Effluent Quality Assessment of Mosaic Fertilizer, LLC—Bartow Chemical Plant Polk County NPDES # FL0001589 Sampled April 22, 2024

Division of Environmental Assessment and Restoration
Florida Department of Environmental Protection
August 2024

DEP Laboratory, Biology Program
2600 Blair Stone Road, MS 6515
Tallahassee, FL 32399-2400
www.floridadep.gov

Contents

Summary of Results 3
Facility Overview 3
Methods 3
Results 6
Literature Cited 7
Appendix A. Facility Summary 12
Appendix B. Explanations of Measurements 27
Appendix C. Chain of Custody 28
Appendix D. Chemical Analysis of Effluent 29

List of Tables

Table 1. Measured field parameters 8
Table 2. Analytical water chemistry, microbiological, and toxicological data 9
Table 3. Analytical metals data 10
Table 4. Detected Organic Constituents 11

List of Figures

Figure 1. Map of Facility and Discharge Locations 5

Summary of Results

Iron and selenium, measured in at least one effluent grab sample, exceeded the Class III Water Quality Criteria for Fresh Waters and effluent permit limits. There were two organic constituents detected in the effluent grab sample.

Facility Overview

The Mosaic Fertilizer, LLC—Bartow Chemical Plant is a phosphate chemical fertilizer manufacturing facility. A Facility Summary, including a description of the facility, summary of permit limits, and any relevant Administrative Order (AO), Consent Order (CO), and Discharge Monitoring Report (DMR) information is provided in Appendix A. The facility is operating under Consent Orders OGC File No. 90-1541, executed on June 5, 1991 for the monitoring of remnant plume after installation of slurry walls around north, eastern, and southern boundaries of stack; and OGC File No. 12-1207, executed on August 27, 2012 for removal of water from CJ North using a Spray Evaporation System (SES), which is in the process of being closed. The effluent is continuously discharged into an unnamed ditch that flows into a segment of Cedar Branch, a Class III Fresh Water [waterbody identification (WBID) 1646A], thence to Six Mile Creek, a Class III Fresh Water (WBID 1644), eventually entering Peace River, a Class III Fresh Water (WBID 1623J) (Figure 1).

Cedar Branch falls within the West Central Nutrient Watershed Region for Numeric Nutrient Criteria (NNC). For this region, the NNC, expressed as annual geometric means, are 0.49 mg/L total phosphorus and 1.65 mg/L total nitrogen (Paragraph 62-302.531(2)(c), F.A.C.). Cedar Branch falls within the Peninsula bioregion; the daily average dissolved oxygen (DO) saturation shall not be below 38 percent in more than 10 percent of the values (Paragraph 62-302.533(1)(a), F.A.C.). This FYI event only provides single sample results. It should be noted that waterbody impairment assessments are based on longer-term data, and individual exceedances of a criterion do not indicate use impairment. http://ca.dep.state.fl.us/mapdirect/?focus=nutrientcriteria

Methods

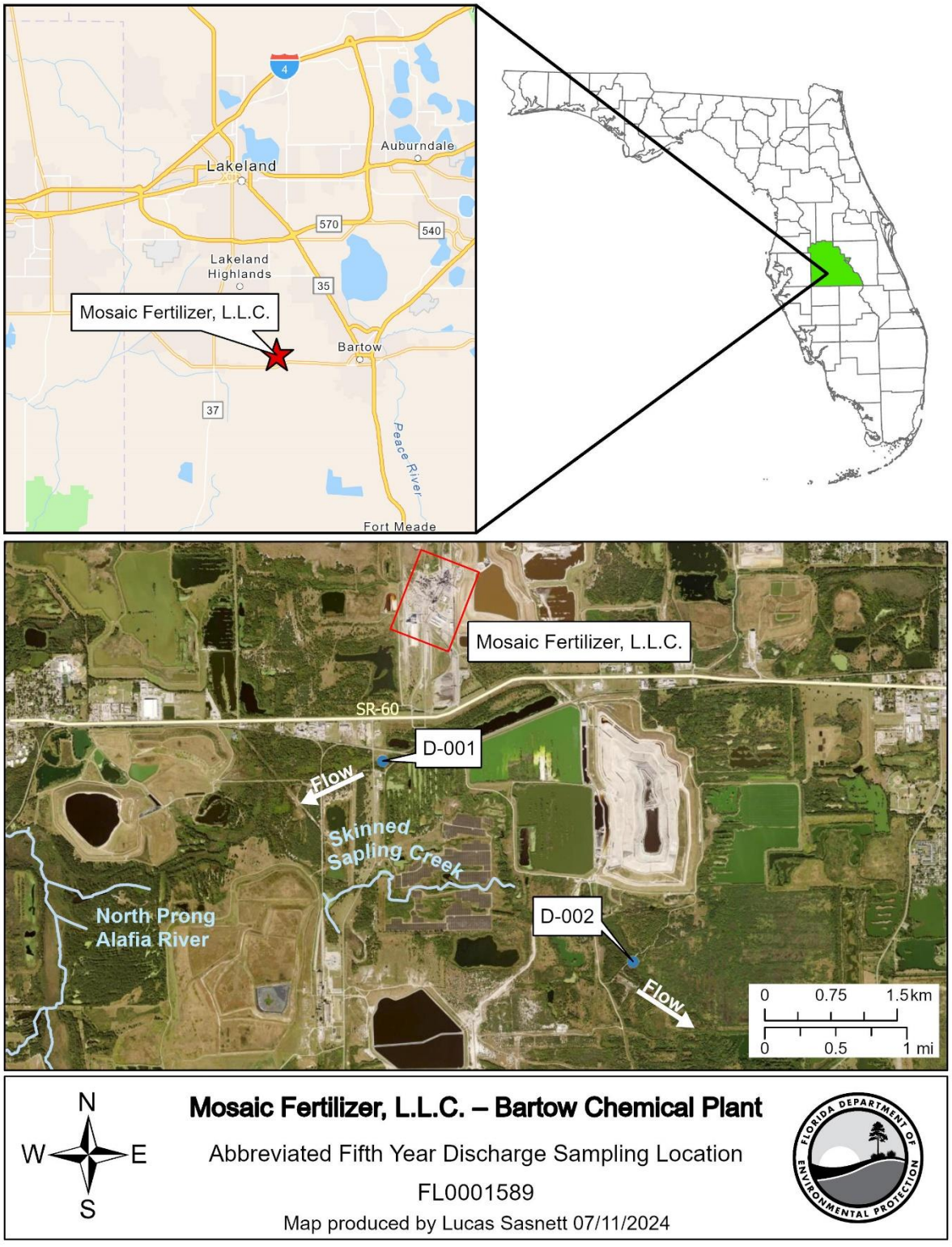
Effluent grab samples were collected from monitoring site location EFF-002, for outfall D-002 on April 22, 2024. The sampler noted on the chain of custody (Appendix C) that effluent grab samples were collected in the field blank bottles instead of DI water. Two sets of effluent grab samples were analyzed; results from one set are reported in the tables below and all results are in Appendix D. No field blank samples were collected or analyzed. There are permits limit for mercury, alpha activity, Radium 226 + 228, and toxicity bioassays; these analyses were not scheduled or performed.

Samples were collected by Evelyn Sardinas (DWRM). Analyses were performed by Eurofins Pensacola and the DEP Laboratory in Tallahassee.

All field and laboratory methods followed DEP Standard Operating Procedures (see https://floridadep.gov/dear/quality-assurance/content/dep-sops and https://floridadep.gov/dear/florida-dep-laboratory/content/dep-laboratory-quality-assurance-manual-and-sops for details) and met DEP quality assurance/quality control standards (see https://floridadep.gov/dear/quality-assurance). Explanations of specific methods and measurements can be found in Appendix B.

Class III Water Quality Criteria for Fresh and Marine Waters are found in Chapter 62-302, F.A.C. All references to Rule 62-302.530, F.A.C. are to the surface water quality criteria table with an effective date of 02/17/2016 and a notice identification number of 17115667.

Figure 1. Map of Facility and Discharge Locations



Results

Physical and Chemical Parameters (See Table 1 and Appendices C, and D)

- All field measured effluent water quality parameters complied with Class III Water Quality Criteria for Fresh Waters and effluent permit limits.

Analytical Water Chemistry (See Table 2 and Appendix D)

- All water chemistry analytes detected in the effluent grab sample complied with Class III Water Quality Criteria for Fresh Waters and effluent permit limits.

- For comparative purposes only, the effluent grab single sample values for total phosphorus and total nitrogen were greater than the West Central Nutrient Region NNC annual geometric mean values for the region.

Metals (See Table 3 and Appendix D)

- Effluent iron exceeded Class III Water Quality Criterion for Fresh Waters (Subsection 62-302.530(38), F.A.C.) and effluent permit limits in one effluent grab sample.

- Effluent selenium exceeded Class III Water Quality Criterion for Fresh Waters (Subsection 62-302.530(59), F.A.C.) and effluent permit limits in both effluent grab samples.

Organic Constituents (See Table 7 and Appendix D)

- Atrazine (herbicide) and bromacil (herbicide) were detected in the effluent grab sample.

- There are no effluent permit limits for organic constituents.

Literature Cited

Stevenson, R. J. and Bahls, L. L. 1999. Periphyton protocols. Pp. 6.1-6.22 in: Rapid bioassessment protocols for use in wadeable streams and rivers. 2nd edition. By: M. T. Barbour, J. Gerritsen, B. D. Snyder and J. B. Stribling. EPA 841-B-99-002. U. S. Environmental Protection Agency, Office of Water, Washington, D. C.

Table 1. Measured field parameters

Effluent limits, Class III Water Quality Criteria for Fresh Waters, and field parameters

Parameter	Units	Class III Criteria	Effluent Permit Limits	Effluent EFF-02
Temperature	C	-	Report	24.3
pH	SU	6.0 - 8.5	6.0 - 8.5	7.1
Specific Conductance	µmhos/cm	≤ 1,275	≤ 1,275	709
Salinity	ppt	-	-	0.4 c
Dissolved Oxygen	% saturation	≥ 38	≥ 38	88.6
Dissolved Oxygen	mg/L	-	-	7.4

A dash (-) indicates sample/measurement was not collected or criterion/limit does not exist.
c - Value is calculated

Table 2. Analytical water chemistry, microbiological, and toxicological data

Effluent limits, Class III Water Quality Criteria for Fresh Waters, and analytical water chemistry, microbiological, and toxicological data

Analyte	Units	Class III Criteria	Effluent Permit Limits	Effluent EFF-02
Ortho-phosphate	mg P/L	-	Report	4.8
Total Phosphorus	mg P/L	≤ 0.49 g	Report	5.8
Total Ammonia Nitrogen	mg N/L	≤ 3.43 sc	≤ 3.43 sc	0.055
Un-ionized Ammonia (calc salinity)	mg N/L	-	-	< 0.02 c
Nitrate and Nitrite	mg N/L	-	-	1.1
Total Kjeldahl Nitrogen	mg N/L	-	-	0.72
Organic Nitrogen	mg N/L	-	-	0.67 c
Total Nitrogen	mg N/L	≤ 1.65 g	Report	1.8 c
Total Organic Carbon	mg C/L	-	-	15
Chlorophyll *a* - Corrected	µg/L	-	Report	1.3 I
Phaeophytin	µg/L	-	-	1.7 I
Total Suspended Solids	mg/L	-	≤ 150	15
Turbidity	NTU	≤ 29 t	Report	9.3
Color (true)	PCU	-	-	42
Alkalinity	mg CaCO3/L	≥ 20	-	62
Chloride	mg Cl/L	-	-	19
Fluoride	mg F/L	≤ 10.0	≤ 10.0	2.8
Sulfate	mg SO4/L	-	Report	210
Oils and Greases	mg/L	≤ 5.0	-	1.5 U

A dash (-) indicates sample/measurement was not collected or criterion/limit does not exist.
c - Value is calculated
g - Value expressed as an annual geometric mean
s - Single sample
t - Shall not exceed 29 NTUs above background
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
U - Material analyzed for but not detected; value reported is the method detection limit

Table 3. Analytical metals data

Effluent limits, Class III Water Quality Criteria for Fresh Waters, and analytical metals data

Analyte	Units	Effluent Grab Class III Criteria	Effluent Permit Limits	Effluent EFF-2
Hardness	mg CaCO3/L	-	Report	204 c
Aluminum	µg/L	-	-	201
Arsenic	µg/L	≤ 50	≤ 50	4.28
Cadmium	µg/L	≤ 0.459 b	≤ 0.459 b	0.035 I
Calcium	mg/L	-	-	53.7
Chromium, Total [1]	µg/L	≤ 155 b	≤ 11	1.5 I
Copper	µg/L	≤ 17.2 b	≤ 17.2 b	0.40 U
Iron	µg/L	≤ 1,000	≤ 1,000	1,580 e [2]
Lead	µg/L	≤ 7.89 b	≤ 7.89 b	0.20 U
Magnesium	mg/L	-	-	17.0
Nickel	µg/L	≤ 95.4 b	-	4.0
Potassium	mg/L	-	-	2.3
Selenium	µg/L	≤ 5.0	≤ 5.0	7.39 e
Silver	µg/L	≤ 0.07	≤ 0.07	0.010 U
Sodium	mg/L	-	Report	56.2
Zinc	µg/L	≤ 219 b	-	5.0 U

A dash (-) indicates sample/measurement was not collected or criterion/limit does not exist.
b - Value is calculated based on hardness
c - Value is calculated
e -Value exceeds the Class III Water Quality Criteria or permit limits
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
U - Material analyzed for but not detected; value reported is the method detection limit
1 - Class III Freshwater Quality Criterion (62-302.530(19)(a), F.A.C.) is for chromium-III
2- Second effluent grab sample collected for iron was 870 µg/L and did not exceed the criterion.

Table 4. Detected Organic Constituents

Effluent limits, Class III Water Quality Criteria for Fresh Waters, and analytical organic and pesticide data

Analyte	Units	Class III Criteria	Effluent Permit Limits	Effluent Grab
Atrazine	ng/L	-	-	2.2
Bromacil	ng/L	-	-	6.7

A dash (-) indicates sample/measurement was not collected or criterion/limit does not exist.

Appendix A. Facility Summary

PART I: Information gathered prior to sampling event	
Prepared By: Sadira Jenarine	**Contact Number:** (813) 470-5930
Facility Name (as it appears on permit): Mosaic Fertilizer, L.L.C. – Bartow Chemical Plant	**Former Names:** N/A
NPDES Permit Number: FL0001589	**Permit Expiration Date:** August 9, 2025
Physical Address: 3200 State Road 60 W Bartow FL 33830-7805	
District: Southwest	**County:** Polk
Function of Facility: This facility is a phosphate chemical fertilizer manufacturing facility that produces phosphoric acid, sulfuric acid, and ammoniated phosphate fertilizers.	
Facility Type: Industrial Wastewater	**Permitted Capacity (MGD):** N/A
Mean Flow for previous 12 months for all EXTERNAL outfalls listed in permit (list date range including months): D-001 = 1.329 MGD (4/2023 – 4/2024) D-002 = 2.726 MGD (4/2023 – 4/2024)	
If applicable, Mean Flow for previous 12 months for REUSE outfall(s) (list date range including months): N/A	
Description of type of Discharge: ☒ **Continuous** ☐ **Intermittent** ☐ **Seasonal** ☐ **Rainfall Dependent** ☐ **Other, please specify**	

Description of Sampling Location(s) - actual permit designation of permitted sampling point(s):

Monitoring Site Number	Latitude	Longitude	Description of Monitoring Site
EFF-001	27° 53’ 24.5930” N	81° 55’ 23.8383” W	Outfall D-001
I-010	27° 53’ 32.5” N	81° 55’ 15.4” W	Internal Outfall for D-001, located in Lake Donny
SWB-01A	**TBD**	**TBD**	Background monitoring station for Outfall D-001 in Skinned Sapling Creek
SWD-001	27° 53’ 17.4684” N	81° 56’ 08.0212” W	Downstream monitoring station for Outfall D-001 in Skinned Sapling Creek
SWD-Bio1^{+}	**TBD**	**TBD**	Downstream instream biological station for Outfall D-001
EFF-002	27° 52’ 09.3310” N	81° 53’ 41.4730” W	Outfall D-002
I-020	27° 52' 27.1172" N	81° 53' 49.1908W	Internal Outfall for D-002
SWB-002	27° 52’ 03.70” N	81° 54’ 05.5” W	Background monitoring station for Outfall D-002 located where the unnamed reclamation lake drains on west side of Mosaic’s “Power Line Road”.
SWD-002	27° 51’ 39.54” N	81° 52’ 9.27” W	Downstream Monitoring Station for Outfall D-002 within Six Mile Creek, on the west side of C.R. 555
SWD-Bio2^{+}	**TBD**	**TBD**	Downstream instream biological station for Outfall D-002
I-030	27° 53 34.73" N	81° 55' 01.16"W	Internal Outfall, upstream of diverter.

Description of Permitted Outfall(s):

Surface Water Discharge D-001: An existing permitted discharge for non-process wastewater and storm water to Skinned Sapling Creek, Class III Fresh Waters (WBID #1610A) south of SR-60, and thence to the North Prong of the Alafia
River. The outfall structure consists of a 6-foot wide rectangular weir.

Surface Water Discharge D-002: An existing permitted discharge of treated process wastewater, non-process wastewater, and
storm water to an unnamed collection ditch that flows into a segment identified by the permittee as Cedar Branch, Class III Fresh Waters (WBID #1646A), thence to Six Mile Creek for approximately 6 miles (WBID #1644), ultimately entering the Peace River (WBID #1623J), Class III Fresh Waters. The outfall structure consists of a 6-foot wide rectangular weir

Description of Treatment Process (if multiple discharge points, include a detailed map or diagram of facility):

Non-contact process water consists predominately of cooling tower blowdown from sulfuric acid production and power generation, and seal water from vacuum pumps and flash coolers in the phosphoric acid plant. Other minor sources are steam trap discharges, sulfuric acid sample coolers, seal water for centrifugal pumps, and air ejectors on the main blowers in the sulfuric acid plants. Process water from phosphoric acid production and the phosphogypsum stack system may be treated using a mobile two-stage liming and acidulation process. After lime treatment the solids are settled out in two separate impoundment areas, designated SR North and SR South respectively (**Figure 1**), followed by spray aeration for ammonia removal, and then acidulation. The mobile liming station is capable of treating process water at a rate of approximately 2,000 gpm for each stage. This provides an average lime treated flow of approximately 1,000 gallons per minute (gpm) for the two-stage process. The treated process water, if necessary, is then discharged through Outfall D-002.

Storm water from the grassed side slopes of the SGS, from the 20-acre storm water detention pond, and from other storm water lakes south of the SGS [including the P-21 Northeastern Lake] may mix with the treated process wastewater before discharge through Outfall D-002. A Reverse Osmosis (RO) Plant has been constructed on the west side of the closed NGS to treat process water at approximately 1,000 gpm. Storm water treatment includes residence time in on-site ponds and ditches to allow vegetative uptake of nutrients and settling of solids.

PART I: Continued

List <u>current</u> Effluent Limits of Outfall(s) to be Sampled: This should include any AO or CO limits the facility may be under
(Leave cell blank if not applicable)

			Effluent Limitations		Monitoring Requirements			
Parameter	Units	Max/Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow	MGD	Max Max	Report Report	Daily Maximum Monthly Average	Continuous	Recording Flow Meter with Totalizer	EFF-002	
Flow, Total Volume	Mgal/mth	Max	Report	Monthly Total	Monthly	Recording Flow Meter with Totalizer	EFF-002	See I.**Error! Reference source not found.**. **Error! Reference source not found.**
Stream Flow	MGD	Max	Report	Daily Maximum	Monthly	Grab	SWD-002	
pH	s.u.	Max	Report	Daily Minimum	Monthly, when discharging	Grab	SWB-002	See I.**Error! Reference source not found.Error! Reference source not found.**.below
pH	s.u.	Min Max	6.0 8.5	Daily Minimum Daily Maximum	Continuous	Meter	EFF-002	See I.**Error! Reference source not found.**.**Error! Reference source not found.** below
pH	s.u.	Max	Report	Daily Minimum	Monthly, when discharging	Grab	SWD-002	See I.**Error! Reference source not found.**.**Error! Reference source not found.**.below
Turbidity (background)	NTU	Max	Report	Single Sample	Monthly, when discharging	Grab	SWB-002	See I.**Error! Reference source not found.**.**Error! Reference source not found.**. below
Turbidity	NTU	Max	Report	Single Sample	Monthly	Grab	EFF-002	See I.**Error! Reference source not found.**.**Error! Reference source not found.**. below
Turbidity	NTU	Max	Report	Daily Maximum	Monthly, when discharging	Grab	SWD-002	See I.**Error! Reference source not found.**.**Error! Reference source not found.** below.

			Effluent Limitations		Monitoring Requirements			
Parameter	Units	Max/Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Solids, Total Suspended	mg/L	Max Max	50 150	Monthly Average Daily Maximum	Monthly	Grab	EFF-002	See I.**Error! Reference source not found.**.**Error! Reference source not found.**. below
Temperature (C), Water	Deg. C	Max	Report	Daily Maximum	Monthly, when discharging	Grab	SWB-002	See I.**Error! Reference source not found.**.**Error! Reference source not found.**.below
Temperature (C), Water	Deg. C	Max Max	Report Report	Daily Maximum Monthly Average	Weekly	Grab	EFF-002	See I.**Error! Reference source not found.**.**Error! Reference source not found.**.below
Temperature (C), Water	Deg. C	Max	Report	Daily Maximum	Monthly, when discharging	Grab	SWD-002	See I.**Error! Reference source not found.**.**Error! Reference source not found.**.below
Oxygen, Dissolved Percent Saturation	percent	Min	Report	Daily Minimum	Monthly, when discharging	Grab	SWB-002	See I.**Error! Reference source not found.**.**Error! Reference source not found.**. below
Oxygen, Dissolved Percent Saturation	percent	Min Min	38 Report	Daily Average Monthly Average	Weekly	Grab	EFF-002	See I.**Error! Reference source not found.**.**Error! Reference source not found.**. below
Oxygen, Dissolved Percent Saturation	percent	Min	Report	Daily Average	Monthly, when discharging	Grab	SWD-002	See I.**Error! Reference source not found.**.**Error! Reference source not found.**. below
Specific Conductance	µmhos/cm	Max	Calculated	Single Sample	Weekly	Grab	EFF-002	
Specific Conductance (background)	µmhos/cm	Max	Report	Single Sample	Weekly, when discharging	Grab	SWB-002	See I.**Error! Reference source not found.**.**Error! Reference source not found.**. below
Specific Conductance	µmhos/cm	Max	Report	Daily Maximum	Monthly, when discharging	Grab	SWD-002	See I.**Error! Reference source not found.**.**Error! Reference source not found.**. below
Nitrogen, Total	mg/L	Max	Report	Daily Maximum	Monthly, when discharging	Grab	SWB-002	

			Effluent Limitations		Monitoring Requirements			
Parameter	Units	Max/Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Nitrogen, Total	mg/L	Max Max	Report Report	Monthly Average Daily Maximum	Weekly	Grab	EFF-002	
Nitrogen, Total	mg/L	Max	Report	Daily Maximum	Monthly, when discharging	Grab	SWD-002	
Nitrogen, Total	mg/L	Max	Report	Annual Geometric Mean	Annually	Calculated	SWD-002	See I.**Error! Reference source not found.**.**Error! Reference source not found.** below
Nitrogen, Total	lb/day	Max Max	Report Report	Monthly Average Daily Maximum	Weekly	Calculated	EFF-002	See I.**Error! Reference source not found.**.**Error! Reference source not found.**. below
Nitrogen, Total	lb/mth	Max	Report	Monthly Total	Monthly	Calculated	EFF-002	See I.**Error! Reference source not found.**.**Error! Reference source not found.** below
Nitrogen, Total	lb/yr.	Max	Report	Annual Total	Annually	Calculated	EFF-002	See I.A.**Error! Reference source not found.** below
Nitrogen, Total	lb/yr.	Max	Report	5 Year Rolling Average	Annually	Calculated	EFF-002	See I.**Error! Reference source not found.**.**Error! Reference source not found.**. below
Phosphorus, Total (as P)	mg/L	Max	Report	Daily Maximum	Monthly, when discharging	Grab	SWB-002	
Phosphorus, Total (as P)	mg/L	Max Max	Report Report	Monthly Average Daily Maximum	Weekly	Grab	EFF-002	
Phosphorus, Total (as P)	mg/L	Max	Report	Daily Maximum	Monthly, when discharging	Grab	SWD-002	
Phosphorus, Total (as P)	mg/L	Max	Report	Annual Geometric Mean	Annually	Calculated	SWD-002	See I.**Error! Reference source not found.**.**Error! Reference source not found.** below

			Effluent Limitations		Monitoring Requirements			
Parameter	Units	Max/Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Phosphorus, Total (as P)	lb/day	Max Max	Report Report	Monthly Average Daily Maximum	Weekly	Calculated	EFF-002	See I.**Error! Reference source not found.**.**Error! Reference source not found.**. below
Phosphorus, Total (as P)	lb/mth	Max	Report	Monthly Total	Monthly	Calculated	EFF-002	See I.**Error! Reference source not found.**.**Error! Reference source not found.** below
Phosphorus, Total (as P)	lb/yr.	Max	Report	Annual Total	Annually	Calculated	EFF-002	See I.A.**Error! Reference source not found.** below
Phosphorus, Total (as P)	lb/yr.	Max	Report	5 Year Rolling Average	Annually	Calculated	EFF-002	See I.**Error! Reference source not found.**.**Error! Reference source not found.**. below
Phosphate, Ortho (as PO4)	mg/L	Max Max	Report Report	Monthly Average Daily Maximum	Weekly	Grab	EFF-002	
Nitrogen, Ammonia, Total (as N) (Effluent)	mg/L	Max Max	Report Report	30 Day Average Daily Maximum	Weekly	Grab	EFF-002	See I.**Error! Reference source not found.Error! Reference source not found.**. below.
Nitrogen, Ammonia, Total (as N) (Calculated limit)	mg/L	Max	Report	30 Day Average	Weekly	Grab	EFF-002	See I.**Error! Reference source not found.Error! Reference source not found.**. below
Nitrogen, Ammonia, Total (as N) (Effluent minus Limit)	mg/L	Max	0.0†	30 Day Average	Weekly	Calculated	EFF-002	See I.**Error! Reference source not found.**.**Error! Reference source not found.**. below.
Nitrogen, Ammonia, Total (as N) (Effluent/limit ratio)	Ratio	Max	2.5††	Maximum Value	Weekly	Calculated	EFF-002	See I.**Error! Reference source not found.**.**Error! Reference source not found.**. below.
Chlorophyll a	µg/L	Max	Report	Daily Maximum	Monthly, when discharging	Grab	SWB-002	
Chlorophyll a	µg/L	Max	Report	Daily Maximum	Monthly	Grab	EFF-002	

			Effluent Limitations		Monitoring Requirements			
Parameter	Units	Max/Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Chlorophyll a	µg/L	Max	Report	Daily Maximum	Monthly, when discharging	Grab	SWD-002	
Chlorophyll a	µg/L	Max	Report	Annual Geometric Mean	Annually	Calculated	SWD-002	See I.**Error! Reference source not found.Error! Reference source not found.** below
Fluoride, Total (as F)	mg/L	Max Max	10.0 Report	Daily Maximum Monthly Average	Weekly	Grab	EFF-002	
Sodium, Total Recoverable	mg/L	Max	Report	Daily Maximum	Monthly	Grab	EFF-002	
Sulfate, Total	mg/L	Max	Report	Daily Maximum	Monthly	Grab	EFF-002	
Hardness, Total (as CaCO3) #	mg/L	Max	Report	Daily Maximum	Monthly	Grab	EFF-002	See I.**Error! Reference source not found..Error! Reference source not found..** and I.**Error! Reference source not found.Error! Reference source not found.** below
Arsenic, Total Recoverable #	µg/L	Max	50	Daily Maximum	Monthly	Grab	EFF-002	
Cadmium, Total Recoverable #	µg/L	Max	Calculated	Daily Maximum	Monthly	Grab	EFF-002	See I.**Error! Reference source not found..Error! Reference source not found.,Error! Reference source not found..** and I.**Error! Reference source not found.Error! Reference source not found..** below
Chromium, Total Recoverable #	µg/L	Max	11	Daily Maximum	Monthly	Grab	EFF-002	
Copper, Total Recoverable #	µg/L	Max	Calculated	Daily Maximum	Monthly	Grab	EFF-002	See I.**Error! Reference source not found..Error! Reference source not found.,Error! Reference source not found..** and I.**Error! Reference source not found.Error! Reference source not found..** below

			Effluent Limitations		Monitoring Requirements			
Parameter	Units	Max/Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Lead, Total Recoverable#	µg/L	Max	Calculated	Daily Maximum	Monthly	Grab	EFF-002	See I.**Error! Reference source not found.**.**Error! Reference source not found.**,**Error! Reference source not found.**. and I.**Error! Reference source not found.**.**Error! Reference source not found.**. below
Mercury, Total Recoverable#	µg/L	Max	0.012	Daily Maximum	Monthly	Grab	EFF-002	
Silver, Total Recoverable*#	µg/L	Max	0.07	Daily Maximum	Monthly	Grab	EFF-002	
Selenium, Total Recoverable#	µg/L	Max	5.0	Daily Maximum	Monthly	Grab	EFF-002	
Iron, Total Recoverable#	mg/L	Max	1.0	Daily Maximum	Monthly	Grab	EFF-002	
Alpha, Gross Particle Activity	pCi/L	Max	15	Daily Maximum	Monthly	Grab	EFF-002	See I.**Error! Reference source not found.**.**Error! Reference source not found.**. below
Radium 226 + Radium 228, Total	pCi/L	Max	5	Daily Maximum	Monthly	Grab	EFF-002	See I.**Error! Reference source not found.Error! Reference source not found.**. below
Chronic Whole Effluent Toxicity, 7-Day IC25 (Ceriodaphnia dubia)	percent	Min	100	Single Sample	Semi-Annually; twice per year	24-hr TPC	EFF-002	See I.**Error! Reference source not found.**.1 below
Chronic Whole Effluent Toxicity, 7-Day IC25 (Pimephales promelas)	percent	Min	100	Single Sample	Semi-Annually; twice per year	24-hr TPC	EFF-002	See I.**Error! Reference source not found.**.1. below

PART I: Continued

Receiving Waters:	**Classification (indicate whether fresh or marine):**
D-001 discharges to: Skinned Sapling Creek and North Prong Alafia River D-002 discharges to: Cedar Branch, thence to Six Mile Creek, ultimately into the Peace River	Class III Freshwaters

Toxicity Test Requirements (routine and/or additional test language, test species, salinity adjustment, etc.):

1. The permittee shall comply with the following requirements to evaluate **chronic whole effluent toxicity** of the discharge from outfalls D-001 and D-002.
   a. Effluent Limitation
      (1) In any routine or additional follow-up test for chronic whole effluent toxicity, the 25 percent inhibition concentration (IC25) for reproduction or growth shall not be less than 100% effluent. [Rules 62-302.530(61) and 62-4.241(1)(b), F.A.C.]
      (2) For acute whole effluent toxicity, the 96-hour LC50 shall not be less than 100% effluent in any test. [Rule 62-302.500(1)(a)4. and 62-4.241(1)(a), F.A.C.]
   b. Monitoring Frequency
      (1) Routine toxicity tests shall be conducted **once every six months,** the first starting within 60 days of the issuance date of this permit, and when discharging and lasting for the duration of this permit, or upon the first discharge thereafter where a sufficient sample for testing can be obtained.
   c. Sampling Requirements
      (1) For each routine test or additional follow-up test conducted, a total of three 24-hour composite samples of final effluent shall be collected and used in accordance with the sampling protocol discussed in EPA-821-R-02-013, Section 8.
      (2) The first sample shall be used to initiate the test. The remaining two samples shall be collected according to the protocol and used as renewal solutions on Day 3 (48 hours) and Day 5 (96 hours) of the test.
      (3) Samples for routine and additional follow-up tests shall not be collected on the same day.
   d. Test Requirements
      (1) Routine Tests: All routine tests shall be conducted using a control (0% effluent) and a minimum of five test dilutions: **100%**, **50%**, **25%**, **12.5%**, and **6.25%** final effluent.
      (2) The permittee shall conduct a daphnid, **Ceriodaphnia dubia**, Survival and Reproduction Test and a fathead minnow, **Pimephales promelas**, Larval Survival and Growth Test, concurrently.
      (3) All test species, procedures and quality assurance criteria used shall be in accordance with **Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms**, 4th Edition, EPA-821-R-02-013. Any deviation of the bioassay procedures outlined herein shall be submitted in writing to the Department for review and approval prior to use. In the event the above method is revised, the permittee shall conduct chronic toxicity testing in accordance with the revised method.
      (4) The control water and dilution water shall be moderately hard water as described in EPA-821-R-02-013, Section 7.2.3.
   e. Quality Assurance Requirements

(1) A standard reference toxicant (SRT) quality assurance (QA) chronic toxicity test shall be conducted with each species used in the required toxicity tests either concurrently or initiated no more than 30 days before the date of each routine or additional follow-up test conducted. Additionally, the SRT test must be conducted concurrently if the test organisms are obtained from outside the test laboratory unless the test organism supplier provides control chart data from at least the last five monthly chronic toxicity tests using the same reference toxicant and test conditions. If the organism supplier provides the required SRT data, the organism supplier's SRT data and the test laboratory's monthly SRT-QA data shall be included in the reports for each companion routine or additional follow-up test required.

(2) If the mortality in the control (0% effluent) exceeds 20% for either species in any test or the "test acceptability criteria" are not met, the test for that species (including the control) shall be invalidated and the test repeated. Test acceptability criteria for each species are defined in EPA-821-R-02-013, Section 13.12 (**Ceriodaphnia dubia**) and Section 11.11 (**Pimephales promelas**). The repeat test shall begin within 21 days after the last day of the invalid test.

(3) If 100% mortality occurs in all effluent concentrations for either test species prior to the end of any test and the control mortality is less than 20% at that time, the test (including the control) for that species shall be terminated with the conclusion that the test fails and constitutes non-compliance.

(4) Routine and additional follow-up tests shall be evaluated for acceptability based on the observed dose-response relationship as required by EPA-821-R-02-013, Section 10.2.6., and the evaluation shall be included with the bioassay laboratory reports.

f. Reporting Requirements

(1) Results from all required tests shall be reported on the Discharge Monitoring Report (DMR) as follows:

(a) Routine and Additional Follow-up Test Results: The calculated IC25 for reproduction or growth for each test species shall be entered on the DMR.

(2) A bioassay laboratory report for each routine test shall be prepared according to EPA-821-R-02-013, Section 10, Report Preparation and Test Review, and mailed to the Department at the address below within 30 days after the last day of the test.

(3) For additional follow-up tests, a single bioassay laboratory report shall be prepared according to EPA-821-R-02-013, Section 10, and mailed within 30 days after the last day of the second valid additional follow-up test.

(4) Data for invalid tests shall be included in the bioassay laboratory report for the repeat test.

(5) The same bioassay data shall not be reported as the results of more than one test.

(6) All bioassay laboratory reports shall be sent by electronic mail to DWRMIW.PM@dep.state.fl.us or on a compact disk (CD or DVD) to:
Florida Department of Environmental Protection
Southwest District Office
13051 N Telecom Pkwy, Suite 101
Temple Terrace, Florida 33637-0926

g. Test Failures

(1) A test fails when the test results do not meet the limits in 1.a(1).

(2) Additional Follow-up Tests:

(a) If a routine test does not meet the chronic toxicity limitation in 1.a.(1) above, the permittee shall notify the Department at the address above within 21 days

after the last day of the failed routine test and conduct two additional follow-up tests on each species that failed the test in accordance with 1.d.

(b) The first test shall be initiated within 28 days after the last day of the failed routine test. The remaining additional follow-up tests shall be conducted weekly thereafter until a total of two valid additional follow-up tests are completed.

(c) The first additional follow-up test shall be conducted using a control (0% effluent) and a minimum of five dilutions: 100%, 50%, 25%, 12.5%, and 6.25% effluent. The permittee may modify the dilution series in the second additional follow-up test to more accurately bracket the toxicity such that at least two dilutions above and two dilutions below the target concentration and a control (0% effluent) are run. All test results shall be analyzed according to the procedures in EPA-821-R-02-013.

(3) In the event of three valid test failures (whether routine or additional follow-up tests) within a 12-month period, the permittee shall notify the Department within 21 days after the last day of the third test failure.

(a) The permittee shall submit a plan for correction of the effluent toxicity within 60 days after the last day of the third test failure.

(b) The Department shall review and approve the plan before initiation.

(c) The plan shall be initiated within 30 days following the Department's written approval of the plan.

(d) Progress reports shall be submitted quarterly to the Department at the address above.

(e) During the implementation of the plan, the permittee shall conduct quarterly routine whole effluent toxicity tests in accordance with 1.d. Additional follow-up tests are not required while the plan is in progress. Following completion or termination of the plan, the frequency of monitoring for routine and additional follow-up tests shall return to the schedule established in 1.b(1). If a routine test is invalid according to the acceptance criteria in EPA-821-R-02-013, a repeat test shall be initiated within 21 days after the last day of the invalid routine test.

(f) Upon completion of four consecutive quarterly valid routine tests that demonstrate compliance with the effluent limitation in 1.a(1) above, the permittee may submit a written request to the Department to terminate the plan. If the facility doesn't have a discharge during a scheduled testing quarter pursuant to this condition (or successive consecutive quarters), valid test results from the next consecutive testing quarter during which a discharge has occurred, shall be considered to satisfy the consecutive quarterly testing requirement The plan shall be terminated upon written verification by the Department that the facility has passed at least four consecutive quarterly valid routine whole effluent toxicity tests. If a test within the sequence of the four is deemed invalid but is replaced by a repeat valid test initiated within 21 days after the last day of the invalid test, the invalid test will not be counted against the requirement for four consecutive quarterly valid routine tests for the purpose of terminating the plan.

(4) If chronic toxicity test results indicate greater than 50% mortality within 96 hours in an effluent concentration equal to or less than the effluent concentration specified as the acute toxicity limit in 18.a(2), the Department may revise this permit to require acute definitive whole effluent toxicity testing.

(5) The additional follow-up testing and the plan do not preclude the Department taking enforcement action for acute or chronic whole effluent toxicity failures.

Administrative or Consent Orders (date executed, specific requirements, interim limit dates-if applicable, etc.): **OGC File No. 90-1541** Executed on June 5, 1991. *Ground water modeling and Fate & Transport Analysis:* monitoring of remnant plume after installation of slurry walls around north, eastern, and southern boundaries of Stack. **OGC File No. 12-1207** Executed on August 27, 2012. In the process of being closed. *Removal of water from CJ North using a Spray Evaporation System (SES)*
Facility Mixing Zone Details (if applicable): N/A
List Permit Violations (DMR data) and plant upsets that occurred at the plant within the last year: See DMR trends/exceedances.
Describe previous FYI and WQBEL study: In June of 2018, Mosaic submitted a Level I Water Quality Based Effluent Limitation Study (WQBEL) to the Department, on behalf of *Brown and Caldwell* as part of a permit renewal application. The results and conclusions of this WQBEL Study provide reasonable assurance that the current discharge quality and volume from the Mosaic Bartow Facility allow for receiving and downstream waters to achieve applicable nutrient water quality standards.
Describe previous or current Enforcement Actions (including WLs): N/A

Describe any violations or problems noted in previous inspection:
In a DCI conducted on 12/13/2023, Bartow received a "Significant Out of Compliance" for failure to submit documents from Compliance Schedule Items in permit. A CAO was sent, the facility produced the documents on February 19, 2024, and an in-compliance letter was sent to the facility.

Discuss whether DMR trends within previous five years are improving or declining:
Slightly declining; There have been a total of 41 exceedances from 2019-2024. 15 of those are in 2022.

Facility ID	Monitoring Group	Date	Monitoring Location	Description	Result	Limit	Units	Statistical Ba	Exceedance
FL0001589	G-008	12/31/23	SWI-S9	Sodium, Total Recoverable	1030	160	mg/L	DD - Daily M	E
FL0001589	G-008	12/31/23	SWI-S9	Flouride, Total (as F)	13.4	4	mg/L	DD - Daily M	E
FL0001589	G-008	12/31/23	SWI-S9	Alpha, Gross Prectical Activity	18.1	15	pCi/L	DD - Daily M	E
FL0001589	G-008	9/30/23	SWI-S9	Sodium, Total Recoverable	1050	160	mg/L	DD - Daily M	E
FL0001589	G-008	9/30/23	SWI-S9	Flouride, Total (as F)	14.5	4	mg/L	DD - Daily M	E
FL0001589	G-008	9/30/23	SWI-S9	Alpha, Gross Prectical Activity	16.9	15	pCi/L	DD - Daily M	E
FL0001589	G-008	6/30/23	SWI-S9	Sodium, Total Recoverable	1060	160	mg/L	DD - Daily M	E
FL0001589	G-008	6/30/23	SWI-S9	Flouride, Total (as F)	15	4	mg/L	DD - Daily M	E
FL0001589	G-008	3/31/23	SWI-S9	Sodium, Total Recoverable	943	160	mg/L	DD - Daily M	E
FL0001589	G-008	3/31/23	SWI-S9	Flouride, Total (as F)	12.8	4	mg/L	DD - Daily M	E
FL0001589	G-008	12/31/22	SWI-S9	Sodium, Total Recoverable	880	160	mg/L	DD - Daily M	E
FL0001589	G-008	12/31/22	SWI-S9	Flouride, Total (as F)	10.5	4	mg/L	DD - Daily M	E

FL0001589	D-002	10/31/22	EFF-002	Nitrogen, Ammonia, total (as	0.57	0	mg/L	3C - 30 Day A	E
FL0001589	G-008	9/30/22	SWI-S9	Sodium, Total Recoverable	1180	160	mg/L	DD - Daily M	E
FL0001589	G-008	9/30/22	SWI-S9	Flouride, Total (as F)	15.5	4	mg/L	DD - Daily M	E
FL0001589	G-008	6/30/22	SWI-S9	Sodium, Total Recoverable	1070	160	mg/L	DD - Daily M	E
FL0001589	G-008	6/30/22	SWI-S9	Flouride, Total (as F)	14.7	4	mg/L	DD - Daily M	E
FL0001589	MWC-35A	6/30/22	MWC-35A	Alpha, Gross Prectical Activity	26.5	15	pCi/L	MB - Maximu	E
FL0001589	D-001	6/30/22	EFF-001	IC25 Statre 7day Chr Ceriodaph	10.9	100	percent	ME - Minimu	E
FL0001589	D-001	6/30/22	EFF-001	IC25 Statre 7day Chr Ceriodaph	9.71	100	percent	ME - Minimu	E
FL0001589	D-001	6/30/22	EFF-001	IC25 Statre 7day Chr Ceriodaph	4.28	100	percent	ME - Minimu	E
FL0001589	D-002	6/30/22	EFF-002	IC25 Statre 7day Chr Ceriodaph	78.6	100	percent	ME - Minimu	E
FL0001589	D-002	6/30/22	EFF-002	IC25 Statre 7day Chr Ceriodaph	76.5	100	percent	ME - Minimu	E
FL0001589	D-002	6/30/22	EFF-002	IC25 Statre 7day Chr Ceriodaph	4.54	100	percent	ME - Minimu	E
FL0001589	G-008	3/31/22	SWI-S9	Sodium, Total Recoverable	1050	160	mg/L	DD - Daily M	E
FL0001589	G-008	3/31/22	SWI-S9	Flouride, Total (as F)	13.1	4	mg/L	DD - Daily M	E
FL0001589	MWC-35A	3/31/22	MWC-35A	Alpha, Gross Prectical Activity	16.3	15	pCi/L	MB - Maximu	E
FL0001589	G-008	12/31/21	SWI-S9	Sodium, Total Recoverable	783	160	mg/L	DD - Daily M	E
FL0001589	G-008	12/31/21	SWI-S9	Flouride, Total (as F)	12.7	4	mg/L	DD - Daily M	E
FL0001589	G-008	9/30/21	SWI-S9	Sodium, Total Recoverable	933	160	mg/L	DD - Daily M	E

FL0001589	G-008	9/30/21	SWI-S9	Flouride, Total (as F)	13.8	4	mg/L	DD - Daily M	E
FL0001589	G-008	6/30/21	SWI-S9	Sodium, Total Recoverable	918	160	mg/L	DD - Daily M	E
FL0001589	G-008	6/30/21	SWI-S9	Flouride, Total (as F)	14.8	4	mg/L	DD - Daily M	E
FL0001589	G-008	3/31/21	SWI-S9	Sodium, Total Recoverable	830	160	mg/L	DD - Daily M	E
FL0001589	G-008	3/31/21	SWI-S9	Flouride, Total (as F)	13.6	4	mg/L	DD - Daily M	E
FL0001589	G-008	12/31/20	SWI-S9	Sodium, Total Recoverable	888	160	mg/L	DD - Daily M	E
FL0001589	G-008	12/31/20	SWI-S9	Flouride, Total (as F)	13.8	4	mg/L	DD - Daily M	E
FL0001589	MWC-35A	12/31/20	MWC-35A	Alpha, Gross Prectical Activity	15.3	15	pCi/L	MB - Maximu	E
FL0001589	MWC-35A	6/30/20	MWC-35A	Alpha, Gross Prectical Activity	27.4	15	pCi/L	MB - Maximu	E
FL0001589	MWC-35A	12/31/19	MWC-35A	Alpha, Gross Prectical Activity	18.6	15	pCi/L	MB - Maximu	E
FL0001589	MWC-35A	6/30/19	MWC-35A	Alpha, Gross Prectical Activity	24.6	15	pCi/L	MB - Maximu	E

Additional Comments (this should include a trend of the Effluent, i.e. if the facility is now Reuse):
N/A

Appendix B. Explanations of Measurements

Biological assessments are prepared by DEP staff to provide information for review of NPDES permit renewal applications. Biological assessments, in conjunction with other information concerning the subject facility and its receiving-water body, are used to determine appropriate permit conditions. References to Rule 62-302.530, F.A.C., are to the currently applicable surface water quality criteria table with an effective date of 02/17/2016 and a notice identification number of 17115667.

- **Chemical Analyses of the Effluent**

  The effluent was analyzed for nutrients, metals, organic constituents (base, neutral, and acid extractables) and pesticides following DEP SOPs. The results from these analyses were compared with Water Quality Criteria (Chapter 62-302, F.A.C.) and facility permit limits.

- **Chlorophyll *a* Content**

  Chlorophyll *a* content is an estimate of algal biomass. High algal biomass implies nutrient stress (Stevenson and Bahls 1999) and may be constitute exceedances of Subsection 62-302.530(47), F.A.C., Paragraph 62-302.530(48)(a) F.A.C. and/or Paragraph 62-302.530(48)(b) F.A.C.

- **Definition of Qualifiers** (Rule 62-160.700, F.A.C.)

  A - Value reported is the mean of two or more determinations
  B - Results based on colony counts outside the acceptable range.
  I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
  J - Estimated value
  K - Actual value is known to be less than value given
  L - Actual value is known to be greater than value given
  N - Presumptive evidence of presence of material.
  O - Sampled, but analysis lost or not performed.
  Q - Sample held beyond normal holding time.
  T - Value reported is less than the criterion of detection.
  U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
  V - Analyte was detected in both sample and method blank.
  X - Too few individuals to calculate SCI value.
  Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
  Z - Colonies were too numerous to count (TNTC)

Appendix C. Chain of Custody

Request Number: RQ-2023-11-13-50

FYI3 Mosaic Fertilizer, LLC - Tampa Phosphate Warehouse FL0166057

Customer: SW-DIST

Project ID: FYI3

Florida Department of Environmental Protection
Central Laboratory Submittal Form

Page 1 of 3
last revised Jan 25, 2018

Requester: Benjamin Nomann
Field Report Prepared By: Evelyn Sardinas
Collected By: Evelyn Sardinas
Sampling Agency:

Location			☐ Comp ☑ Grab	Collection (comp begin or grab) Date 4/22/24 Time 10:30		Eastern Central	Composite end Date	Time	Bottle Group(s) (See pg 2)		
Field ID EFF-002			Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen 7.42 88.6	☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)				
WIN/STORET #			Temp (C) 24.3	pH 7.11	Sample Depth	☐ ft ☐ m	Sp. Conductance (umho/cm) 709				
Latitude	☐ dd ☐ dms	Longitude	☐ dd ☐ dms	Salinity (ppt) 0.35	Comments 2493 GPM 3.59 MGD						
Location			☐ Comp ☑ Grab	Collection (comp begin or grab) Date 4/22/24 Time 10:50		Eastern Central	Composite end Date	Time	Bottle Group(s)		
Field ID EFF-002			Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen 7.22 89.8	☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)				
WIN/STORET #			Temp (C) 23.2	pH 6.99	Sample Depth	☐ ft ☐ m	Sp. Conductance (umho/cm) 648				
Latitude	☐ dd ☐ dms	Longitude	☐ dd ☐ dms	Salinity (ppt) 0.31	Comments Collected for Field Blanks; Misunderstanding effluent water used, not DI						
Location			☐ Comp ☐ Grab	Collection (comp begin or grab) Date Time		Eastern Central	Composite end Date	Time	Bottle Group(s)		
Field ID			Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen	☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)				
WIN/STORET #			Temp (C)	pH	Sample Depth	☐ ft ☐ m	Sp. Conductance (umho/cm)				
Latitude	☐ dd ☐ dms	Longitude	☐ dd ☐ dms	Salinity (ppt)	Comments						
Location			☐ Comp ☐ Grab	Collection (comp begin or grab) Date Time		Eastern Central	Composite end Date	Time	Bottle Group(s)		
Field ID			Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen	☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)				
WIN/STORET #			Temp (C)	pH	Sample Depth	☐ ft ☐ m	Sp. Conductance (umho/cm)				
Latitude	☐ dd ☐ dms	Longitude	☐ dd ☐ dms	Salinity (ppt)	Comments						

Relinquished By:	Date/Time	Shipping Method	Number of Coolers Shipped:	Received By:	Date/Time
				ARD	4-23-24 8:58

Appendix D. Chemical Analysis of Effluent

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
4/22/2024 10:30	Effluent Grab	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	1.3 I	µg/L	0.93	2.8
4/22/2024 10:30	Effluent Grab	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Uncorrected	2.4	µg/L	0.68	2.0
4/22/2024 10:30	Effluent Grab	Chlorophyll/Grain Size/BOD	Phaeophytin-a	1.7 I	µg/L	1.0	3.0
4/22/2024 10:30	Effluent Grab	Metals	Aluminum	201	µg/L	5.0	20
4/22/2024 10:50	Effluent Grab	Metals	Aluminum	110	µg/L	5.0	20
4/22/2024 10:30	Effluent Grab	Metals	Arsenic	4.28	µg/L	0.050	0.20
4/22/2024 10:50	Effluent Grab	Metals	Arsenic	4.05	µg/L	0.050	0.20
4/22/2024 10:30	Effluent Grab	Metals	Cadmium	0.035 I	µg/L	0.020	0.080
4/22/2024 10:50	Effluent Grab	Metals	Cadmium	0.029 I	µg/L	0.020	0.080
4/22/2024 10:50	Effluent Grab	Metals	Calcium	53.4	mg/L	0.075	0.30
4/22/2024 10:30	Effluent Grab	Metals	Calcium	53.7	mg/L	0.075	0.30
4/22/2024 10:50	Effluent Grab	Metals	Chromium	1.2 I	µg/L	0.40	1.6
4/22/2024 10:30	Effluent Grab	Metals	Chromium	1.5 I	µg/L	0.40	1.6
4/22/2024 10:30	Effluent Grab	Metals	Copper	0.40 U	µg/L	0.40	0.80
4/22/2024 10:50	Effluent Grab	Metals	Copper	0.40 U	µg/L	0.40	0.80
4/22/2024 10:50	Effluent Grab	Metals	Iron	870	µg/L	30	120
4/22/2024 10:30	Effluent Grab	Metals	Iron	1.58E+03	µg/L	30	120
4/22/2024 10:50	Effluent Grab	Metals	Lead	0.20 U	µg/L	0.20	0.40
4/22/2024 10:30	Effluent Grab	Metals	Lead	0.20 U	µg/L	0.20	0.40
4/22/2024 10:50	Effluent Grab	Metals	Magnesium	17.0	mg/L	0.040	0.16
4/22/2024 10:30	Effluent Grab	Metals	Magnesium	17.0	mg/L	0.040	0.16
4/22/2024 10:30	Effluent Grab	Metals	Nickel	4.0	µg/L	0.50	2.0
4/22/2024 10:50	Effluent Grab	Metals	Nickel	3.7	µg/L	0.50	2.0
4/22/2024 10:30	Effluent Grab	Metals	Potassium	2.3	mg/L	0.30	1.2
4/22/2024 10:50	Effluent Grab	Metals	Potassium	2.3	mg/L	0.30	1.2
4/22/2024 10:30	Effluent Grab	Metals	Selenium	7.39	µg/L	0.20	0.80
4/22/2024 10:50	Effluent Grab	Metals	Selenium	6.90	µg/L	0.20	0.80
4/22/2024 10:30	Effluent Grab	Metals	Silver	0.010 U	µg/L	0.010	0.040
4/22/2024 10:50	Effluent Grab	Metals	Silver	0.010 U	µg/L	0.010	0.040
4/22/2024 10:30	Effluent Grab	Metals	Sodium	56.2	mg/L	0.50	2.0
4/22/2024 10:50	Effluent Grab	Metals	Sodium	56.1	mg/L	0.50	2.0
4/22/2024 10:30	Effluent Grab	Metals	Zinc	5.0 U	µg/L	5.0	20

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
4/22/2024 10:50	Effluent Grab	Metals	Zinc	5.0 U	µg/L	5.0	20
4/22/2024 10:50	Effluent Grab	Nutrients	Ammonia-N	0.053	mg N/L	0.0020	0.0050
4/22/2024 10:30	Effluent Grab	Nutrients	Ammonia-N	0.055	mg N/L	0.0020	0.0050
4/22/2024 10:50	Effluent Grab	Nutrients	Chloride	19	mg Cl/L	2.0	5.0
4/22/2024 10:30	Effluent Grab	Nutrients	Chloride	19	mg Cl/L	2.0	5.0
4/22/2024 10:30	Effluent Grab	Nutrients	Color (true)	42	PCU	2.5	6.0
4/22/2024 10:50	Effluent Grab	Nutrients	Color (true)	42	PCU	2.5	6.0
4/22/2024 10:30	Effluent Grab	Nutrients	Dissolved Oxygen %Sat	88.6	%Sat		
4/22/2024 10:50	Effluent Grab	Nutrients	Dissolved Oxygen %Sat	84.8	%Sat		
4/22/2024 10:50	Effluent Grab	Nutrients	Fluoride	2.8	mg F/L	0.025	0.10
4/22/2024 10:30	Effluent Grab	Nutrients	Fluoride	2.8	mg F/L	0.025	0.10
4/22/2024 10:30	Effluent Grab	Nutrients	Kjeldahl Nitrogen	0.72	mg N/L	0.080	0.20
4/22/2024 10:50	Effluent Grab	Nutrients	Kjeldahl Nitrogen	0.60	mg N/L	0.080	0.20
4/22/2024 10:30	Effluent Grab	Nutrients	NO2NO3-N	1.1	mg N/L	0.040	0.10
4/22/2024 10:50	Effluent Grab	Nutrients	NO2NO3-N	1.2	mg N/L	0.040	0.10
4/22/2024 10:30	Effluent Grab	Nutrients	O-Phosphate-P	4.8	mg P/L	0.080	0.20
4/22/2024 10:50	Effluent Grab	Nutrients	O-Phosphate-P	4.7	mg P/L	0.080	0.20
4/22/2024 10:50	Effluent Grab	Nutrients	Organic Carbon	15	mg C/L	0.50	1.0
4/22/2024 10:30	Effluent Grab	Nutrients	Organic Carbon	15	mg C/L	0.50	1.0
4/22/2024 10:30	Effluent Grab	Nutrients	pH	7.11	SU		
4/22/2024 10:50	Effluent Grab	Nutrients	pH	6.99	SU		
4/22/2024 10:30	Effluent Grab	Nutrients	Specific Conductance	709	µmhos/cm		
4/22/2024 10:50	Effluent Grab	Nutrients	Specific Conductance	648	µmhos/cm		
4/22/2024 10:30	Effluent Grab	Nutrients	Sulfate	210	mg SO4/L	2.0	5.0
4/22/2024 10:50	Effluent Grab	Nutrients	Sulfate	210	mg SO4/L	2.0	5.0
4/22/2024 10:30	Effluent Grab	Nutrients	Temperature	24.3	C		
4/22/2024 10:50	Effluent Grab	Nutrients	Temperature	23.2	C		
4/22/2024 10:50	Effluent Grab	Nutrients	Total Alkalinity	63	mg CaCO3/L	0.65	2.5
4/22/2024 10:30	Effluent Grab	Nutrients	Total Alkalinity	62	mg CaCO3/L	0.65	2.5
4/22/2024 10:50	Effluent Grab	Nutrients	Total-P	5.5	mg P/L	0.10	0.50
4/22/2024 10:30	Effluent Grab	Nutrients	Total-P	5.8	mg P/L	0.10	0.50
4/22/2024 10:30	Effluent Grab	Nutrients	TSS	15	mg/L	2.0	10
4/22/2024 10:30	Effluent Grab	Nutrients	Turbidity	9.3	NTU	0.10	1.0
4/22/2024 10:50	Effluent Grab	Nutrients	Turbidity	6.2	NTU	0.10	1.0
4/22/2024 10:30	Effluent Grab	Overflow	HEM	1.5 U	mg/L	1.5	4.3
4/22/2024 10:50	Effluent Grab	Overflow	HEM	1.5 U	mg/L	1.5	4.4

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
4/22/2024 10:50	Effluent Grab	Pesticides	Acetochlor	0.23 U	ng/L	0.23	1.1
4/22/2024 10:30	Effluent Grab	Pesticides	Acetochlor	0.22 U	ng/L	0.22	1.1
4/22/2024 10:50	Effluent Grab	Pesticides	Alachlor	0.46 U	ng/L	0.46	2.3
4/22/2024 10:30	Effluent Grab	Pesticides	Alachlor	0.44 U	ng/L	0.44	2.2
4/22/2024 10:30	Effluent Grab	Pesticides	Ametryn	1.2 U	ng/L	1.2	6.1
4/22/2024 10:50	Effluent Grab	Pesticides	Ametryn	1.3 U	ng/L	1.3	6.3
4/22/2024 10:50	Effluent Grab	Pesticides	Atrazine	2.0	ng/L	0.23	1.1
4/22/2024 10:30	Effluent Grab	Pesticides	Atrazine	2.2	ng/L	0.22	1.1
4/22/2024 10:30	Effluent Grab	Pesticides	Atrazine Desethyl	1.4 U	ng/L	1.4	7.2
4/22/2024 10:50	Effluent Grab	Pesticides	Atrazine Desethyl	1.5 U	ng/L	1.5	7.4
4/22/2024 10:50	Effluent Grab	Pesticides	Azinphos Methyl	3.4 U	ng/L	3.4	17
4/22/2024 10:30	Effluent Grab	Pesticides	Azinphos Methyl	3.3 U	ng/L	3.3	17
4/22/2024 10:30	Effluent Grab	Pesticides	Azoxystrobin	0.44 U	ng/L	0.44	2.2
4/22/2024 10:50	Effluent Grab	Pesticides	Azoxystrobin	0.46 U	ng/L	0.46	2.3
4/22/2024 10:50	Effluent Grab	Pesticides	Bromacil	7.2	ng/L	0.68	3.4
4/22/2024 10:30	Effluent Grab	Pesticides	Bromacil	6.7	ng/L	0.67	3.3
4/22/2024 10:30	Effluent Grab	Pesticides	Butylate	0.50 U	ng/L	0.50	2.5
4/22/2024 10:50	Effluent Grab	Pesticides	Butylate	0.51 U	ng/L	0.51	2.6
4/22/2024 10:50	Effluent Grab	Pesticides	Caffeine	8.5 U	ng/L	8.5	43
4/22/2024 10:30	Effluent Grab	Pesticides	Caffeine	8.3 U	ng/L	8.3	42
4/22/2024 10:50	Effluent Grab	Pesticides	Carbophenothion	0.57 U	ng/L	0.57	2.8
4/22/2024 10:30	Effluent Grab	Pesticides	Carbophenothion	0.55 U	ng/L	0.55	2.8
4/22/2024 10:50	Effluent Grab	Pesticides	Carfentrazone Ethyl	0.17 U	ng/L	0.17	0.85
4/22/2024 10:30	Effluent Grab	Pesticides	Carfentrazone Ethyl	0.17 U	ng/L	0.17	0.83
4/22/2024 10:50	Effluent Grab	Pesticides	Chlorfenapyr	0.34 U	ng/L	0.34	1.7
4/22/2024 10:30	Effluent Grab	Pesticides	Chlorfenapyr	0.33 U	ng/L	0.33	1.7
4/22/2024 10:50	Effluent Grab	Pesticides	Chlorpyrifos Ethyl	0.34 U	ng/L	0.34	1.7
4/22/2024 10:30	Effluent Grab	Pesticides	Chlorpyrifos Ethyl	0.33 U	ng/L	0.33	1.7
4/22/2024 10:50	Effluent Grab	Pesticides	Chlorpyrifos Methyl	0.11 U	ng/L	0.11	0.57
4/22/2024 10:30	Effluent Grab	Pesticides	Chlorpyrifos Methyl	0.11 U	ng/L	0.11	0.55
4/22/2024 10:50	Effluent Grab	Pesticides	Coumaphos	1.2 U	ng/L	1.2	6.3
4/22/2024 10:30	Effluent Grab	Pesticides	Coumaphos	1.2 U	ng/L	1.2	6.1
4/22/2024 10:30	Effluent Grab	Pesticides	Cyanazine	5.5 U	ng/L	5.5	28
4/22/2024 10:50	Effluent Grab	Pesticides	Cyanazine	5.7 U	ng/L	5.7	28
4/22/2024 10:50	Effluent Grab	Pesticides	Cyprodinil	0.23 U	ng/L	0.23	1.1
4/22/2024 10:30	Effluent Grab	Pesticides	Cyprodinil	0.22 U	ng/L	0.22	1.1

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
4/22/2024 10:30	Effluent Grab	Pesticides	Demeton	3.9 U	ng/L	3.9	19
4/22/2024 10:50	Effluent Grab	Pesticides	Demeton	4.0 U	ng/L	4.0	20
4/22/2024 10:50	Effluent Grab	Pesticides	Diazinon	0.14 U	ng/L	0.14	0.71
4/22/2024 10:30	Effluent Grab	Pesticides	Diazinon	0.14 U	ng/L	0.14	0.69
4/22/2024 10:30	Effluent Grab	Pesticides	Difenoconazole	0.67 U	ng/L	0.67	3.3
4/22/2024 10:50	Effluent Grab	Pesticides	Difenoconazole	0.68 U	ng/L	0.68	3.4
4/22/2024 10:30	Effluent Grab	Pesticides	Dimethenamid	0.11 U	ng/L	0.11	0.55
4/22/2024 10:50	Effluent Grab	Pesticides	Dimethenamid	0.11 U	ng/L	0.11	0.57
4/22/2024 10:30	Effluent Grab	Pesticides	Dimethomorph	0.33 U	ng/L	0.33	1.7
4/22/2024 10:50	Effluent Grab	Pesticides	Dimethomorph	0.34 U	ng/L	0.34	1.7
4/22/2024 10:30	Effluent Grab	Pesticides	Disulfoton	0.67 U	ng/L	0.67	3.3
4/22/2024 10:50	Effluent Grab	Pesticides	Disulfoton	0.68 U	ng/L	0.68	3.4
4/22/2024 10:50	Effluent Grab	Pesticides	Dithiopyr	1.1 U	ng/L	1.1	5.7
4/22/2024 10:30	Effluent Grab	Pesticides	Dithiopyr	1.1 U	ng/L	1.1	5.5
4/22/2024 10:30	Effluent Grab	Pesticides	EPTC	0.55 U	ng/L	0.55	2.8
4/22/2024 10:50	Effluent Grab	Pesticides	EPTC	0.57 U	ng/L	0.57	2.8
4/22/2024 10:30	Effluent Grab	Pesticides	Ethion	0.33 U	ng/L	0.33	1.7
4/22/2024 10:50	Effluent Grab	Pesticides	Ethion	0.34 U	ng/L	0.34	1.7
4/22/2024 10:50	Effluent Grab	Pesticides	Ethoprop	0.14 U	ng/L	0.14	0.71
4/22/2024 10:30	Effluent Grab	Pesticides	Ethoprop	0.14 U	ng/L	0.14	0.69
4/22/2024 10:50	Effluent Grab	Pesticides	Etridiazole	0.11 U	ng/L	0.11	0.57
4/22/2024 10:30	Effluent Grab	Pesticides	Etridiazole	0.11 U	ng/L	0.11	0.55
4/22/2024 10:30	Effluent Grab	Pesticides	Fenamiphos	0.50 U	ng/L	0.50	2.5
4/22/2024 10:50	Effluent Grab	Pesticides	Fenamiphos	0.51 U	ng/L	0.51	2.6
4/22/2024 10:50	Effluent Grab	Pesticides	Fenbuconazole	0.57 U	ng/L	0.57	2.8
4/22/2024 10:30	Effluent Grab	Pesticides	Fenbuconazole	0.55 U	ng/L	0.55	2.8
4/22/2024 10:50	Effluent Grab	Pesticides	Fipronil	0.23 U	ng/L	0.23	1.1
4/22/2024 10:30	Effluent Grab	Pesticides	Fipronil	0.22 U	ng/L	0.22	1.1
4/22/2024 10:30	Effluent Grab	Pesticides	Fipronil Desulfinyl	0.11 U	ng/L	0.11	0.55
4/22/2024 10:50	Effluent Grab	Pesticides	Fipronil Desulfinyl	0.11 U	ng/L	0.11	0.57
4/22/2024 10:50	Effluent Grab	Pesticides	Fipronil Sulfide	0.11 U	ng/L	0.11	0.57
4/22/2024 10:30	Effluent Grab	Pesticides	Fipronil Sulfide	0.11 U	ng/L	0.11	0.55
4/22/2024 10:50	Effluent Grab	Pesticides	Fipronil Sulfone	0.11 U	ng/L	0.11	0.57
4/22/2024 10:30	Effluent Grab	Pesticides	Fipronil Sulfone	0.11 U	ng/L	0.11	0.55
4/22/2024 10:30	Effluent Grab	Pesticides	Fluazifop-P-butyl	0.11 U	ng/L	0.11	0.55
4/22/2024 10:50	Effluent Grab	Pesticides	Fluazifop-P-butyl	0.11 U	ng/L	0.11	0.57

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
4/22/2024 10:30	Effluent Grab	Pesticides	Fludioxonil	0.11 U	ng/L	0.11	0.55
4/22/2024 10:50	Effluent Grab	Pesticides	Fludioxonil	0.11 U	ng/L	0.11	0.57
4/22/2024 10:30	Effluent Grab	Pesticides	Flumioxazin	3.3 U	ng/L	3.3	17
4/22/2024 10:50	Effluent Grab	Pesticides	Flumioxazin	3.4 U	ng/L	3.4	17
4/22/2024 10:30	Effluent Grab	Pesticides	Flutolanil	0.11 U	ng/L	0.11	0.55
4/22/2024 10:50	Effluent Grab	Pesticides	Flutolanil	0.11 U	ng/L	0.11	0.57
4/22/2024 10:30	Effluent Grab	Pesticides	Fluxapyroxad	0.28 U	ng/L	0.28	1.4
4/22/2024 10:50	Effluent Grab	Pesticides	Fluxapyroxad	0.28 U	ng/L	0.28	1.4
4/22/2024 10:50	Effluent Grab	Pesticides	Fonofos	0.17 U	ng/L	0.17	0.85
4/22/2024 10:30	Effluent Grab	Pesticides	Fonofos	0.17 U	ng/L	0.17	0.83
4/22/2024 10:50	Effluent Grab	Pesticides	Hexazinone	0.57 U	ng/L	0.57	2.8
4/22/2024 10:30	Effluent Grab	Pesticides	Hexazinone	0.55 U	ng/L	0.55	2.8
4/22/2024 10:50	Effluent Grab	Pesticides	Imazalil	0.74 U	ng/L	0.74	3.7
4/22/2024 10:30	Effluent Grab	Pesticides	Imazalil	0.72 U	ng/L	0.72	3.6
4/22/2024 10:30	Effluent Grab	Pesticides	Iprodione	0.55 U	ng/L	0.55	2.8
4/22/2024 10:50	Effluent Grab	Pesticides	Iprodione	0.57 U	ng/L	0.57	2.8
4/22/2024 10:50	Effluent Grab	Pesticides	Loratadine	0.34 U	ng/L	0.34	1.7
4/22/2024 10:30	Effluent Grab	Pesticides	Loratadine	0.33 U	ng/L	0.33	1.7
4/22/2024 10:50	Effluent Grab	Pesticides	Malathion	0.40 U	ng/L	0.40	2.0
4/22/2024 10:30	Effluent Grab	Pesticides	Malathion	0.39 U	ng/L	0.39	1.9
4/22/2024 10:30	Effluent Grab	Pesticides	Metalaxyl	0.55 U	ng/L	0.55	2.8
4/22/2024 10:50	Effluent Grab	Pesticides	Metalaxyl	0.57 U	ng/L	0.57	2.8
4/22/2024 10:30	Effluent Grab	Pesticides	Metolachlor	0.83 U	ng/L	0.83	4.2
4/22/2024 10:50	Effluent Grab	Pesticides	Metolachlor	0.85 U	ng/L	0.85	4.3
4/22/2024 10:30	Effluent Grab	Pesticides	Metribuzin	0.44 U	ng/L	0.44	2.2
4/22/2024 10:50	Effluent Grab	Pesticides	Metribuzin	0.46 U	ng/L	0.46	2.3
4/22/2024 10:30	Effluent Grab	Pesticides	Mevinphos	1.1 U	ng/L	1.1	5.5
4/22/2024 10:50	Effluent Grab	Pesticides	Mevinphos	1.1 U	ng/L	1.1	5.7
4/22/2024 10:50	Effluent Grab	Pesticides	Molinate	0.28 U	ng/L	0.28	1.4
4/22/2024 10:30	Effluent Grab	Pesticides	Molinate	0.28 U	ng/L	0.28	1.4
4/22/2024 10:30	Effluent Grab	Pesticides	Myclobutanil	0.39 U	ng/L	0.39	1.9
4/22/2024 10:50	Effluent Grab	Pesticides	Myclobutanil	0.40 U	ng/L	0.40	2.0
4/22/2024 10:30	Effluent Grab	Pesticides	Naled	2.8 U	ng/L	2.8	14
4/22/2024 10:50	Effluent Grab	Pesticides	Naled	2.8 U	ng/L	2.8	14
4/22/2024 10:30	Effluent Grab	Pesticides	Napropamide	0.78 U	ng/L	0.78	3.9
4/22/2024 10:50	Effluent Grab	Pesticides	Napropamide	0.80 U	ng/L	0.80	4.0

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
4/22/2024 10:50	Effluent Grab	Pesticides	Norflurazon	1.1 U	ng/L	1.1	5.7
4/22/2024 10:30	Effluent Grab	Pesticides	Norflurazon	1.1 U	ng/L	1.1	5.5
4/22/2024 10:30	Effluent Grab	Pesticides	Oxadiazon	0.39 U	ng/L	0.39	1.9
4/22/2024 10:50	Effluent Grab	Pesticides	Oxadiazon	0.40 U	ng/L	0.40	2.0
4/22/2024 10:30	Effluent Grab	Pesticides	Oxyfluorfen	0.22 U	ng/L	0.22	1.1
4/22/2024 10:50	Effluent Grab	Pesticides	Oxyfluorfen	0.23 U	ng/L	0.23	1.1
4/22/2024 10:50	Effluent Grab	Pesticides	Parathion Ethyl	0.17 U	ng/L	0.17	0.85
4/22/2024 10:30	Effluent Grab	Pesticides	Parathion Ethyl	0.17 U	ng/L	0.17	0.83
4/22/2024 10:30	Effluent Grab	Pesticides	Parathion Methyl	0.22 U	ng/L	0.22	1.1
4/22/2024 10:50	Effluent Grab	Pesticides	Parathion Methyl	0.23 U	ng/L	0.23	1.1
4/22/2024 10:50	Effluent Grab	Pesticides	Pendimethalin	1.9 U	ng/L	1.9	9.7
4/22/2024 10:30	Effluent Grab	Pesticides	Pendimethalin	1.9 U	ng/L	1.9	9.4
4/22/2024 10:50	Effluent Grab	Pesticides	Phenytoin	6.0 U	ng/L	6.0	30
4/22/2024 10:30	Effluent Grab	Pesticides	Phenytoin	5.9 U	ng/L	5.9	29
4/22/2024 10:30	Effluent Grab	Pesticides	Phorate	0.28 U	ng/L	0.28	1.4
4/22/2024 10:50	Effluent Grab	Pesticides	Phorate	0.28 U	ng/L	0.28	1.4
4/22/2024 10:30	Effluent Grab	Pesticides	Prodiamine	0.22 U	ng/L	0.22	1.1
4/22/2024 10:50	Effluent Grab	Pesticides	Prodiamine	0.23 U	ng/L	0.23	1.1
4/22/2024 10:50	Effluent Grab	Pesticides	Prometon	3.4 U	ng/L	3.4	17
4/22/2024 10:30	Effluent Grab	Pesticides	Prometon	3.3 U	ng/L	3.3	17
4/22/2024 10:50	Effluent Grab	Pesticides	Prometryn	0.40 U	ng/L	0.40	2.0
4/22/2024 10:30	Effluent Grab	Pesticides	Prometryn	0.39 U	ng/L	0.39	1.9
4/22/2024 10:30	Effluent Grab	Pesticides	Pronamide	0.11 U	ng/L	0.11	0.55
4/22/2024 10:50	Effluent Grab	Pesticides	Pronamide	0.11 U	ng/L	0.11	0.57
4/22/2024 10:50	Effluent Grab	Pesticides	Propanil	0.11 U	ng/L	0.11	0.57
4/22/2024 10:30	Effluent Grab	Pesticides	Propanil	0.11 U	ng/L	0.11	0.55
4/22/2024 10:50	Effluent Grab	Pesticides	Propargite	0.91 U	ng/L	0.91	4.6
4/22/2024 10:30	Effluent Grab	Pesticides	Propargite	0.89 U	ng/L	0.89	4.4
4/22/2024 10:30	Effluent Grab	Pesticides	Propiconazole	0.67 U	ng/L	0.67	3.3
4/22/2024 10:50	Effluent Grab	Pesticides	Propiconazole	0.68 U	ng/L	0.68	3.4
4/22/2024 10:30	Effluent Grab	Pesticides	Pyraflufen Ethyl	0.33 U	ng/L	0.33	1.7
4/22/2024 10:50	Effluent Grab	Pesticides	Pyraflufen Ethyl	0.34 U	ng/L	0.34	1.7
4/22/2024 10:30	Effluent Grab	Pesticides	Pyridaben	1.6 U	ng/L	1.6	7.8
4/22/2024 10:50	Effluent Grab	Pesticides	Pyridaben	1.6 U	ng/L	1.6	8.0
4/22/2024 10:30	Effluent Grab	Pesticides	Pyriproxyfen	0.28 U	ng/L	0.28	1.8
4/22/2024 10:50	Effluent Grab	Pesticides	Pyriproxyfen	0.28 U	ng/L	0.28	1.8

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
4/22/2024 10:50	Effluent Grab	Pesticides	Simazine	0.28 U	ng/L	0.28	1.4
4/22/2024 10:30	Effluent Grab	Pesticides	Simazine	0.28 U	ng/L	0.28	1.4
4/22/2024 10:30	Effluent Grab	Pesticides	Stirophos	0.44 U	ng/L	0.44	3.5
4/22/2024 10:50	Effluent Grab	Pesticides	Stirophos	0.46 U	ng/L	0.46	3.6
4/22/2024 10:30	Effluent Grab	Pesticides	Sulfentrazone	1.6 U	ng/L	1.6	7.8
4/22/2024 10:50	Effluent Grab	Pesticides	Sulfentrazone	1.6 U	ng/L	1.6	8.0
4/22/2024 10:50	Effluent Grab	Pesticides	Tebuconazole	1.6 U	ng/L	1.6	8.0
4/22/2024 10:30	Effluent Grab	Pesticides	Tebuconazole	1.6 U	ng/L	1.6	7.8
4/22/2024 10:50	Effluent Grab	Pesticides	Terbufos	0.23 U	ng/L	0.23	1.1
4/22/2024 10:30	Effluent Grab	Pesticides	Terbufos	0.22 U	ng/L	0.22	1.1
4/22/2024 10:50	Effluent Grab	Pesticides	Terbuthylazine	0.23 U	ng/L	0.23	1.1
4/22/2024 10:30	Effluent Grab	Pesticides	Terbuthylazine	0.22 U	ng/L	0.22	1.1
4/22/2024 10:50	Effluent Grab	Pesticides	Thiobencarb	0.57 U	ng/L	0.57	2.8
4/22/2024 10:30	Effluent Grab	Pesticides	Thiobencarb	0.55 U	ng/L	0.55	2.8
4/22/2024 10:50	Effluent Grab	Pesticides	Triadimefon	0.17 U	ng/L	0.17	0.85
4/22/2024 10:30	Effluent Grab	Pesticides	Triadimefon	0.17 U	ng/L	0.17	0.83
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.054 U	µg/L	0.054	0.22
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.054 U	µg/L	0.054	0.22
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.054 U	µg/L	0.054	0.22
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.054 U	µg/L	0.054	0.22
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	2,4-Dichlorophenol	0.054 U	µg/L	0.054	0.22
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	2,4-Dichlorophenol	0.054 U	µg/L	0.054	0.22
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	2,4-Dimethylphenol	0.054 UJ	µg/L	0.054	0.22
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	2,4-Dimethylphenol	0.054 UJ	µg/L	0.054	0.22
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	2,4-Dinitrophenol	11 U	µg/L	11	43
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	2,4-Dinitrophenol	11 U	µg/L	11	43
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	2,4-Dinitrotoluene	0.054 U	µg/L	0.054	0.22
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	2,4-Dinitrotoluene	0.054 U	µg/L	0.054	0.22
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	2,6-Dinitrotoluene	0.054 U	µg/L	0.054	0.22
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	2,6-Dinitrotoluene	0.054 U	µg/L	0.054	0.22
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	2-Chloronaphthalene	0.054 U	µg/L	0.054	0.22
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	2-Chloronaphthalene	0.054 U	µg/L	0.054	0.22
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	2-Chlorophenol	0.054 U	µg/L	0.054	0.22
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	2-Chlorophenol	0.054 U	µg/L	0.054	0.22
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	3.3 U	µg/L	3.3	13
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	3.3 U	µg/L	3.3	13

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	2-Nitrophenol	0.054 U	µg/L	0.054	0.22
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	2-Nitrophenol	0.054 U	µg/L	0.054	0.22
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	3,3'-Dichlorobenzidine	11 U	µg/L	11	43
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	3,3'-Dichlorobenzidine	11 U	µg/L	11	43
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.054 U	µg/L	0.054	0.22
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.054 U	µg/L	0.054	0.22
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.054 UJ	µg/L	0.054	0.22
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.054 UJ	µg/L	0.054	0.22
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	0.054 U	µg/L	0.054	0.22
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	0.054 U	µg/L	0.054	0.22
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	4-Nitrophenol	11 U	µg/L	11	43
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	4-Nitrophenol	11 U	µg/L	11	43
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	Acenaphthene	0.027 U	µg/L	0.027	0.11
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	Acenaphthene	0.027 U	µg/L	0.027	0.11
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	Acenaphthylene	0.027 U	µg/L	0.027	0.11
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	Acenaphthylene	0.027 U	µg/L	0.027	0.11
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	Anthracene	0.054 U	µg/L	0.054	0.22
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	Anthracene	0.054 U	µg/L	0.054	0.22
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	Benzidine	11 U	µg/L	11	43
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	Benzidine	11 U	µg/L	11	43
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	Benzo(a)anthracene	0.027 U	µg/L	0.027	0.11
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	Benzo(a)anthracene	0.027 U	µg/L	0.027	0.11
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	Benzo(a)pyrene	0.027 U	µg/L	0.027	0.11
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	Benzo(a)pyrene	0.027 U	µg/L	0.027	0.11
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	Benzo(b)fluoranthene	0.027 U	µg/L	0.027	0.11
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	Benzo(b)fluoranthene	0.027 U	µg/L	0.027	0.11
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.027 U	µg/L	0.027	0.11
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.027 U	µg/L	0.027	0.11
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	Benzo(k)fluoranthene	0.027 U	µg/L	0.027	0.11
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	Benzo(k)fluoranthene	0.027 U	µg/L	0.027	0.11
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.054 U	µg/L	0.054	0.22
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.054 U	µg/L	0.054	0.22
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.054 U	µg/L	0.054	0.22
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.054 U	µg/L	0.054	0.22
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	0.054 U	µg/L	0.054	0.22
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	0.054 U	µg/L	0.054	0.22

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	5.4 U	µg/L	5.4	22
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	5.4 U	µg/L	5.4	22
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	Butyl benzyl phthalate	1.1 U	µg/L	1.1	4.3
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	Butyl benzyl phthalate	1.1 U	µg/L	1.1	4.3
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	Chrysene	0.027 U	µg/L	0.027	0.11
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	Chrysene	0.027 U	µg/L	0.027	0.11
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.027 U	µg/L	0.027	0.11
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.027 U	µg/L	0.027	0.11
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	Diethyl phthalate	2.2 U	µg/L	2.2	8.7
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	Diethyl phthalate	2.2 U	µg/L	2.2	8.7
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	Dimethyl phthalate	0.22 U	µg/L	0.22	0.87
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	Dimethyl phthalate	0.22 U	µg/L	0.22	0.87
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	Di-n-butyl phthalate	2.2 U	µg/L	2.2	8.7
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	Di-n-butyl phthalate	2.2 U	µg/L	2.2	8.7
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	Di-n-octyl phthalate	0.054 U	µg/L	0.054	0.22
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	Di-n-octyl phthalate	0.054 U	µg/L	0.054	0.22
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	Fluoranthene	0.054 U	µg/L	0.054	0.22
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	Fluoranthene	0.054 U	µg/L	0.054	0.22
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	Fluorene	0.027 U	µg/L	0.027	0.11
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	Fluorene	0.027 U	µg/L	0.027	0.11
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	Hexachlorobenzene	0.054 UJ	µg/L	0.054	0.22
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	Hexachlorobenzene	0.054 UJ	µg/L	0.054	0.22
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	Hexachlorobutadiene	0.054 U	µg/L	0.054	0.22
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	Hexachlorobutadiene	0.054 U	µg/L	0.054	0.22
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	Hexachlorocyclopentadiene	0.054 U	µg/L	0.054	0.22
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	Hexachlorocyclopentadiene	0.054 U	µg/L	0.054	0.22
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	Hexachloroethane	0.054 U	µg/L	0.054	0.22
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	Hexachloroethane	0.054 U	µg/L	0.054	0.22
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.027 U	µg/L	0.027	0.11
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.027 U	µg/L	0.027	0.11
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	Isophorone	0.054 U	µg/L	0.054	0.22
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	Isophorone	0.054 U	µg/L	0.054	0.22
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	Naphthalene	0.11 U	µg/L	0.11	0.43
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	Naphthalene	0.11 U	µg/L	0.11	0.43
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	Nitrobenzene	0.054 U	µg/L	0.054	0.22
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	Nitrobenzene	0.054 U	µg/L	0.054	0.22

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	N-Nitrosodimethylamine	2.2 U	µg/L	2.2	8.7
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	N-Nitrosodimethylamine	2.2 U	µg/L	2.2	8.7
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	0.054 U	µg/L	0.054	0.22
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	0.054 U	µg/L	0.054	0.22
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	Pentachlorophenol	0.54 U	µg/L	0.54	2.2
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	Pentachlorophenol	0.54 U	µg/L	0.54	2.2
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	Phenanthrene	0.11 U	µg/L	0.11	0.43
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	Phenanthrene	0.11 U	µg/L	0.11	0.43
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	Phenol	0.054 U	µg/L	0.054	0.22
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	Phenol	0.054 U	µg/L	0.054	0.22
4/22/2024 10:50	Effluent Grab	Priority Organic Pollutants	Pyrene	0.11 U	µg/L	0.11	0.43
4/22/2024 10:30	Effluent Grab	Priority Organic Pollutants	Pyrene	0.11 U	µg/L	0.11	0.43