Location Map

Pointe Coupee Parish



Drawn:	JP
Checked:	JM
Approved:	RS
Date:	7/11/19
Dwg. No.:	367-19-0001-A001

Figure 1



Legend

- Background Well Locations
- ⊕ Compliance Well Locations
- Approximate Property Boundary



CLECO Cajun, LLC

Big Cajun II Power Plant

Monitoring Well Location Map

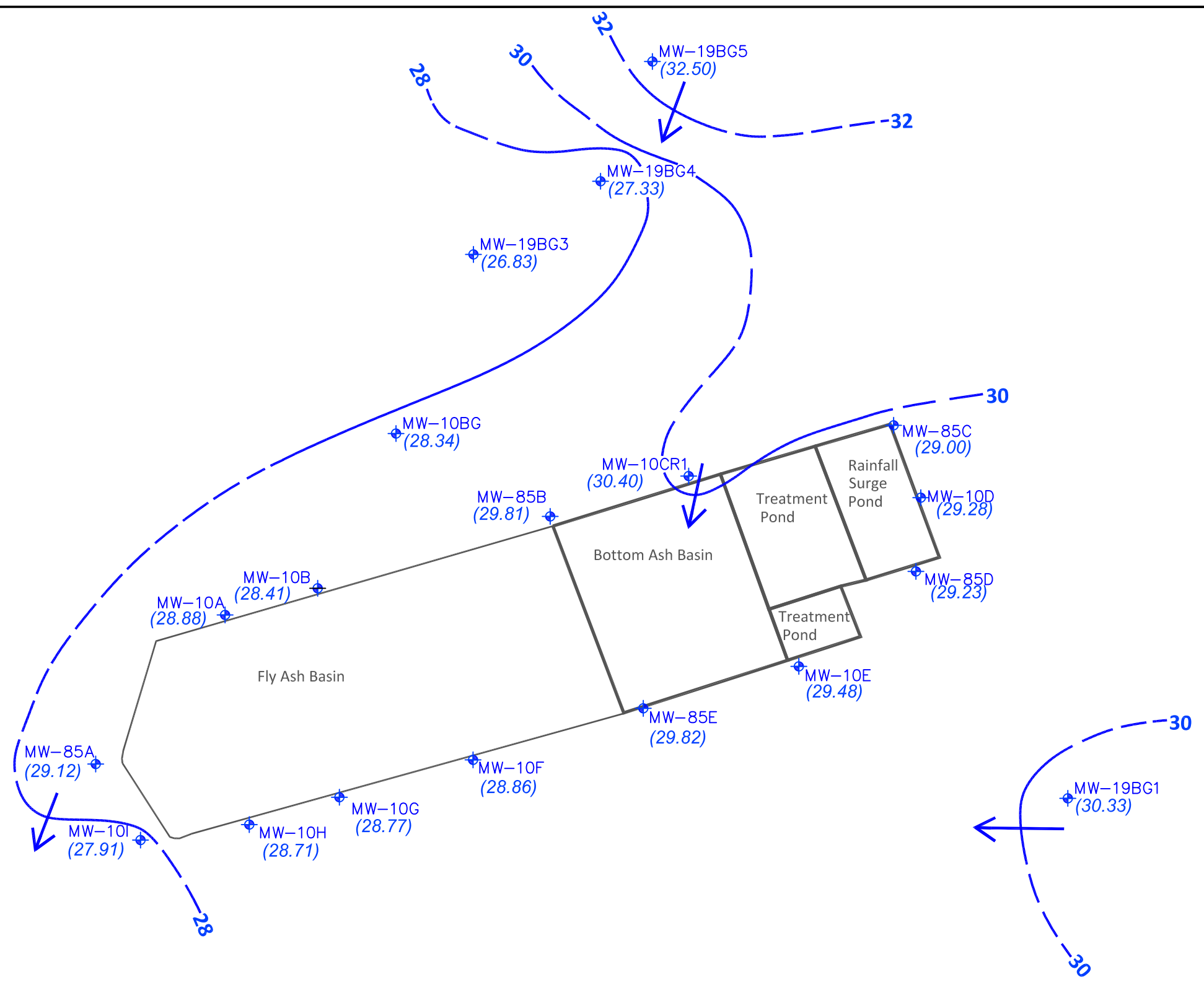
Pointe Coupee Parish






Drawn:	JP
Checked:	JM
Approved:	JM
Date:	4/16/20
Dwg. No.:	367-20-0003-A001-CCR

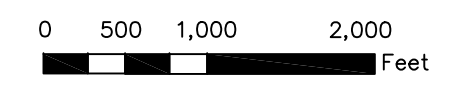
Figure 2

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

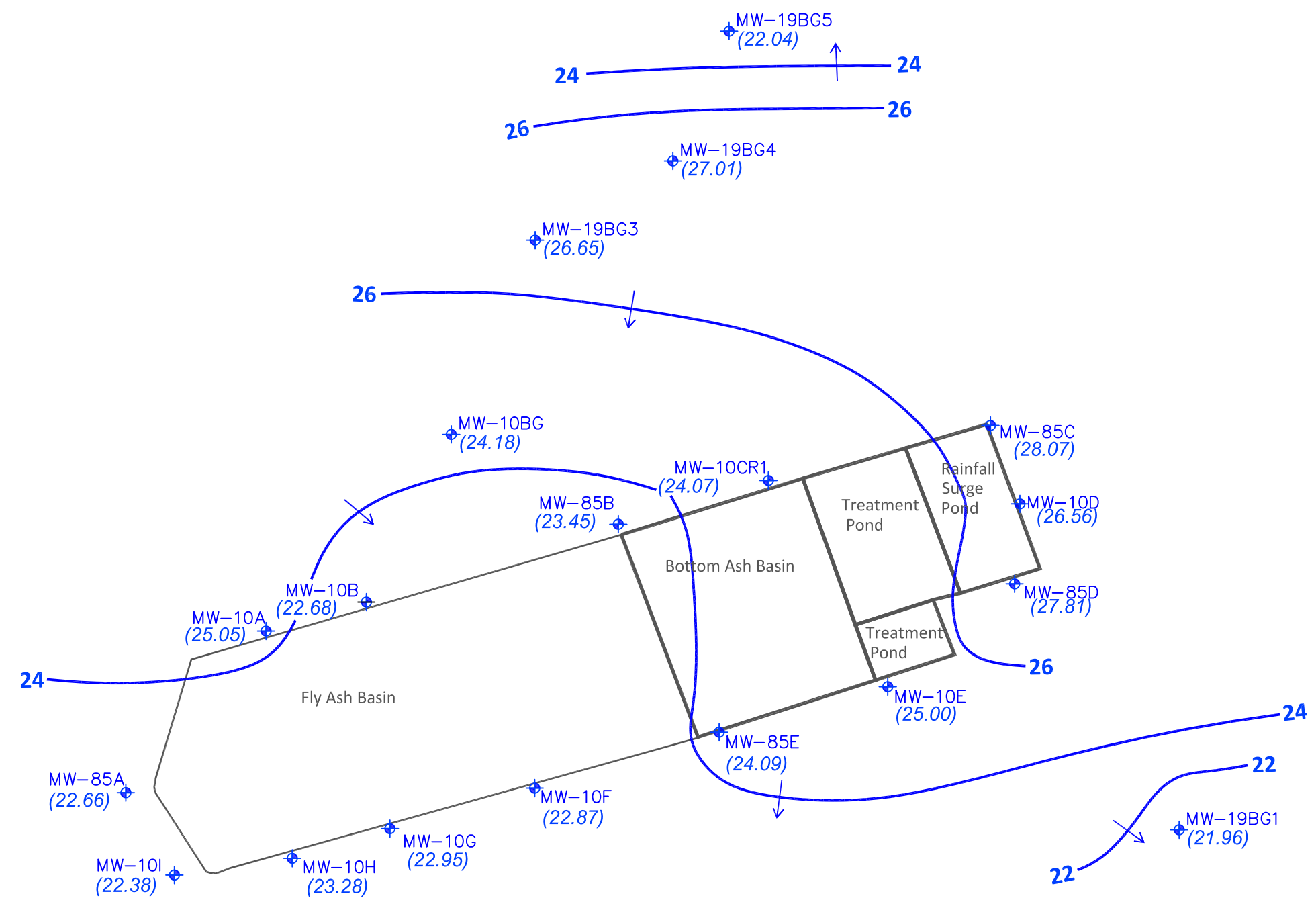


Legend

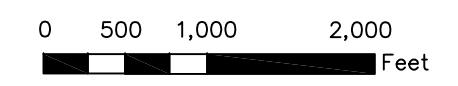
-  Monitoring Well
-  Measured Potentiometric Elevation (ft. NGVD)
-  Potentiometric Surface Elevation (ft. NGVD)



 Big Cajun II Power Plant	
Potentiometric Surface Map March 2021	
Pointe Coupee Parish	
 E·A·G·L·E ENVIRONMENTAL SERVICES, INC.	Drawn: JP
	Checked: JM
	Approved: JM
	Date: 03/23/21
	Dwg. No.: 367-21-0003-A002-CCR
Figure 3	



- Legend**
- Monitoring Well
 - Measured Potentiometric Elevation (ft. NGVD)
 - Potentiometric Surface Elevation (ft. NGVD)



Big Cajun II Power Plant	
Potentiometric Surface Map	
August 2021	
Pointe Coupee Parish	
	Drawn: JP
	Checked: JM
	Approved: JM
	Date: 09/9/21
	Dwg. No.: 367-21-0003-B002-CCR
Figure 4	

TABLE 1

Monitoring Well Information

Well ID	Latitude (DMS)	Longitude (DMS)	Installation Date	Zone Monitored	Gradient	Top of Casing Elevation (ft NGVD)	Ground Surface Elevation (ft NGVD)	Top of Screen Elevation (ft NGVD)	Bottom of Screen Elevation (ft NGVD)	Well Depth (ft bgs)	Well Diameter (in)
MW-85A	30°43'44"	91°23'50"	Jun 1985	Uppermost	Down	34.82	33.17	-1.58	-21.58	55.75	2
MW-85B	30°43'47"	91°22'37"	Jun 1985	Uppermost	Down	32.25	30.60	21.55	1.15	30.45	2
MW-85C	30°43'57"	91°22'37"	Jun 1985	Uppermost	Down	35.05	33.46	15.61	-4.74	39.20	2
MW-85D	30°43'44"	91°22'25"	Jun 1985	Uppermost	Down	35.71	34.20	16.20	-3.80	39.00	2
MW-85E	30°43'30"	91°23'01"	Jun 1985	Uppermost	Down	33.52	32.07	22.97	2.67	30.40	2
MW-10A	30°43'37"	91°23'40"	Jun 2011	Uppermost	Down	32.97	29.89	10.57	0.57	29.57	2
MW-10B	30°43'39"	91°23'31"	Jun 2011	Uppermost	Down	31.13	27.86	7.98	-2.02	30.13	2
MW-10CR1	30°43'50"	91°22'55"	Oct 2016	Uppermost	Down	35.48	32.43	12.95	2.95	29.73	2
MW-10D	30°43'48"	91°22'32"	Jun 2011	Uppermost	Down	33.18	30.22	9.83	-0.17	30.64	2
MW-10E	30°43'23"	91°23'15"	May 2011	Uppermost	Down	33.54	30.42	9.94	-0.06	30.74	2
MW-10F	30°43'32"	91°22'44"	May 2011	Uppermost	Down	31.27	28.97	2.92	-7.08	36.30	2
MW-10G	30°43'19"	91°23'28"	Jun 2011	Uppermost	Down	32.17	29.30	0.42	-9.58	39.13	2
MW-10H	30°43'17"	91°23'37"	Jun 2011	Uppermost	Down	32.01	29.21	-9.74	-19.74	49.20	2
MW-10I	30°43'15"	91°23'48"	Jun 2011	Uppermost	Down	33.12	30.06	0.31	-9.69	40.00	2
MW-10BG	30°43'55"	91°23'23"	Jun 2011	Uppermost	Up	33.74	30.79	10.39	0.39	30.65	2
MW-19BG1	30°43'19"	91°22'17"	Sep 2019	Uppermost	Up	38.15	34.54	7.04	-2.96	42.54	2
MW-19BG2	30°42'45"	91°24'09"	Sep 2019	Uppermost	Up	31.99	28.88	0.18	-9.82	39.24	2
MW-19BG3	30°44'12"	91°23'15"	Sep 2019	Uppermost	Up	34.57	31.65	2.95	-7.05	39.21	2
MW-19BG4	30°44'20"	91°23'03"	Sep 2019	Uppermost	Up	33.62	30.61	10.91	0.91	30.23	2
MW-19BG5	30°44'31"	91°22'58"	Sep 2019	Uppermost	Up	37.60	34.23	5.05	-4.95	39.68	2

Notes:

DMS = Degrees Minutes Seconds
NGVS = National Geodetic Vertical Datum
BGS = Below Ground Surface

TABLE 2

March 2021 Analytical Data Summary

Parameter/Well	MW-85A	MW-85B	MW-85C	MW-85D	MW-85E	MW-10A	MW-10B	MW-10CR1	MW-10D	MW-10E	MW-10F
	3/9/21	3/10/21	3/10/21	3/10/21	3/9/21	3/10/21	3/10/21	3/10/21	3/10/21	3/9/21	3/9/21
Boron (mg/l)	0.075	0.057	0.21	0.14	9	0.71	0.6	0.37	0.2	0.22	10.5
Calcium (mg/l)	70.9	101	131	121	152	121	91.7	144	144	127	400
Chloride (mg/l)	13.5	43.7	58.9	19.9	74.8	76.1	74.9	72.3	67.7	45.9	32.5
pH (S.U.)	5.86	6.67	6.65	6.61	6.41	6.67	6.13	6.7	6.75	6.37	6.18
Sulfate (mg/l)	<1	158	240	95.5	746	292	81.5	307	308	177	1,820
TDS (mg/l)	350	615	810	655	1,440	795	635	920	935	775	2,840
Antimony (mg/l)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Arsenic (mg/l)	0.0019	0.0015	0.0054	0.0038	0.0095	0.0031	0.008	0.0049	0.0044	0.011	0.0099
Barium (mg/l)	0.31	0.5	0.3	0.26	0.063	0.27	0.5	0.43	0.21	0.37	0.039
Beryllium (mg/l)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium (mg/l)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium (mg/l)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0016	<0.001	<0.001	<0.001	<0.001
Cobalt (mg/l)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0018	0.0017	<0.001	<0.001	0.0053
Fluoride (mg/l)	0.279	<0.2	0.217	0.215	<1	0.402	<0.2	<0.400	<0.400	<0.2	<2
Lead (mg/l)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0012	<0.001	<0.001	<0.001	<0.001
Lithium (mg/l)	0.015	0.015	0.012	0.016	0.015	0.011	0.013	0.017	0.013	0.017	0.031
Mercury (mg/l)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum (mg/l)	<0.003	<0.003	<0.003	<0.003	0.06	<0.003	<0.003	0.0041	<0.003	<0.003	<0.003
Selenium (mg/l)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Thallium (mg/l)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Combined Radium-226,228 (pCi/l)	0.678	1.05	1.21	0.583	0.643	0.761	0.893	1.33	0.757	0.827	0.994

Notes:

mg/l = milligrams per liter
S.U. = standard units
pCi/l = picocuries per liter

TABLE 2

March 2021 Analytical Data Summary

Parameter/Well	MW-10G	MW-10H	MW-10I	MW-10BG	MW-19BG1	MW-19BG2	MW-19BG3	MW-19BG4	MW-19BG5
	3/9/21	3/9/21	3/9/21	3/11/21	3/9/21	3/9/21	3/9/21	3/9/21	3/9/21
Boron (mg/l)	0.86	0.14	0.12	0.072	0.07	0.094	0.12	0.17	0.073
Calcium (mg/l)	102	144	96.2	79.3	86.1	106	80.4	102	93
Chloride (mg/l)	72.4	52.4	22.9	5.2	15.7	6.6	6.4	9.9	4.2
pH (S.U.)	6.5	6.58	6.42	6.82	7.13	7.47	7.55	7.27	7.62
Sulfate (mg/l)	132	24.1	7.6	<1	20	<1	38.3	<1	<1
TDS (mg/l)	610	590	410	335	390	425	390	420	375
Antimony (mg/l)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Arsenic (mg/l)	0.0016	0.0074	<0.001	0.065	<0.001	0.0068	0.029	0.04	0.013
Barium (mg/l)	0.4	0.48	0.34	0.36	0.32	0.37	0.29	0.24	0.22
Beryllium (mg/l)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0041	<0.001	<0.001
Cadmium (mg/l)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium (mg/l)	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	0.0024	0.001	<0.001
Cobalt (mg/l)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0015	<0.001	<0.001
Fluoride (mg/l)	<0.2	<0.2	<0.2	0.28	0.21	<0.2	0.259	<0.2	<0.2
Lead (mg/l)	<0.001	<0.001	<0.001	<0.001	<0.001	0.0012	0.0015	<0.001	<0.001
Lithium (mg/l)	0.018	0.018	0.021	0.01	0.0083	0.011	0.0092	0.0082	0.0061
Mercury (mg/l)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum (mg/l)	<0.003	<0.003	<0.003	0.0033	<0.003	<0.003	0.0056	<0.003	<0.003
Selenium (mg/l)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Thallium (mg/l)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Combined Radium-226,228 (pCi/l)	0.715	1.4	0.648	0.395	1.87	0.572	1.15	0.842	1.15

Notes:

mg/l = milligrams per liter
S.U. = standard units
pCi/l = picocuries per liter

TABLE 3

August 2021 Analytical Data Summary

Parameter/Well	MW-85A	MW-85B	MW-85C	MW-85D	MW-85E	MW-10A	MW-10B	MW-10CR1	MW-10D	MW-10E	MW-10F
	8/25/21	8/26/21	8/26/21	8/27/21	8/26/21	8/26/21	8/26/21	8/26/21	8/27/21	8/26/21	8/26/21
Boron (mg/l)	<0.1	<0.1	0.263	0.176	6.6	0.642	0.576	0.311	0.189	0.216	8.12
Calcium (mg/l)	73.8	102	141	135	141	123	92.5	135	144	132	368
Chloride (mg/l)	13.5	46.4	71.4	32.6	70.8	78.8	93	81	75.9	48	32.2
pH (S.U.)	7.85	8.04	8.01	7.9	7.64	7.85	7.42	8.17	8.14	7.89	7.48
Sulfate (mg/l)	<1	180	338	190	657	323	148	372	336	228	3180
TDS (mg/l)	343	639	765	724	1370	848	622	826	855	729	2490
Arsenic (mg/l)	0.002	0.0016	0.0083	0.0049	0.0091	0.0046	0.0083	0.0043	0.0035	0.0108	0.012
Barium (mg/l)	0.335	0.6	0.369	0.251	0.0586	0.274	0.463	0.363	0.207	0.362	0.0589
Beryllium (mg/l)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Chromium (mg/l)	<0.001	<0.001	0.0042	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cobalt (mg/l)	<0.001	<0.001	0.0038	<0.001	<0.001	<0.001	<0.001	0.0017	<0.001	<0.001	0.0039
Fluoride (mg/l)	0.44	0.25	<0.2	<0.2	0.24	0.24	<0.2	<0.2	<0.2	<0.2	<0.2
Lead (mg/l)	<0.001	<0.001	0.0036	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Lithium (mg/l)	0.0142	0.017	0.0187	0.0155	0.0155	0.0107	0.0129	0.0175	0.014	0.0169	0.0366
Molybdenum (mg/l)	0.0012	<0.001	0.0014	0.0012	0.0718	0.0019	<0.001	0.0039	0.0011	<0.001	<0.001
Combined Radium-226,228 (pCi/l)	1.13	1.46	2.08	0.901	1.25	1.17	0.599	1.74	0.824	1.2	1.29

Notes:

mg/l = milligrams per liter
S.U. = standard units
pCi/l = picocuries per liter

TABLE 3

August 2021 Analytical Data Summary

Parameter/Well	MW-10G	MW-10H	MW-10I	MW-10BG	MW-19BG1	MW-19BG2	MW-19BG3	MW-19BG4	MW-19BG5
	8/25/21	8/25/21	8/25/21	8/27/21	8/24/21	8/24/21	8/24/21	8/24/21	8/24/21
Boron (mg/l)	0.764	0.122	0.107	<0.1	0.069	0.087	0.19	0.22	0.072
Calcium (mg/l)	95.3	137	91.9	76	80.5	97.9	88.3	111	84
Chloride (mg/l)	72.5	48.3	22.5	4.5	18	7.7	7.4	12.7	5.1
pH (S.U.)	7.86	7.9	7.91	8.33	7.24	7.74	7.59	7.73	7.72
Sulfate (mg/l)	128	19.2	1.4	<1	4.3	<1	<1	<1	<1
TDS (mg/l)	639	624	447	374	290	385	405	430	310
Arsenic (mg/l)	0.0017	0.0085	<0.001	0.0467	0.0016	0.0056	0.067	0.12	0.021
Barium (mg/l)	0.387	0.477	0.347	0.246	0.29	0.32	0.34	0.32	0.22
Beryllium (mg/l)	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium (mg/l)	<0.001	<0.001	<0.001	<0.001	0.0014	0.0012	0.0012	<0.001	<0.001
Cobalt (mg/l)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Fluoride (mg/l)	<0.2	<0.2	0.24	0.44	0.29	0.31	<0.2	<0.2	0.26
Lead (mg/l)	<0.001	<0.001	<0.001	<0.001	0.0011	0.0032	<0.001	<0.001	<0.001
Lithium (mg/l)	0.0176	0.0173	0.0222	0.011	0.0095	0.011	0.0088	0.009	0.0065
Molybdenum (mg/l)	<0.001	<0.001	<0.001	0.0032	<0.003	<0.003	<0.003	<0.003	<0.003
Combined Radium-226,228 (pCi/l)	0.671	1.59	0.483	0.793	1.36	1.3	1.16	1.38	1.63

Notes:
mg/l = milligrams per liter
S.U. = standard units
pCi/l = picocuries per liter