Effluent Quality Assessment of Hastings WWTF St. Johns County NPDES # FL0042315 Sampled April 13 & 14, 2025

Division of Environmental Assessment and Restoration
Florida Department of Environmental Protection
June 2025

DEP Laboratory, Biology Program
2600 Blair Stone Road, MS 6515
Tallahassee, FL 32399-2400
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Contents

Summary of Results 3
Facility Overview 3
Methods 3
Results 6
Literature Cited 8
Appendix A. Explanations of Measurements 14
Appendix B. Chain of Custody 16
Appendix C. Chemical Analysis of Effluent 19

List of Tables

Table 1. Measured field parameters 9
Table 2. Analytical water chemistry, microbiological, and toxicological data 10
Table 3. Analytical metals data 11
Table 4. Algal Growth Potential (AGP) 12
Table 5. Detected Organic Constituents 13

List of Figures

Figure 1. Map of Facility and Discharge Location 5

Summary of Results

All analytes measured in the effluent samples complied with effluent permit limits and Class III Water Quality Criteria for Fresh Waters. Algal growth potential (AGP) and nutrient results suggest that there is potential for nutrient enrichment in the receiving waters due to effluent discharge. There were seven organic constituents detected in the effluent grab sample.

Facility Overview

The Hastings WWTF Facility is a domestic wastewater treatment facility. The permit can be found in the DEP OCULUS, Document Management System. To access the permit directly, use this link and click the "Public OCULUS Login" button in the center of the webpage https://depedms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity&[guid=38.1094494.1]&[profile=Permitting_Authorization].

The effluent is continuously discharged into Cracker Branch, [waterbody identification (WBID) 2555], then to Deep Creek (WBID 2549), and ultimately to the Lower St. Johns River (WBID 213K), all Class III Fresh Waters (Figure 1). The lower St. Johns River falls within the Peninsular Nutrient Watershed Region for Numeric Nutrient Criteria (NNC). For this region, the NNC, expressed as annual geometric means, are 0.12 mg/L total phosphorus and 1.54 mg/L total nitrogen (Paragraph 62-302.531(2)(c), F.A.C.). The lower St. Johns River 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 fifth-year inspection (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 8-hour flow-proportioned composite and grab samples were collected from monitoring site location EFD-2, for outfall D-001 on April 13 and 14, 2025.

Samples were collected by Conor Lucey and Angelina Ortiz (Northeast District). Analyses were performed by Eurofins in Jacksonville, Pensacola, and Orlando, Eurofins Eaton Analytical, Inc. in South Bend, Indiana, and 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.

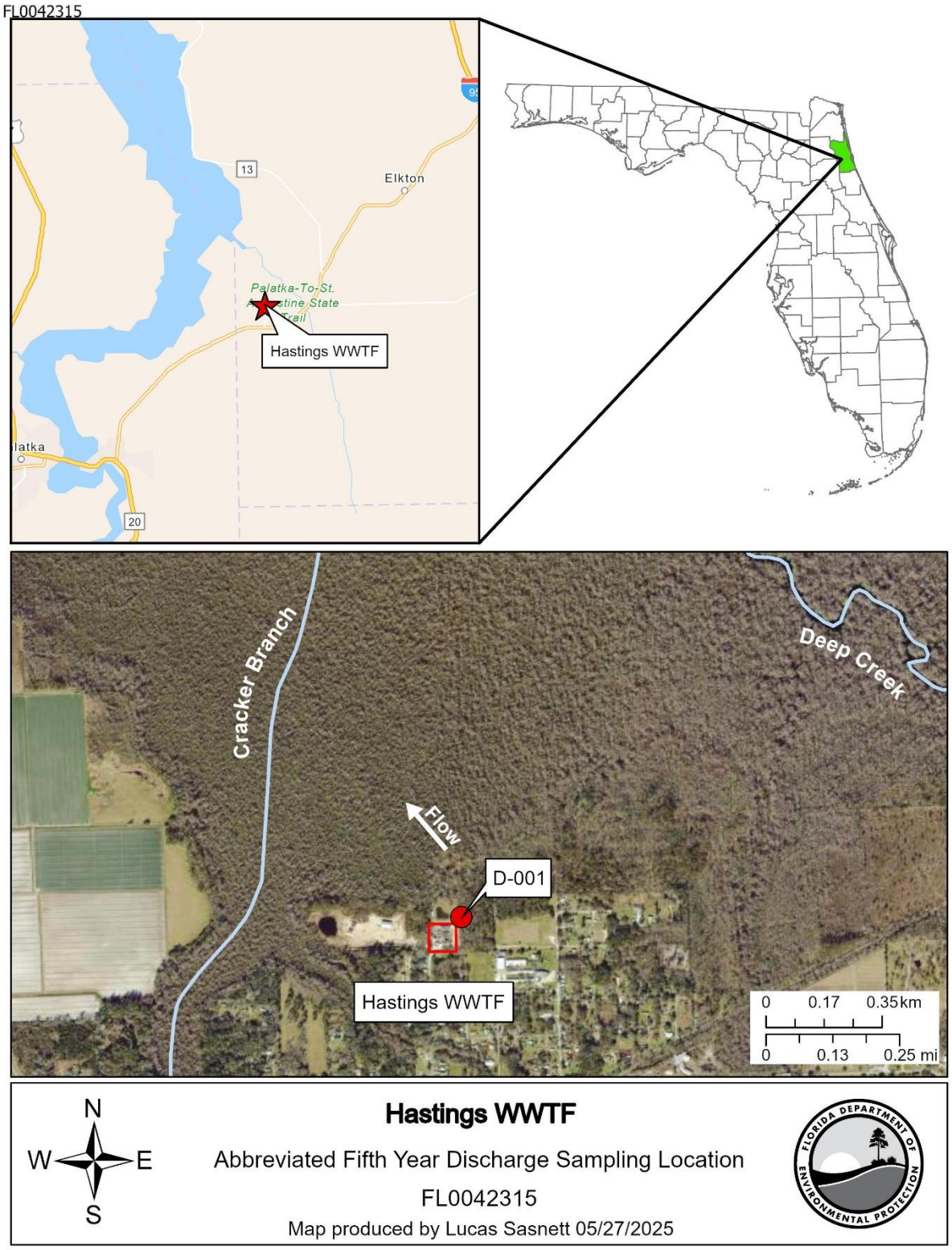


Figure 1. Map of Facility and Discharge Location

Results

Physical and Chemical Parameters (See Table 1 and Appendices B & C)

- Total Residual Chlorine compliance could not be determined because the minimum detection level of the meter was above the effluent permit limit.

- All other effluent water quality parameters complied with Class III Water Quality Criteria for Fresh Waters and EFD-2 effluent permit limits.

Analytical Water Chemistry (See Table 2 and Appendix C)

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

- Total nitrogen for the effluent composite sample complied with the permit limit. For comparative purposes only, total phosphorus and total nitrogen in the effluent composite and effluent grab samples were greater than the annual geometric mean limit for NNC in the Peninsular Nutrient Watershed Region.

Microbiology (See Table 2 and Appendix A)

- Effluent fecal coliform levels complied with the effluent permit limit.

- For the effluent grab sample, enterococci was incorrectly requested at the lab instead of *Escherichia coli (E. coli)*, as scheduled. The effluent permit limit is for *E. coli*. The enterococci result was J-qualified due to spike recovery or RPD outside of criteria.

Toxicity Whole Effluent Test (See Table 2)

- Tests were performed April 15 through April 19, 2025.

- The sample was aerated for 5 minutes at a rate of approximately 100 bubbles per minute to decrease the dissolved oxygen (DO) from 9.2 mg/L to 8.6 mg/L.

- Acute bioassay results are reported as the Concentration Lethal to 50% of the test organisms (LC50).

- For the 96-hour acute definitive test, the calculated LC50 for the water flea, *Ceriodaphnia dubia*, was >100% effluent with 5% mortality in 100% sample. The calculated LC50 for the fish, *Cyprinella leedsi*, was >100% effluent with 0% mortality in 100% sample. The effluent sample was not toxic to either test species, during the 96-hour acute definitive bioassays and therefore, complied with effluent permit limits.

- For more information or to obtain copies of the toxicity bench sheets, please contact the Biology Laboratory at 850-245-8177.

Metals (See Table 3 and Appendix C)

- Effluent metals complied with Class III Water Quality Criteria for Fresh Waters and effluent permit limits.

Algal Growth Potential (See Table 4 and Appendix A)

- The effluent grab sample AGP was 13.07 mg dry wt/L of the freshwater unicellular green alga, *Raphidocelis subcapitata*. The effluent AGP is within therange (6.10 to 20.0 mg dry wt/L) suggested to be representative of high productivity for freshwater (Miller et al. 1978).

- The analytical chemistry suggests that the effluent is nitrogen-limited (Miller et al. 1978). Comparing the measured and predicted AGP results, an inference can be made that not all the nutrients in the effluent were bio-available to the test species. To determine actual nutrient limitation, a limiting-nutrient algal growth potential test would need to be performed. Another possible explanation is the presence of toxicants can inhibit or prevent algal growth even when nutrients are not growth-limiting (Miller et al. 1978).

Organic Constituents (See Table 5 and Appendix C)

- Atrazine (herbicide), azoxystrobin (fungicide), fipronil desulfinyl (insecticide), fipronil sulfide (insecticide), metolachlor (herbicide), simazine (herbicide), and tebuconazole (fungicide) were detected in the effluent grab sample.

- Azoxystrobin was J-qualified due to internal standard recovery exceeding control limits.

Literature Cited

Miller, W. E., Maloney, T. E. and Greene, J. C. 1978. The *Selenastrum capricornutum* Printz algal assay bottle test. EPA600/978-018. U. S. EPA, Cincinnati, Ohio. 126 p.

Raschke, R.L. and Schultz, D.A. 1987. The use of the algal growth potential test for data assessment. Journal Water Pollution Control Federation.

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.

USEPA. 1971. Algal Assay Procedure: Bottle Test. EPA950R71094 U. S. EPA, Corvallis, Oregon, 82 p.

USEPA. 1974. Marine Algal Assay Procedure: Bottle Test. EPA660375008 U. S. EPA, Corvallis, Oregon. 43 p.

USEPA. 2000. Nutrient Criteria Technical Guidance Manual – River and Streams. EPA-822-B-00-002.

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	EFD-2
Temperature	C	-	Report	24
pH	SU	6.0 - 8.5	6.0 - 8.5	6.9
Specific Conductance	µmhos/cm	≤ 1,275	-	579
Salinity	ppt	-	-	0.3 c
Dissolved Oxygen	% saturation	≥ 38	-	90.3
Dissolved Oxygen	mg/L	-	≥ 5.0	7.6
Total Residual Chlorine	mg/L	-	≤ 0.01 s	0.02 U

A dash (-) indicates sample/measurement was not collected or criterion/limit does not exist.
c - Value is calculated.
s - Single sample
U - Material analyzed for but not detected; value reported is the method detection limit.

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 Composite	Effluent Grab
Ortho-phosphate	mg P/L	-	Report	-	2.4
Total Phosphorus	mg P/L	≤ 0.12 g	Report	2.4	2.5
Total Ammonia Nitrogen	mg N/L	≤ 3.75 sc	≤ 3.75 sc	0.069	0.058
Un-ionized Ammonia (calc salinity)	mg N/L	-	-	-	< 0.02 c
Nitrate and Nitrite	mg N/L	-	Report	1.6	1.7
Total Kjeldahl Nitrogen	mg N/L	-	Report	0.92	0.75
Organic Nitrogen	mg N/L	-	Report	0.85 c	0.69 c
Total Nitrogen	mg N/L	≤ 1.54 g	≤ 9.0 sp	2.5 c	2.5 c
Total Organic Carbon	mg C/L	-	-	-	6.8
Chlorophyll *a* - Corrected	µg/L	-	-	-	0.52 U
Phaeophytin	µg/L	-	-	-	0.63 U
CBOD, 5 day, N - inhibited	mg/L	-	≤ 10.0 sp	2.0 U	-
Total Suspended Solids	mg/L	-	≤ 60.0 sp	2 I	-
Turbidity	NTU	≤ 29 t	-	-	0.90 I
Color (true)	PCU	-	-	-	5.1 I
Alkalinity	mg CaCO3/L	≥ 20	-	-	54 A
Chloride	mg Cl/L	-	-	-	95 A
Fluoride	mg F/L	≤ 10.0	-	-	0.072 I
Sulfate	mg SO4/L	-	-	-	73 A
Fecal Coliforms	MPN/100 mL	-	≤ 800 s	-	1.00 U
E. coli	MPN/100 mL	≤ 410	≤ 410	-	-
Enterococci	MPN/100 mL	-	-	-	20.0 J
Bioassay - Water flea *(C. dubia)*	% effluent	-	≥ 100 s	-	≥ 100
Bioassay - Fish *(C. leedsi)*	% effluent	-	≥ 100 s	-	≥ 100

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.

p - 8 hour flow-proportioned composite

s - Single sample

t - Shall not exceed 29 NTUs above background.

A - Value reported is the mean of two or more determinations.

I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

J - Estimated value and/or the analysis did not meet established quality control criteria.

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	Class III Criteria	Effluent Permit Limits	Effluent Grab
Hardness	mg CaCO3/L	-	-	91.9 c
Aluminum	µg/L	-	-	6.5 I
Arsenic	µg/L	≤ 50	-	0.49
Cadmium	µg/L	≤ 0.254 b	-	0.020 U
Calcium	mg/L	-	-	26.9
Chromium, Total [1]	µg/L	≤ 80.4 b	-	0.43 I
Copper	µg/L	≤ 8.68 b	-	1.83
Iron	µg/L	≤ 1,000	-	41 I
Lead	µg/L	≤ 2.86 b	-	0.20 U
Magnesium	mg/L	-	-	6.01
Mercury	ng/L	≤ 12	≤ 12 s	0.6
Nickel	µg/L	≤ 48.6 b	-	1.6 I
Potassium	mg/L	-	-	11.1
Selenium	µg/L	≤ 5.0	-	0.2 I
Silver	µg/L	≤ 0.07	-	0.01 U
Sodium	mg/L	-	-	77.7
Zinc	µg/L	≤ 112 b	-	62

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

b - Value is calculated based on hardness.

s - Single sample

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.

Table 4. Algal Growth Potential (AGP)

Measured and predicted algal growth potential (AGP; mg dry weight/L) for total soluble inorganic nitrogen (TSIN), ortho-phosphate (OP), total nitrogen (TN) and total phosphorus (TP) limitation and ratios of nitrogen to phosphorus

Location	Test Species	AGP (measured)	Predicted AGP (TSIN) ± 20%	Predicted AGP (OP) ± 20%	Predicted AGP (TN) ± 20%	Predicted AGP (TP) ± 20%	Inorganic N:P ratio	Total N:P ratio
Effluent Grab	*Raphidocelis subcapitata*	13.1 QA	67 ± 13	1,000 ± 200	93 ± 19	1,100 ± 220	0.7	1.0

A - Value reported is the mean of two or more determinations.
Q - Sample held beyond normal holding time.

Table 5. 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	-	-	10
Azoxystrobin	ng/L	-	-	6.1 J
Fipronil Desulfinyl	ng/L	-	-	0.12 I
Fipronil Sulfide	ng/L	-	-	0.40 I
Metolachlor	ng/L	-	-	2.1 I
Simazine	ng/L	-	-	1.3
Tebuconazole	ng/L	-	-	1.9 I

I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J - Estimated value and/or the analysis did not meet established quality control criteria.

Appendix A. 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..

- **Toxicity Bioassays**

  Greater than 50% mortality in an acute toxicity test may constitute an exceedance of Paragraph 62-302.500(1)(a) and/or facility permit limits. A 25% inhibition concentration (IC25) is the effluent concentration causing a 25% reduction in a biological response such as biomass or reproduction when compared to a control population. An IC25 of less than 100% in a chronic test may constitute exceedances of Subsection 62-302.530(20), Subsection 62-302.530(62) and/or facility permit limits. A no observed effect concentration (NOEC) less than 100% effluent in a chronic test may constitute an exceedance of Subsection 62-302.530(62) and/or facility permit limits. Standard reference toxicant (SRT) tests are conducted monthly to ensure quality in toxicity testing.

- **Bacteriological Testing**

  High levels of fecal indicator bacteria may constitute an exceedance of Subsection 62-302.530(6) and/or facility permit limits. *Escherichia coli* results are based on Most Probable Number (MPN) and shall not exceed 410 in 10% or more of the samples during any 30-day period (62-302.530(6)(b), F.A.C.). *Enterococci* results are based on Most Probable Number (MPN) and shall not exceed 130 in 10% or more of the samples during any 30-day period (62-302.530(6)(c), F.A.C.). If fewer than 10 samples are taken within a month for a given location, the Ten Percent Threshold Value (TPTV) is assessed as a single sample maximum.

- **Algal Growth Potential (AGP)**

  Algal growth potential (AGP) is a measure of nutrients available for algal growth (Miller et al. 1978; USEPA 1974). AGP value is the peak growth of the alga within that 14-day period, recorded as mg dry weight/L. The protocol for marine waters (USEPA 1974) refers to the original 1971 Bottle Test procedure (USEPA 1971) for analysis interpretation. The 1971 Bottle Test was updated in 1978 (Miller et al. 1978). AGP results within the range 6.10 to

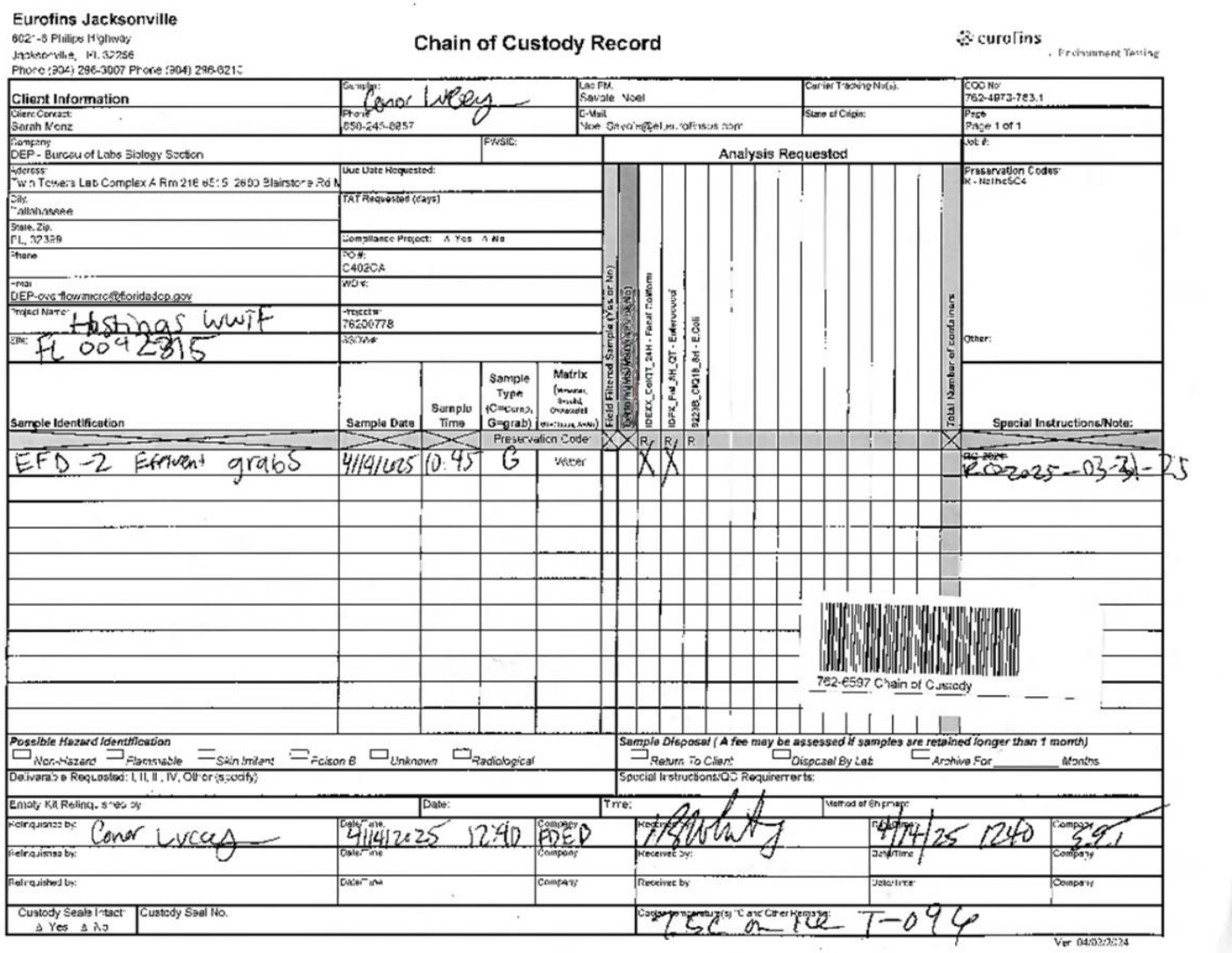
20.0 mg dry wt/L are suggested to be representative of high productivity for freshwaters (Miller et al. 1978). AGP values above 10.0 mg dry weight/L represent a "problem" threshold for marine receiving waters, implying nutrient enrichment (Raschke and Schultz 1987, personal communication). High AGP values may 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.

The concentration of nutrients in a water sample may be used to calculate the expected yield of AGP under the assumption that other required nutrients (e.g. silicon, micronutrients) are present in excess (Miller *et al*. 1978). The expected amount of production is calculated as 38 times the total soluble inorganic nitrogen (nitrate and nitrite plus ammonia) under nitrogen limitation or 430 times the ortho-phosphate (OP) concentration under phosphorus limitation with an error of ± 20%. When the ratio of nitrogen to phosphorus (N: P) is less than 10:1, nitrogen limitation of algal production is likely. When the N: P ratio is 20:1 or greater, phosphorus limitation is likely (USEPA 2000). For ratios in-between, co-limitation may occur. Production of lower biomass than expected may be evidence of growth inhibition related to toxic compounds present in the water sample tested and may constitute an exceedance of Subsection 62-302.530(62), 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 and/or the analysis did not meet established quality control criteria.
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 B. Chain of Custody



Eurofins Jacksonville
6021-5 Philips Highway
Jacksonville, FL 32256
Phone (904) 296-3007 Phone (904) 296-6210

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: Conor Lucey	Lab PM: Savale, Noel	Carrier Tracking No(s):	COC No: 762-4873-783.1
Client Contact: Sarah Menz	Phone: 850-245-8857	E-Mail: Noel.Savale@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: DEP - Bureau of Labs Biology Section	PWSID:	Analysis Requested		Job #:
Address: Twin Towers Lab Complex A Rm 216 6515 2600 Blairstone Rd N	Due Date Requested:			Preservation Codes: K - NaHeSC4
City: Tallahassee	TAT Requested (days):			
State, Zip: FL, 32399	Compliance Project: ☐ Yes ☐ No			
Phone:	PO #: C402CA			
Email: DEP-ovs.flowmicro@floridadep.gov	WO #:			Other:
Project Name: Hastings WWTF	Project #: 76206778			
Site: FL 0042315	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (w=water, s=solid, o=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	IDEXX_ColiQT_24H - Fecal Coliform	IDPX_Fld_SH_QT - Enterococci	9223B_CP21B_SH - E.Coli	Total Number of containers	Special Instructions/Note:
			Preservation Code:				R	R	R		
EFD-2 Effluent grabs	4/14/2025	10:45	G	Water			X	X			RQ2025-03-31-25

762-6597 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinq. shed by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
Conor Lucey	4/14/2025 1240	FDEP		4/14/25 1240	ESC
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:
		T-094

Ver: 04/02/2024

Page 15 of 16

4/28/2025

Request Number: RQ-2025-03-31-25

FYI3 NED Hastings WWTF (FL0042315)

Customer: NE-DIST

Project ID: FYI3

Florida Department of Environmental Protection

Central Laboratory Submittal Form

Page 1 of 4

last revised Jan 25, 2018

Requester: Benjamin Nomann

Field Report Prepared By: Conar Lucy

Collected By: Angelina Ortiz

Sampling Agency: FDEP NED

Location: Bottle Group A - Grab Hasting WWTF (FL0042315) EFD-2 29.72571077 x -81.50806734

Field ID:

WIN/STORET #:

Latitude: ☐ dd ☐ dms

Longitude: ☐ dd ☐ dms

☐ Comp ☒ Grab | Collection (comp begin or grab) Date 4/14/2025 Time 10:45 | Eastern / Central | Composite end Date Time | Bottle Group(s) (See pg 2): A

Matrix (type, e.g., Salt, Fresh, etc): GW | Diss. Oxygen 7.59 90.3 ☐ mg/L ☐ % sat | Total Res. Chlorine (mg/L) 0.800

Temp (C) 24.0 C° | pH 6.92 | Sample Depth ☐ ft ☐ m | Sp. Conductance (umho/cm) 579

Salinity (ppt) | Comments: 50.8 GPM

Location: Bottle Group B - Composite Hasting WWTF (FL0042315) EFD-2 29.72571077 x -81.50806734

Field ID:

WIN/STORET #:

Latitude: ☐ dd ☐ dms

Longitude: ☐ dd ☐ dms

☒ Comp ☐ Grab | Collection (comp begin or grab) Date 4/13/2025 Time 6:00am | Eastern / Central | Composite end Date 4/13/2025 Time 2:00pm | Bottle Group(s): B

Matrix (type, e.g., Salt, Fresh, etc) | Diss. Oxygen ☐ mg/L ☐ % sat | Total Res. Chlorine (mg/L)

Temp (C) | pH | Sample Depth ☐ ft ☐ m | Sp. Conductance (umho/cm)

Salinity (ppt) | Comments: Comp manually collected by operator 1 sample every hour for 8 hours

---

Location: Bottle group C - Field blanks Hasting WWTF (fl0042315)

Field ID:

WIN/STORET #:

Latitude: ☐ dd ☐ dms

Longitude: ☐ dd ☐ dms

☐ Comp ☐ Grab | Collection (comp begin or grab) Date 4-14-25 Time 4:05 | Eastern / Central | Composite end Date Time | Bottle Group(s): C

Matrix (type, e.g., Salt, Fresh, etc) | Diss. Oxygen ☐ mg/L ☐ % sat | Total Res. Chlorine (mg/L)

Temp (C) | pH | Sample Depth ☐ ft ☐ m | Sp. Conductance (umho/cm)

Salinity (ppt) | Comments

Location:

Field ID:

WIN/STORET #:

Latitude: ☐ dd ☐ dms

Longitude: ☐ dd ☐ dms

☐ Comp ☐ Grab | Collection (comp begin or grab) Date Time | Eastern / Central | Composite end Date Time | Bottle Group(s)

Matrix (type, e.g., Salt, Fresh, etc) | Diss. Oxygen ☐ mg/L ☐ % sat | Total Res. Chlorine (mg/L)

Temp (C) | pH | Sample Depth ☐ ft ☐ m | Sp. Conductance (umho/cm)

Salinity (ppt) | Comments

Relinquished By:	Date/Time	Shipping Method	Number of Coolers Shipped:	Received By:	Date/Time
	4/14/2025 1:00pm	FedEx	3	Amzad Shaik	04/15/2025 / 08:50

From Sample. ABB 4-15-25

4.15.25 0855 for samples

4/22/2025

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
TASK ASSIGNMENT/NOTIFICATION FORM: LAB145

Contract Manager: Linda Allen/Devon Cobb (850)-245-8084 / (850) 245-8078
2600 Blair Stone Rd., MS 6512
Tallahassee, FL 32399-2400

Contractor: Eurofins Environmental Testing Southeast, LLC
5102 LaRoche Ave
Savannah, GA 31404
ATTN: Noel Savoie

DEP Approval By: Devon R. Cobb-Williams Contractor Approval By: Noel Savoie
Project Manager

Contractor Representatives Contacted: Noel Savoie

Date: 3/18/2025
Means of Contact: Email

Task Assignment Number: OV686 Maximum Cost: **$83.00** Turnaround Time: 5 BD

Sample Delivery Date: 4/15/2025

Project Name/Description:
RQ-2025-03-01-31-25:FYIS NED Hastings WWTF (FL0042315-5)

Deliverable Number/ Parameter Group/ Method	**Sample Matrix**	**# of Samples**	**# of Containers**	**DEP ID #**	**Unit Cost**	**% Mark-up (if any)**	**Cost**
Quote/OV-CBOD-IN CBOD, nitrogen-inhibited 5210B-2011	W	2	2		$39.00		$78.00
217/Sample Disposal Fee	2				$2.50		$5.00
Total Number of Containers Shipped:	2					**Total:**	**$83.00**



QC Instructions:

Comments: Quote #

Samples released to Contract Lab by: _____ Date/Time: 4/14/2025 1:00pm

Delivery Method: _____ Shipping FedEx

Samples Accepted by: _____ Date/Time 4/15/25 0925

* **Please sign and return by email to** Linda.S.Allen@FloridaDEP.gov and Devon.R.Cobb@dep.state.fl.us

Page 14 of 19

Appendix C. Chemical Analysis of Effluent

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
4/13/2025 14:00	Effluent Composite	Overflow	Carbonaceous Biochemical Oxygen Demand	2.0 U	mg/L	2	2
4/13/2025 14:00	Effluent Composite	Nutrients	TSS	2 I	mg/L	2	10
4/13/2025 14:00	Effluent Composite	Nutrients	Kjeldahl Nitrogen	0.92	mg N/L	0.08	0.2
4/13/2025 14:00	Effluent Composite	Nutrients	Ammonia-N	0.069	mg N/L	0.002	0.005
4/13/2025 14:00	Effluent Composite	Nutrients	Total-P	2.4	mg P/L	0.05	0.25
4/13/2025 14:00	Effluent Composite	Nutrients	NO2NO3-N	1.6	mg N/L	0.04	0.1
4/14/2025 10:45	Effluent Grab	AGP/LN	Algal Growth Potential	13.07 QA	mg DryWt/L	0.3	0.9
4/14/2025 10:45	Effluent Grab	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Uncorrected	0.31 U	µg/L	0.31	0.92
4/14/2025 10:45	Effluent Grab	Chlorophyll/Grain Size/BOD	Phaeophytin-a	0.63 U	µg/L	0.63	1.9
4/14/2025 10:45	Effluent Grab	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	0.52 U	µg/L	0.52	1.5
4/14/2025 10:45	Effluent Grab	Overflow	Enterococci-Quanti-Tray	20.0 J	MPN/100 mL	10	10
4/14/2025 10:45	Effluent Grab	Overflow	Fecal Coliform-Quanti-Tray	1.00 U	MPN/100 mL	1	1
4/14/2025 10:45	Effluent Grab	Toxicology	Bioassay-Acute-Def-FW-C.dubia, LC50	100 L	LC50		
4/14/2025 10:45	Effluent Grab	Toxicology	Bioassay-Acute-Def-FW-Fish, LC50	100 L	LC50		
4/14/2025 10:45	Effluent Grab	Metals	Zinc	62	µg/L	5	20
4/14/2025 10:45	Effluent Grab	Metals	Potassium	11.1	mg/L	0.3	1.2
4/14/2025 10:45	Effluent Grab	Metals	Calcium	26.9	mg/L	0.075	0.3
4/14/2025 10:45	Effluent Grab	Metals	Selenium	0.23 I	µg/L	0.2	0.8
4/14/2025 10:45	Effluent Grab	Metals	Chromium	0.43 I	µg/L	0.4	1.6
4/14/2025 10:45	Effluent Grab	Metals	Silver	0.010 U	µg/L	0.01	0.04
4/14/2025 10:45	Effluent Grab	Metals	Arsenic	0.49	µg/L	0.05	0.2
4/14/2025 10:45	Effluent Grab	Metals	Lead	0.20 U	µg/L	0.2	0.4
4/14/2025 10:45	Effluent Grab	Metals	Copper	1.83	µg/L	0.4	0.8
4/14/2025 10:45	Effluent Grab	Metals	Iron	41 I	µg/L	30	120
4/14/2025 10:45	Effluent Grab	Metals	Nickel	1.6 I	µg/L	0.5	2
4/14/2025 10:45	Effluent Grab	Metals	Cadmium	0.020 U	µg/L	0.02	0.08
4/14/2025 10:45	Effluent Grab	Metals	Aluminum	6.5 I	µg/L	5	20
4/14/2025 10:45	Effluent Grab	Metals	Magnesium	6.01	mg/L	0.04	0.16
4/14/2025 10:45	Effluent Grab	Metals	Sodium	77.7	mg/L	0.5	2
4/14/2025 10:45	Effluent Grab	Nutrients	Turbidity	0.90 I	NTU	0.1	1
4/14/2025 10:45	Effluent Grab	Nutrients	NO2NO3-N	1.7	mg N/L	0.04	0.1

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
4/14/2025 10:45	Effluent Grab	Nutrients	Chloride	95 A	mg Cl/L	0.4	1
4/14/2025 10:45	Effluent Grab	Nutrients	Sulfate	73 A	mg SO4/L	0.4	1
4/14/2025 10:45	Effluent Grab	Nutrients	Total Alkalinity	54 A	mg CaCO3/L	0.65	2.5
4/14/2025 10:45	Effluent Grab	Nutrients	O-Phosphate-P	2.4	mg P/L	0.04	0.1
4/14/2025 10:45	Effluent Grab	Nutrients	Fluoride	0.072 I	mg F/L	0.025	0.1
4/14/2025 10:45	Effluent Grab	Nutrients	Ammonia-N	0.058	mg N/L	0.002	0.005
4/14/2025 10:45	Effluent Grab	Nutrients	Color (true)	5.1 I	PCU	2.5	6
4/14/2025 10:45	Effluent Grab	Nutrients	Organic Carbon	6.8	mg C/L	0.5	1
4/14/2025 10:45	Effluent Grab	Nutrients	Total-P	2.5	mg P/L	0.05	0.25
4/14/2025 10:45	Effluent Grab	Nutrients	Kjeldahl Nitrogen	0.75	mg N/L	0.08	0.2
4/14/2025 10:45	Effluent Grab	Overflow	Mercury	0.6	ng/L	0.2	0.5
4/14/2025 10:45	Effluent Grab	Overflow	1,4 Dioxane	0.12	µg/L	0.062	0.07
4/14/2025 10:45	Effluent Grab	Pesticides	Pendimethalin	1.7 U	ng/L	1.7	8.7
4/14/2025 10:45	Effluent Grab	Pesticides	Phorate	0.25 UJ	ng/L	0.25	1.3
4/14/2025 10:45	Effluent Grab	Pesticides	Pyriproxyfen	0.25 U	ng/L	0.25	1.6
4/14/2025 10:45	Effluent Grab	Pesticides	Terbufos	0.20 U	ng/L	0.2	1
4/14/2025 10:45	Effluent Grab	Pesticides	Ametryn	1.1 U	ng/L	1.1	5.6
4/14/2025 10:45	Effluent Grab	Pesticides	Chlorpyrifos Ethyl	0.31 U	ng/L	0.31	1.5
4/14/2025 10:45	Effluent Grab	Pesticides	Demeton	3.6 UJ	ng/L	3.6	18
4/14/2025 10:45	Effluent Grab	Pesticides	Disulfoton	0.61 U	ng/L	0.61	3.1
4/14/2025 10:45	Effluent Grab	Pesticides	Fenbuconazole	0.51 U	ng/L	0.51	2.5
4/14/2025 10:45	Effluent Grab	Pesticides	Fipronil Sulfone	0.25 U	ng/L	0.25	1.3
4/14/2025 10:45	Effluent Grab	Pesticides	Fipronil	0.20 U	ng/L	0.2	1
4/14/2025 10:45	Effluent Grab	Pesticides	Iprodione	0.51 U	ng/L	0.51	2.5
4/14/2025 10:45	Effluent Grab	Pesticides	Malathion	0.36 U	ng/L	0.36	1.8
4/14/2025 10:45	Effluent Grab	Pesticides	Alachlor	0.41 U	ng/L	0.41	2
4/14/2025 10:45	Effluent Grab	Pesticides	Atrazine	10	ng/L	0.2	1
4/14/2025 10:45	Effluent Grab	Pesticides	Azoxystrobin	6.1 J	ng/L	0.41	2
4/14/2025 10:45	Effluent Grab	Pesticides	Carfentrazone Ethyl	0.15 U	ng/L	0.15	0.76
4/14/2025 10:45	Effluent Grab	Pesticides	Dithiopyr	2.0 U	ng/L	2	10
4/14/2025 10:45	Effluent Grab	Pesticides	Ethoprop	0.13 UJ	ng/L	0.13	0.64
4/14/2025 10:45	Effluent Grab	Pesticides	Ibuprofen	0.080 U	µg/L	0.08	0.32
4/14/2025 10:45	Effluent Grab	Pesticides	Naled	2.5 U	ng/L	2.5	13
4/14/2025 10:45	Effluent Grab	Pesticides	Prodiamine	0.20 U	ng/L	0.2	1

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
4/14/2025 10:45	Effluent Grab	Pesticides	Atrazine Desethyl	1.3 U	ng/L	1.3	6.6
4/14/2025 10:45	Effluent Grab	Pesticides	Butylate	0.46 U	ng/L	0.46	2.3
4/14/2025 10:45	Effluent Grab	Pesticides	Carbophenothion	0.51 U	ng/L	0.51	2.5
4/14/2025 10:45	Effluent Grab	Pesticides	Mevinphos	1.0 UJ	ng/L	1	5.1
4/14/2025 10:45	Effluent Grab	Pesticides	Azinphos Methyl	3.1 U	ng/L	3.1	15
4/14/2025 10:45	Effluent Grab	Pesticides	Dimethenamid	0.10 U	ng/L	0.1	0.51
4/14/2025 10:45	Effluent Grab	Pesticides	Ethion	0.31 U	ng/L	0.31	1.5
4/14/2025 10:45	Effluent Grab	Pesticides	Fipronil Desulfinyl	0.12 I	ng/L	0.1	0.51
4/14/2025 10:45	Effluent Grab	Pesticides	Imazalil	0.66 U	ng/L	0.66	3.3
4/14/2025 10:45	Effluent Grab	Pesticides	Myclobutanil	0.36 U	ng/L	0.36	1.8
4/14/2025 10:45	Effluent Grab	Pesticides	Norflurazon	1.0 U	ng/L	1	5.1
4/14/2025 10:45	Effluent Grab	Pesticides	Oxyfluorfen	0.20 U	ng/L	0.2	1
4/14/2025 10:45	Effluent Grab	Pesticides	Propiconazole	0.61 U	ng/L	0.61	3.1
4/14/2025 10:45	Effluent Grab	Pesticides	Sulfentrazone	1.4 U	ng/L	1.4	7.1
4/14/2025 10:45	Effluent Grab	Pesticides	Tebuconazole	1.9 I	ng/L	1.4	7.1
4/14/2025 10:45	Effluent Grab	Pesticides	Cyanazine	5.1 U	ng/L	5.1	25
4/14/2025 10:45	Effluent Grab	Pesticides	Sucralose	96	ug/L	0.1	0.4
4/14/2025 10:45	Effluent Grab	Pesticides	Naproxen	0.0080 U	ug/L	0.008	0.032
4/14/2025 10:45	Effluent Grab	Pesticides	Metolachlor	2.1 I	ng/L	0.76	3.8
4/14/2025 10:45	Effluent Grab	Pesticides	Molinate	0.25 U	ng/L	0.25	1.3
4/14/2025 10:45	Effluent Grab	Pesticides	Prometon	3.1 U	ng/L	3.1	15
4/14/2025 10:45	Effluent Grab	Pesticides	Prometryn	0.36 U	ng/L	0.36	1.8
4/14/2025 10:45	Effluent Grab	Pesticides	Pronamide	0.10 U	ng/L	0.1	0.51
4/14/2025 10:45	Effluent Grab	Pesticides	Bromacil	0.61 U	ng/L	0.61	3.1
4/14/2025 10:45	Effluent Grab	Pesticides	Difenoconazole	0.61 U	ng/L	0.61	3.1
4/14/2025 10:45	Effluent Grab	Pesticides	EPTC	0.51 U	ng/L	0.51	2.5
4/14/2025 10:45	Effluent Grab	Pesticides	Fipronil Sulfide	0.40 I	ng/L	0.1	0.51
4/14/2025 10:45	Effluent Grab	Pesticides	Flumioxazin	3.1 U	ng/L	3.1	15
4/14/2025 10:45	Effluent Grab	Pesticides	Flutolanil	0.10 U	ng/L	0.1	0.51
4/14/2025 10:45	Effluent Grab	Pesticides	Fluxapyroxad	0.25 U	ng/L	0.25	1.3
4/14/2025 10:45	Effluent Grab	Pesticides	Fonofos	0.15 U	ng/L	0.15	0.76
4/14/2025 10:45	Effluent Grab	Pesticides	Metribuzin	0.41 U	ng/L	0.41	2
4/14/2025 10:45	Effluent Grab	Pesticides	Simazine	1.3	ng/L	0.25	1.3
4/14/2025 10:45	Effluent Grab	Pesticides	Terbuthylazine	0.20 U	ng/L	0.2	1

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
4/14/2025 10:45	Effluent Grab	Pesticides	Parathion Methyl	0.20 U	ng/L	0.2	1
4/14/2025 10:45	Effluent Grab	Pesticides	Acetochlor	0.20 U	ng/L	0.2	1
4/14/2025 10:45	Effluent Grab	Pesticides	Fluazifop-P-butyl	0.10 U	ng/L	0.1	0.51
4/14/2025 10:45	Effluent Grab	Pesticides	Oxadiazon	0.36 U	ng/L	0.36	1.8
4/14/2025 10:45	Effluent Grab	Pesticides	Parathion Ethyl	0.15 U	ng/L	0.15	0.76
4/14/2025 10:45	Effluent Grab	Pesticides	Chlorpyrifos Methyl	0.10 U	ng/L	0.1	0.51
4/14/2025 10:45	Effluent Grab	Pesticides	Diazinon	0.13 U	ng/L	0.13	0.64
4/14/2025 10:45	Effluent Grab	Pesticides	Fenamiphos	0.46 U	ng/L	0.46	2.3
4/14/2025 10:45	Effluent Grab	Pesticides	Fludioxonil	0.10 U	ng/L	0.1	0.51
4/14/2025 10:45	Effluent Grab	Pesticides	Hexazinone	0.51 U	ng/L	0.51	2.5
4/14/2025 10:45	Effluent Grab	Pesticides	Metalaxyl	0.51 U	ng/L	0.51	2.5
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	Di-n-butyl phthalate	2.0 U	µg/L	2	8.2
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	Hexachloroethane	0.051 U	µg/L	0.051	0.2
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	Pyrene	0.10 U	µg/L	0.1	0.41
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	2,4-Dichlorophenol	0.051 U	µg/L	0.051	0.2
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	4-Nitrophenol	10 U	µg/L	10	41
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	Benzo(b)fluoranthene	0.026 U	µg/L	0.026	0.1
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	Chrysene	0.026 U	µg/L	0.026	0.1
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	Fluoranthene	0.051 U	µg/L	0.051	0.2
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	Hexachlorocyclopentadiene	0.051 U	µg/L	0.051	0.2
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.026 U	µg/L	0.026	0.1
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	N-Nitrosodimethylamine	2.0 U	µg/L	2	8.2
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	2,4-Dinitrophenol	10 U	µg/L	10	41
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.051 U	µg/L	0.051	0.2
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	Benzo(a)anthracene	0.026 U	µg/L	0.026	0.1
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	Benzo(a)pyrene	0.026 U	µg/L	0.026	0.1
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.026 U	µg/L	0.026	0.1
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.051 U	µg/L	0.051	0.2
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	0.051 U	µg/L	0.051	0.2
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	Diethyl phthalate	2.0 U	µg/L	2	8.2
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	Phenanthrene	0.10 U	µg/L	0.1	0.41
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	Phenol	0.051 U	µg/L	0.051	0.2
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.051 U	µg/L	0.051	0.2
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	2-Chlorophenol	0.051 U	µg/L	0.051	0.2

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	3.1 U	µg/L	3.1	12
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	2-Nitrophenol	0.051 UJ	µg/L	0.051	0.2
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	Benzidine	10 U	µg/L	10	41
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	Benzo(k)fluoranthene	0.026 U	µg/L	0.026	0.1
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.026 U	µg/L	0.026	0.1
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	Fluorene	0.026 U	µg/L	0.026	0.1
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	2-Chloronaphthalene	0.051 U	µg/L	0.051	0.2
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.051 U	µg/L	0.051	0.2
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	5.1 U	µg/L	5.1	20
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	Dimethyl phthalate	0.20 U	µg/L	0.2	0.82
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	Nitrobenzene	0.051 U	µg/L	0.051	0.2
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	Pentachlorophenol	0.51 U	µg/L	0.51	2
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	Hexachlorobutadiene	0.051 U	µg/L	0.051	0.2
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	0.051 U	µg/L	0.051	0.2
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	2,4-Dimethylphenol	0.051 U	µg/L	0.051	0.2
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	3,3'-Dichlorobenzidine	10 UJ	µg/L	10	41
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.051 U	µg/L	0.051	0.2
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	0.051 U	µg/L	0.051	0.2
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	Acenaphthene	0.026 U	µg/L	0.026	0.1
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	Anthracene	0.051 U	µg/L	0.051	0.2
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.051 U	µg/L	0.051	0.2
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	Butyl benzyl phthalate	1.0 U	µg/L	1	4.1
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	Di-n-octyl phthalate	0.051 U	µg/L	0.051	0.2
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	Isophorone	0.051 U	µg/L	0.051	0.2
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	Naphthalene	0.10 U	µg/L	0.1	0.41
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	2,4-Dinitrotoluene	0.051 U	µg/L	0.051	0.2
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	2,6-Dinitrotoluene	0.051 U	µg/L	0.051	0.2
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	Acenaphthylene	0.026 U	µg/L	0.026	0.1
4/14/2025 10:45	Effluent Grab	Priority Organic Pollutants	Hexachlorobenzene	0.051 U	µg/L	0.051	0.2
4/14/2025 10:45	Effluent Grab	Nutrients	pH	6.92			
4/14/2025 10:45	Effluent Grab	Nutrients	Dissolved Oxygen %Sat	90.3	%Sat		
4/14/2025 10:45	Effluent Grab	Nutrients	Temperature	24	C		
4/14/2025 10:45	Effluent Grab	Nutrients	Specific Conductance	579	umhos/cm		
4/14/2025 11:05	Field Blank	Metals	Potassium	0.30 U	mg/L	0.3	1.2

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
4/14/2025 11:05	Field Blank	Metals	Lead	0.20 U	µg/L	0.2	0.4
4/14/2025 11:05	Field Blank	Metals	Cadmium	0.020 U	µg/L	0.02	0.08
4/14/2025 11:05	Field Blank	Metals	Arsenic	0.050 U	µg/L	0.05	0.2
4/14/2025 11:05	Field Blank	Metals	Zinc	5.0 U	µg/L	5	20
4/14/2025 11:05	Field Blank	Metals	Sodium	0.50 U	mg/L	0.5	2
4/14/2025 11:05	Field Blank	Metals	Nickel	0.50 U	µg/L	0.5	2
4/14/2025 11:05	Field Blank	Metals	Aluminum	5.0 U	µg/L	5	20
4/14/2025 11:05	Field Blank	Metals	Calcium	0.075 U	mg/L	0.075	0.3
4/14/2025 11:05	Field Blank	Metals	Iron	30 U	µg/L	30	120
4/14/2025 11:05	Field Blank	Metals	Silver	0.010 U	µg/L	0.01	0.04
4/14/2025 11:05	Field Blank	Metals	Chromium	0.40 U	µg/L	0.4	1.6
4/14/2025 11:05	Field Blank	Metals	Selenium	0.20 U	µg/L	0.2	0.8
4/14/2025 11:05	Field Blank	Metals	Copper	0.40 U	µg/L	0.4	0.8
4/14/2025 11:05	Field Blank	Metals	Magnesium	0.040 U	mg/L	0.04	0.16
4/14/2025 11:05	Field Blank	Nutrients	Ammonia-N	0.002 U	mg N/L	0.002	0.005
4/14/2025 11:05	Field Blank	Nutrients	NO2NO3-N	0.004 U	mg N/L	0.004	0.01
4/14/2025 11:05	Field Blank	Nutrients	Sulfate	0.20 U	mg SO4/L	0.2	0.5
4/14/2025 11:05	Field Blank	Nutrients	Total Alkalinity	0.65 U	mg CaCO3/L	0.65	2.5
4/14/2025 11:05	Field Blank	Nutrients	Color (true)	2.5 U	PCU	2.5	6
4/14/2025 11:05	Field Blank	Nutrients	O-Phosphate-P	0.004 U	mg P/L	0.004	0.01
4/14/2025 11:05	Field Blank	Nutrients	Total-P	0.002 U	mg P/L	0.002	0.005
4/14/2025 11:05	Field Blank	Nutrients	Kjeldahl Nitrogen	0.080 U	mg N/L	0.08	0.2
4/14/2025 11:05	Field Blank	Nutrients	Organic Carbon	0.50 U	mg C/L	0.5	1
4/14/2025 11:05	Field Blank	Nutrients	Turbidity	0.10 U	NTU	0.1	1
4/14/2025 11:05	Field Blank	Nutrients	Chloride	0.20 U	mg Cl/L	0.2	0.5
4/14/2025 11:05	Field Blank	Nutrients	Fluoride	0.025 U	mg F/L	0.025	0.1
4/14/2025 11:05	Field Blank	Overflow	1,4 Dioxane	0.062 U	µg/L	0.062	0.07
4/14/2025 11:05	Field Blank	Overflow	Mercury	0.33 I	ng/L	0.2	0.5
4/14/2025 11:05	Field Blank	Pesticides	Ibuprofen	0.080 U	µg/L	0.08	0.32
4/14/2025 11:05	Field Blank	Pesticides	Atrazine Desethyl	1.3 U	ng/L	1.3	6.6
4/14/2025 11:05	Field Blank	Pesticides	Bromacil	0.61 U	ng/L	0.61	3.1
4/14/2025 11:05	Field Blank	Pesticides	Butylate	0.46 U	ng/L	0.46	2.3
4/14/2025 11:05	Field Blank	Pesticides	Metolachlor	0.77 U	ng/L	0.77	3.8
4/14/2025 11:05	Field Blank	Pesticides	Oxyfluorfen	0.20 U	ng/L	0.2	1

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
4/14/2025 11:05	Field Blank	Pesticides	Prometon	3.1 U	ng/L	3.1	15
4/14/2025 11:05	Field Blank	Pesticides	Pronamide	0.10 U	ng/L	0.1	0.51
4/14/2025 11:05	Field Blank	Pesticides	Tebuconazole	1.4 U	ng/L	1.4	7.1
4/14/2025 11:05	Field Blank	Pesticides	Naproxen	0.0080 U	µg/L	0.008	0.032
4/14/2025 11:05	Field Blank	Pesticides	Fenamiphos	0.46 U	ng/L	0.46	2.3
4/14/2025 11:05	Field Blank	Pesticides	Fludioxonil	0.10 U	ng/L	0.1	0.51
4/14/2025 11:05	Field Blank	Pesticides	Naled	2.6 U	ng/L	2.6	13
4/14/2025 11:05	Field Blank	Pesticides	Pendimethalin	1.7 U	ng/L	1.7	8.7
4/14/2025 11:05	Field Blank	Pesticides	Sulfentrazone	1.4 U	ng/L	1.4	7.1
4/14/2025 11:05	Field Blank	Pesticides	Terbufos	0.20 U	ng/L	0.2	1
4/14/2025 11:05	Field Blank	Pesticides	Disulfoton	0.61 U	ng/L	0.61	3.1
4/14/2025 11:05	Field Blank	Pesticides	Fipronil	0.20 U	ng/L	0.2	1
4/14/2025 11:05	Field Blank	Pesticides	Iprodione	0.51 U	ng/L	0.51	2.6
4/14/2025 11:05	Field Blank	Pesticides	Malathion	0.36 U	ng/L	0.36	1.8
4/14/2025 11:05	Field Blank	Pesticides	Propiconazole	0.61 U	ng/L	0.61	3.1
4/14/2025 11:05	Field Blank	Pesticides	Simazine	0.26 U	ng/L	0.26	1.3
4/14/2025 11:05	Field Blank	Pesticides	Terbuthylazine	0.20 U	ng/L	0.2	1
4/14/2025 11:05	Field Blank	Pesticides	Carfentrazone Ethyl	0.15 U	ng/L	0.15	0.77
4/14/2025 11:05	Field Blank	Pesticides	Chlorpyrifos Methyl	0.10 U	ng/L	0.1	0.51
4/14/2025 11:05	Field Blank	Pesticides	Demeton	3.6 UJ	ng/L	3.6	18
4/14/2025 11:05	Field Blank	Pesticides	Fipronil Desulfinyl	0.10 U	ng/L	0.1	0.51
4/14/2025 11:05	Field Blank	Pesticides	Fluxapyroxad	0.26 U	ng/L	0.26	1.3
4/14/2025 11:05	Field Blank	Pesticides	Mevinphos	1.0 UJ	ng/L	1	5.1
4/14/2025 11:05	Field Blank	Pesticides	Azinphos Methyl	3.1 U	ng/L	3.1	15
4/14/2025 11:05	Field Blank	Pesticides	Azoxystrobin	0.41 U	ng/L	0.41	2
4/14/2025 11:05	Field Blank	Pesticides	Diazinon	0.13 U	ng/L	0.13	0.64
4/14/2025 11:05	Field Blank	Pesticides	EPTC	0.51 U	ng/L	0.51	2.6
4/14/2025 11:05	Field Blank	Pesticides	Fipronil Sulfone	0.26 U	ng/L	0.26	1.3
4/14/2025 11:05	Field Blank	Pesticides	Molinate	0.26 U	ng/L	0.26	1.3
4/14/2025 11:05	Field Blank	Pesticides	Ametryn	1.1 U	ng/L	1.1	5.6
4/14/2025 11:05	Field Blank	Pesticides	Atrazine	0.20 U	ng/L	0.2	1
4/14/2025 11:05	Field Blank	Pesticides	Fenbuconazole	0.51 U	ng/L	0.51	2.6
4/14/2025 11:05	Field Blank	Pesticides	Flumioxazin	3.1 U	ng/L	3.1	15
4/14/2025 11:05	Field Blank	Pesticides	Flutolanil	0.10 U	ng/L	0.1	0.51

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
4/14/2025 11:05	Field Blank	Pesticides	Hexazinone	0.51 U	ng/L	0.51	2.6
4/14/2025 11:05	Field Blank	Pesticides	Metalaxyl	0.51 U	ng/L	0.51	2.6
4/14/2025 11:05	Field Blank	Pesticides	Norflurazon	1.0 U	ng/L	1	5.1
4/14/2025 11:05	Field Blank	Pesticides	Oxadiazon	0.36 U	ng/L	0.36	1.8
4/14/2025 11:05	Field Blank	Pesticides	Parathion Methyl	0.20 U	ng/L	0.2	1
4/14/2025 11:05	Field Blank	Pesticides	Phorate	0.26 UJ	ng/L	0.26	1.3
4/14/2025 11:05	Field Blank	Pesticides	Prometryn	0.36 U	ng/L	0.36	1.8
4/14/2025 11:05	Field Blank	Pesticides	Sucralose	0.010 U	ug/L	0.01	0.04
4/14/2025 11:05	Field Blank	Pesticides	Acetochlor	0.20 U	ng/L	0.2	1
4/14/2025 11:05	Field Blank	Pesticides	Alachlor	0.41 U	ng/L	0.41	2
4/14/2025 11:05	Field Blank	Pesticides	Carbophenothion	0.51 U	ng/L	0.51	2.6
4/14/2025 11:05	Field Blank	Pesticides	Chlorpyrifos Ethyl	0.31 U	ng/L	0.31	1.5
4/14/2025 11:05	Field Blank	Pesticides	Dithiopyr	2.0 U	ng/L	2	10
4/14/2025 11:05	Field Blank	Pesticides	Ethoprop	0.13 UJ	ng/L	0.13	0.64
4/14/2025 11:05	Field Blank	Pesticides	Fluazifop-P-butyl	0.10 U	ng/L	0.1	0.51
4/14/2025 11:05	Field Blank	Pesticides	Fonofos	0.15 U	ng/L	0.15	0.77
4/14/2025 11:05	Field Blank	Pesticides	Metribuzin	0.41 U	ng/L	0.41	2
4/14/2025 11:05	Field Blank	Pesticides	Parathion Ethyl	0.15 U	ng/L	0.15	0.77
4/14/2025 11:05	Field Blank	Pesticides	Pyriproxyfen	0.26 U	ng/L	0.26	1.6
4/14/2025 11:05	Field Blank	Pesticides	Cyanazine	5.1 U	ng/L	5.1	26
4/14/2025 11:05	Field Blank	Pesticides	Difenoconazole	0.61 U	ng/L	0.61	3.1
4/14/2025 11:05	Field Blank	Pesticides	Dimethenamid	0.10 U	ng/L	0.1	0.51
4/14/2025 11:05	Field Blank	Pesticides	Ethion	0.31 U	ng/L	0.31	1.5
4/14/2025 11:05	Field Blank	Pesticides	Fipronil Sulfide	0.10 U	ng/L	0.1	0.51
4/14/2025 11:05	Field Blank	Pesticides	Imazalil	0.66 U	ng/L	0.66	3.3
4/14/2025 11:05	Field Blank	Pesticides	Myclobutanil	0.36 U	ng/L	0.36	1.8
4/14/2025 11:05	Field Blank	Pesticides	Prodiamine	0.20 U	ng/L	0.2	1
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	2-Chloronaphthalene	0.051 U	µg/L	0.051	0.2
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	Pyrene	0.10 U	µg/L	0.1	0.41
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.051 U	µg/L	0.051	0.2
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	Hexachlorocyclopentadiene	0.051 U	µg/L	0.051	0.2
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	Phenol	0.051 U	µg/L	0.051	0.2
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	3,3'-Dichlorobenzidine	10 U	µg/L	10	41
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	Phenanthrene	0.10 U	µg/L	0.1	0.41

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4/14/2025 11:05	Field Blank	Priority Organic Pollutants	Naphthalene	0.10 U	µg/L	0.1	0.41
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	Butyl benzyl phthalate	1.0 U	µg/L	1	4.1
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	0.051 U	µg/L	0.051	0.2
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.051 U	µg/L	0.051	0.2
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	2,6-Dinitrotoluene	0.051 U	µg/L	0.051	0.2
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	2,4-Dichlorophenol	0.051 U	µg/L	0.051	0.2
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	Acenaphthylene	0.026 U	µg/L	0.026	0.1
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	Benzidine	10 U	µg/L	10	41
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	Fluorene	0.026 U	µg/L	0.026	0.1
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	Isophorone	0.051 U	µg/L	0.051	0.2
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	N-Nitrosodimethylamine	2.0 U	µg/L	2	8.2
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.051 U	µg/L	0.051	0.2
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	2,4-Dinitrophenol	10 U	µg/L	10	41
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	Acenaphthene	0.026 U	µg/L	0.026	0.1
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	Benzo(a)pyrene	0.026 U	µg/L	0.026	0.1
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	5.1 U	µg/L	5.1	20
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	Di-n-butyl phthalate	2.0 U	µg/L	2	8.2
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	Hexachlorobutadiene	0.051 U	µg/L	0.051	0.2
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.026 U	µg/L	0.026	0.1
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	2-Chlorophenol	0.051 U	µg/L	0.051	0.2
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	4-Nitrophenol	10 U	µg/L	10	41
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	Benzo(k)fluoranthene	0.026 U	µg/L	0.026	0.1
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	Fluoranthene	0.051 U	µg/L	0.051	0.2
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	Hexachlorobenzene	0.051 U	µg/L	0.051	0.2
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	Hexachloroethane	0.051 U	µg/L	0.051	0.2
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	Nitrobenzene	0.051 U	µg/L	0.051	0.2
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	3.1 U	µg/L	3.1	12
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.051 U	µg/L	0.051	0.2
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	Benzo(a)anthracene	0.026 U	µg/L	0.026	0.1
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	0.051 U	µg/L	0.051	0.2
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	0.051 U	µg/L	0.051	0.2
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	2-Nitrophenol	0.051 UJ	µg/L	0.051	0.2
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.051 U	µg/L	0.051	0.2
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	Benzo(b)fluoranthene	0.026 U	µg/L	0.026	0.1

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4/14/2025 11:05	Field Blank	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.051 U	µg/L	0.051	0.2
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.026 U	µg/L	0.026	0.1
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	Diethyl phthalate	2.0 U	µg/L	2	8.2
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	2,4-Dimethylphenol	0.051 U	µg/L	0.051	0.2
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	2,4-Dinitrotoluene	0.051 U	µg/L	0.051	0.2
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	Anthracene	0.051 U	µg/L	0.051	0.2
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.026 U	µg/L	0.026	0.1
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	Chrysene	0.026 U	µg/L	0.026	0.1
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	Di-n-octyl phthalate	0.051 U	µg/L	0.051	0.2
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	Dimethyl phthalate	0.20 U	µg/L	0.2	0.82
4/14/2025 11:05	Field Blank	Priority Organic Pollutants	Pentachlorophenol	0.51 U	µg/L	0.51	2