

Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

***MONITORING AND RESEARCH
DEPARTMENT***

REPORT NO. 24-38

***RESULTS OF ACUTE TOXICITY TESTING WITH *Ceriodaphnia dubia*
AND *Pimephales promelas* ON A SEPTEMBER 2024 EFFLUENT
SAMPLE FROM THE METROPOLITAN WATER RECLAMATION
DISTRICT OF GREATER CHICAGO***

October 2024

Metropolitan Water Reclamation District of Greater Chicago
100 East Erie Street Chicago, Illinois 60611-2803 (312) 751-5600

RESULTS OF ACUTE TOXICITY TESTING WITH *Ceriodaphnia dubia* AND *Pimephales promelas* ON A SEPTEMBER 2024 EFFLUENT SAMPLE FROM METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

By

EnviroScience, Incorporated
5070 Stow Road
Stow, Ohio 44224

Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

CECIL LUE-HING RESEARCH AND DEVELOPMENT COMPLEX
6001 WEST PERSHING ROAD CICERO, ILLINOIS 60804-4112

Edward W. Podczewinski, P.E.

Director of Monitoring and Research

October 30, 2024

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Illinois Environmental Protection Agency
Compliance Assurance Section CAS # 19
1021 North Grand Avenue
P.O. Box 19276
Springfield, IL 62794-9276

Subject: Biomonitoring Report for 2024 – Acute Toxicity Test Results for the John E. Egan Water Reclamation Plant, National Pollutant Discharge Elimination System Permit Number IL0036340

The subject biomonitoring report including Acute Whole Effluent Toxicity test results for *Pimephales promelas* and *Ceriodaphnia dubia* is submitted in compliance with National Pollutant Discharge Elimination System Permit Number IL0036340, Special Condition 11. The report covers the monitoring done for samples collected in the fifteenth month before the expiration of the permit.

Though the samples were collected during the fifteenth month prior to the expiration of the permit, as is stipulated by the permit, the tests were not completed until the fourteenth month prior to the expiration. This delay was due to issues with the shipping courier and equipment malfunctions. Attempts were made to collect the samples on September 16, September 23, and September 27, 2024; however, a representative sample was not collected until September 30, 2024, leaving no time for testing until the following month. Steps have been taken to prevent this from happening in the future.

The subject report prepared by EnviroScience, Inc., includes copies of all bench sheets, chain-of-custody forms, sample receipt, preparation forms, a summary of final results and test information, quality assurance record, and water quality results.

If you have any questions concerning this report, please contact Mr. Thomas Minarik, Principal Environmental Scientist, at (708) 588-4223.

Very truly yours,

Albert Cox
Environmental Monitoring and Research Manager
Monitoring and Research Department

AC:TM:NK:ek
Enclosure
cc: E. Podczewinski/J. Murray
H. Zhang/T. Minarik/N. Kollias
Via electronic mail

RESULTS OF ACUTE TOXICITY TESTS

48 Hour - *Ceriodaphnia dubia* (water flea)
96 Hour - *Pimephales promelas* (fathead minnow)

Testing period: October 1-5, 2024
Sample collection dates: September 29-30, 2024
Report date: October 16, 2024

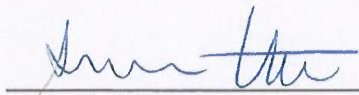
Conducted For:

JOHN E. EGAN WRP
550 South Meacham Road
Schaumburg, IL 60193

Conducted and Prepared By:

ENVIROSCIENCE, INCORPORATED
5070 Stow Rd.
Stow, OH 44224




_____, Aquatic Biologist

October 16, 2024

Mr. Nicholas Kollias
John E. Egan WRP
550 South Meacham Road
Schaumburg, IL 60193

Re: John E. Egan WRP

Dear Mr. Kollias:

Enclosed is a copy of EnviroScience's report for the following whole effluent toxicity (WET) tests that were initiated on October 1, 2024 with effluent collected from outfall 001:

- (1) 48-hour static acute bioassay using *Ceriodaphnia dubia* (water flea) and
- (1) 96-hour static acute bioassay using *Pimephales promelas* (fathead minnow).

The effluent sample was not shown to be toxic to either species. Acute Toxicity Units (TU_a) are listed below.

WET test endpoints for John E. Egan WRP, 10/2024
sample collection period 09/29-30/24


Ceriodaphnia dubia (water flea) 48HR LC₅₀ = >100% effluent; TU_a = <1.0

Pimephales promelas (fathead minnow) 96HR LC₅₀ = >100% effluent; TU_a = <1.0

(TU_a = 100/LC₅₀)

Please call me if you have any questions.

Sincerely,


Alexandria M. Tite, Aquatic Biologist

enclosures



5070 Stow Road
Stow, OH 44224

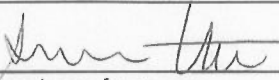
BIOMONITORING REPORT FORM FOR NPDES PERMIT REQUIREMENTS

Table 1. General Information

- 1. Facility: John E. Egan WRP
- 2. Address: 550 South Meacham Road, Schaumburg, IL 60193
- 3. NPDES Permit No.: IL0036340
- 4. Facility Contact: Nicholas Kollias 5. Phone No.: 708-588-4074
- 6. Testing Lab: EnviroScience, Inc., 5070 Stow Rd., Stow, OH 44224
- 7. Laboratory Contact: Alex Tite 8. Phone No.: 330-688-0111
- 9. Receiving Water(s) of Discharge: Salt Creek
- 10. Outfall(s) Tested: 001
- 11. Test Species/Type: #1 Ceriodaphnia dubia (water flea) 48-hour definitive, static, non-renewal
#2 Pimephales promelas (fathead minnow) 96-hour definitive, static, non-renewal
- 12. Dechlorination?: no Original Chlorine Conc.: <0.02 mg/l

13. Report Contents:

General information.....Table 1
 Sampling informationTable 2
 Test dates and timesTable 3
 Initial chemistryTable 4
 Test conditionsTable 5
 Test results Untreated Plant Effluent.....Table 6
 Additional InformationTable 7
 Attachments
 Chain-of-Custody, bench sheets/data analysis
 SRT control charts


Signature of preparer

10/16/24
Date

Alexandria M. Tite
Name (typed or printed)

Aquatic Biologist
Title

Table 2. Sampling summary.

Outfall	Sample Type	Volume Collected	Sample Collection		Flow MGD
			Begin MM/DD/YY-Time	End or Grab MM/DD/YY-Time	
001	composite	2 gallons	09/29/24-0600	09/30/24-0600	

Table 3. Testing periods.

<i>Ceriodaphnia dubia</i> (water flea)		<i>Pimephales promelas</i> (fathead minnow)	
Start Date: MM/DD/YY	10/01/24	Start Date: MM/DD/YY	10/01/24
Start Time:	1245 hrs	Start Time:	1200 hrs
End Date: MM/DD/YY	10/03/24	End Date: MM/DD/YY	10/05/24
End Time:	1300 hrs	End Time:	1115 hrs

Notes: Sample receipt: 10/01/24-0720; 1.9°C.

Table 4. Initial chemistry. DO = dissolved oxygen. TRC = total residual chlorine.

sample # (Plant Effluent)	collection date	DO mg/L	pH s.u.	conductivity μ mho/cm	alkalinity mg/L CaCO ₃	hardness mg/L CaCO ₃	TRC mg/L	Ammonia mg/l
001	09/29-30/24	8.6	6.6	896	92	216	<0.02	0.26

Methods or Instrumentation used in chemical analysis:

Dissolved Oxygen: APHA (1998, 20th ed.) 4500-O G., OX 4100L

pH: APHA (1998, 20th ed.) 4500-H⁺ B., Orion Star A211

Conductivity: APHA (1998, 20th ed.) 2510 B., Orion Star A212

Total Alkalinity: APHA (1998, 20th ed.) 2320 B.

Total Hardness: APHA (1998, 20th ed.) 2340 C.

Total Residual Chlorine: APHA (1998, 20th ed.) 4500-Cl D., TitraLab AT1000

Ammonia nitrogen: APHA (1992, 18th ed.) 4500-NH₃ C., HI 95715

Table 5. Summary of toxicity test conditions for testing with *Ceriodaphnia dubia* and *Pimephales promelas*.

	<i>Ceriodaphnia dubia</i>	<i>Pimephales promelas</i>
1. Test dates:	10/01/24-1245 to 10/03/24-1300	10/01/24-1200 to 10/05/24-1115
2. Test type and duration:	static, non-renewal, 48 hours	static, non-renewal, 96-hours
3. Age and source of organisms:	<24 hours, EnviroScience 09/30/24-1600	7 days, ABS 09/23/24-1600
4. Photoperiod/ Light quality:	16 hours light / 8 hours dark fluorescent light, 50-100fc	16 hours light / 8 hours dark fluorescent light, 50-100fc
5. Test temperature:	25±1 °C	25±1 °C
6. Feeding regime:	fed alga <i>Selenastrum capricornutum</i> and YAT prior to test only	fed <500 brine shrimp/vessel at 48-hours
7. Size of test vessel:	30 ml plastic cup	600 ml glass beaker
8. Volume and depth of test solutions:	15 ml and 24 mm	250 ml and 42 mm
9. No. of test organisms per vessel:	5	10, unless otherwise noted
10. No. of vessels per solution:	4	2
11. Total no. of organisms per test level:	20	20, unless otherwise noted
12. Test concentrations as % effluent:	6.25, 12.5, 25, 50, and 100	6.25, 12.5, 25, 50, and 100
13. Dilution and primary control water:	moderately hard reconstituted water, MHRW	moderately hard reconstituted water, MHRW
14. Secondary control:	moderately hard dilute mineral water, DMW	moderately hard dilute mineral water, DMW
15. Aeration:	none	none
16. Endpoints:	mortality - no movement with gentle prodding (LC ₅₀); plus behavioral effects such as atypical swimming (EC ₅₀)	mortality - no movement with gentle prodding (LC ₅₀); plus behavioral effects such as atypical swimming (EC ₅₀)
17. No. of consecutive tests conducted with an alternate source of primary control water:	NA	NA

Table 6. Percent cumulative mortality, LC ₅₀ , EC ₅₀ , and 95% confidence intervals for acute toxicity tests using <i>Ceriodaphnia dubia</i> and <i>Pimephales promelas</i> using effluent collected from Outfall 001 .						
Concentration	<i>C. dubia</i> (water flea) 10/01/24 to 10/03/24		<i>P. promelas</i> (fathead minnow) 10/01/24 to 10/05/24			
	24-hours % mortality	48-hours % mortality	24-hours % mortality	48-hours % mortality	72-hours % mortality	96-hours % mortality
MHRW lab water, diluent	0	0	0	10	10	10
DMW lab water	0	0	0	0	0	0
6.25% effluent	0	0	0	5	5	5
12.5% effluent	0	0	0	5	5	10
25% effluent	0	0	0	10	10	10
50% effluent	0	0	0	0	5	10
100% effluent	0	0	0	0	5	5
LC ₅₀	>100% effluent	>100% effluent	>100% effluent	>100% effluent	>100% effluent	>100% effluent
95% C.I.						
EC ₅₀	>100% effluent	>100% effluent	>100% effluent	>100% effluent	>100% effluent	>100% effluent
95% C.I.						
TU _a (100+LC ₅₀)		<1.0				<1.0
Methods:	Cetis 2.1.5 TU _a = 100/LC ₅₀ .					

Table 7. Additional Information:

Indicate below any other relevant information that may aid in the evaluation of this report. Include any deviations from current SOP that were necessary. Attach additional pages as needed.

7.1 Deviations/relevant information.

7.2 Terms.

LC_{50} = median lethal concentration. A mathematical estimate of the effluent concentration that would kill 50% of the exposed specimens during the specified exposure period.

TU_a = Acute Toxicity Unit; $TU_a = 100 \div LC_{50}$ (usually 48-hour LC_{50} for water fleas and 96-hour LC_{50} for FHM)

ATTACHMENTS

Chain-of-Custody/Sample Submission
Bench sheets
Standard Reference Toxicant Control Charts



EnviroScience, Inc.
 5070 Stow Road
 Stow, OH 44224
 Phone (330) 688-0111
 Fax (330) 688-3858
 1-800-940-4025

Client: John E. Egan WRP
 Address: 6001 West Pershing Road
 Cicero, IL 60804
 Contact: Nicholas Kollias
 Phone: 708-588-4074
 Permit #: IL

SAMPLE SUBMISSION AND CHAIN OF CUSTODY FORM

- Test(s) to be performed:**
- Chronic Definitive
 - Acute Definitive
 - 48 hr. Screening
 - 24 hr. Stormwater
 - Pass/Fail

Test Species

- P. promelas and C. dubia
- P. promelas
- C. dubia
- D. magna

- Wastewater Type (Circle One)**
- Industrial Other
 - Municipal
 - Other

When listing a composite sample in the table below, please provide the start and end time of the composite period.

Start Date	Time	End Date	Time	Station No.	Sample Site	Sample Type		Number of Containers	Chemistry				
						Comp	Grab		TRC	Cond	D.O.	pH	Temp. °C
9/29/24	0600	9/30/24	0600	B100T-SE	John E. Egan WRP	<input checked="" type="checkbox"/>		1	0	557	8.66	7.18	5.7

Comp. = Composite, D.O. = Dissolved Oxygen measured in mg/l, pH measured in s.u., Conductivity measured in uohm/cm

Sampling Collector's Information: please check all appropriate boxes

	Effluent	Upstream	Near Field	Far Field	Phine Determined By What Method?	Collector's Information		EnviroScience Personnel Only			
						Collector's Name	Collector's Signature	M.G.D.	Weather Conditions	Collected By	Collector's Signature
<input checked="" type="checkbox"/>						Nick Kollias	[Signature]				

Comments:

Received from	Received by	Date	Time	Shipping Information		EnviroScience Use Only	
				Date Shipped	Time Shipped	Client	Sample ID's
MWRDC [Signature]	[Signature]	9/29/24	0710			John E Egan	JOEG10124 EFF
				Method Shipped		Cond. Of Container	9000
				ES Vehicle		Temp. °C	1.9°C

EnviroScience, Inc. Cooler Receipt Form (Form 7050-2 rev. 03/30/22)

Client John G. Egan

ES Sample ID JOEG ¹⁰⁰¹²⁴ ~~10724~~ GPF

Cooler Received by: HD

Date Cooler Received and Opened 100124

Received from: FedEx UPS Client Drop Off ES Courier

1. Were custody seals on the outside of cooler? Yes No
Were custody seals signed, dated and intact? Yes No
2. Did Chain of Custody (COC) accompany the samples? Yes No
3. Were the COC's signed in the appropriate places? Yes No
If No explain _____
4. Was the sample time and date filled in correctly? Yes No
5. Sample Temperature upon receipt 1.9 °C
6. Did all sample container labels match the samples written on the COC? Yes No
Were the sample containers in good condition? Yes No
7. Was sufficient quantity received to perform indicated tests? Yes No
8. Was this sample received within required holding time? Yes No
9. EPA method code: 1000.0: 1002.0: 2000.0: 2002.0:

Explain any discrepancies or client notifications that occurred regarding this sample: _____



5070 Stow Road
Stow, Ohio 44224
Phone (330) 688-0111; 1-800-940-4025
Fax (330) 688-3858



Acute, 48-hour, non-renewal Bioassay:

Project: JOEG

No.: 10030340

Start Date: 10/12/24 Time: 1245

End Date: 10/30/24 Time: 1300

Organism: C. dubia

Source: B3 092324(2)

Hatch/Age: 0930/24 1600-2400 / 24 hrs

Diluent: MHR

Sample #: JOEG 100124 615

test levels	Biological Parameters				Chemistry and Physical Parameters																
	Rep	n	Dead / Affected		Temperature (Celsius)			Dissolved Oxygen (mg/L)			pH (s.u.)			Conductivity (µmhos/cm)							
			24 hr	48 hr	0	24	48	0	24	48	0	24	48	0	24	48					
MHR	A	5	0	1	0	24.0	24.6	24.2	8.6		7.4	7.2		7.5	300		294				
	B	5	0	1	0										281						
	C	5	0	1	0																
	D	5	0	1	0																
DHW	A	5	0	1	0	24.0	24.6	24.4	8.6		7.5	7.2		7.2	169		190				
	B	5	0	1	0																
	C	5	0	1	0																
	D	5	0	1	0																
6.25	A	5	0	1	0	24.0	24.6	24.3	8.6		7.4	6.7		7.3	320		330				
	B	5	0	1	0																
	C	5	0	1	0																
	D	5	0	1	0																
12.5	A	5	0	1	0	24.0	24.1	24.3	8.6		8.1	6.7		7.3	360		367				
	B	5	0	1	0																
	C	5	0	1	0																
	D	5	0	1	0																
25	A	5	0	1	0	24.0	24.6	24.3	8.6		7.8	6.7		7.3	434		438				
	B	5	0	1	0																
	C	5	0	1	0																
	D	5	0	1	0																
50	A	5	0	1	0	24.0	24.4	24.2	8.6		7.8	6.7		7.4	596		585				
	B	5	0	1	0																
	C	5	0	1	0																
	D	5	0	1	0																
100	A	5	0	1	0	24.0	24.5	24.2	8.6		7.9	6.6		7.5	903		879				
	B	5	0	1	0																
	C	5	0	1	0																
	D	5	0	1	0																
Time	1245		1330		1300	1245	1330	1300	1020		1320	1020		1320	1020		1300				
Tech	HD		RL		MS	HD	RL	MS	RL		MS	RL		MS	RL		MS				
						10	10	10	OX4100L			Orion StarA211 A			Orion StarA212						
						ID or √ instrument used			✓		✓	✓		✓	✓	✓	✓		✓		✓
						Other:						Orion StarA211 B									

JAT

CETIS Analytical Report

Report Date: 15 Oct-24 13:35 (p 1 of 2)
 Test Code/ID: 25967FCA / 06-3062-0106

Ceriodaphnia 48-h Acute Survival Test EnviroScience

Analysis ID: 14-9895-5726 Endpoint: 48h Survival Rate CETIS Version: CETIS v2.1.5
 Analyzed: 14 Oct-24 13:57 Analysis: Linear Interpolation (ICPIN) Status Level: 1
 Edit Date: 14 Oct-24 0:00 MD5 Hash: 68E117461239090AA7E1427F0F536296 Editor ID: 007-869-049-5

Batch ID: 05-7126-4694 Test Type: Survival (48h) Analyst:
 Start Date: 01 Oct-24 12:45 Protocol: EPA/821/R-02-012 (2002) Diluent: Upstream of Discharge
 Ending Date: 03 Oct-24 13:00 Species: Ceriodaphnia dubia Brine:
 Test Length: 48h Taxon: Branchiopoda Source: In-House Culture Age:

Sample ID: 10-7076-0972 Code: 3FD2840C Project:
 Sample Date: 30 Sep-24 06:00 Material: POTW Effluent Source: Discharge Monitoring Report
 Receipt Date: 01 Oct-24 07:20 CAS (PC): Station: 001
 Sample Age: 31h Client: John E Egan

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	157063	1000	Yes	Two-Point Interpolation

Test Acceptability Criteria

Attribute	Test Stat	TAC Limits		Overlap	Decision
		Lower	Upper		
Control Resp	1	0.9	>>	Yes	Passes Criteria

Point Estimates

Level	%	95% LCL	95% UCL	Tox Units	95% LCL	95% UCL
LC50	>100	---	---	<1	---	---

48h Survival Rate Summary

Conc-%	Code	Count	Calculated Variate(A/B)							Isotonic Variate	
			Mean	Median	Min	Max	CV%	%Effect	ΣA/ΣB	Mean	%Effect
0	U	4	1.0000	1.0000	1.0000	1.0000	0.00%	0.00%	20/20	1.0000	0.00%
6.25		4	1.0000	1.0000	1.0000	1.0000	0.00%	0.00%	20/20	1.0000	0.00%
12.5		4	1.0000	1.0000	1.0000	1.0000	0.00%	0.00%	20/20	1.0000	0.00%
25		4	1.0000	1.0000	1.0000	1.0000	0.00%	0.00%	20/20	1.0000	0.00%
50		4	1.0000	1.0000	1.0000	1.0000	0.00%	0.00%	20/20	1.0000	0.00%
100		4	1.0000	1.0000	1.0000	1.0000	0.00%	0.00%	20/20	1.0000	0.00%

48h Survival Rate Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	U	1.0000	1.0000	1.0000	1.0000
6.25		1.0000	1.0000	1.0000	1.0000
12.5		1.0000	1.0000	1.0000	1.0000
25		1.0000	1.0000	1.0000	1.0000
50		1.0000	1.0000	1.0000	1.0000
100		1.0000	1.0000	1.0000	1.0000

48h Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	U	5/5	5/5	5/5	5/5
6.25		5/5	5/5	5/5	5/5
12.5		5/5	5/5	5/5	5/5
25		5/5	5/5	5/5	5/5
50		5/5	5/5	5/5	5/5
100		5/5	5/5	5/5	5/5

CETIS Analytical Report

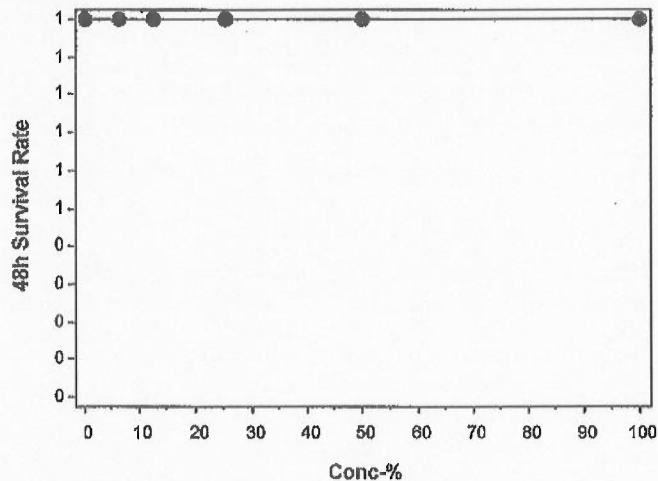
Report Date: 15 Oct-24 13:35 (p 2 of 2)
Test Code/ID: 25967FCA / 06-3062-0106

Ceriodaphnia 48-h Acute Survival Test

EnviroScience

Analysis ID: 14-9895-5726	Endpoint: 48h Survival Rate	CETIS Version: CETIS v2.1.5
Analyzed: 14 Oct-24 13:57	Analysis: Linear Interpolation (ICPIN)	Status Level: 1
Edit Date: 14 Oct-24 0:00	MD5 Hash: 68E117461239090AA7E1427F0F536296	Editor ID: 007-869-049-5

Graphics





ACUTE, 96 HOUR, NON- RENEWAL BIOASSAY:

Organism: Pimephales promelas (FHM)

Project: JOE6

Source: ES CULTURE

No.: 1100310340

Hatch/Age: 8/23/21 1545 7days old

Start Date: 100624 Time: 1200

Diluent: MHR

End Date: 100524 Time: 1115

Sample #: JOE61100624 EFF

Biological Parameters: # Mortalities / # Affected										
test levels →			MHR	DMW	6.25	12.5	25	50	100	
0 hours set-up	Tech	<u>JM</u>	n	A	10	10	10	10	10	10
	Time	<u>1200</u>	n	B	10	10	10	10	10	10
24 hours	Tech	<u>UB</u>	A		0/0	0/0	0/0	0/0	0/0	0/0
	Time	<u>1205</u>	B		0/0	0/0	0/0	0/0	0/0	0/0
48 hours	Tech	<u>CE</u>	A		2/2	0/0	0/0	1/1	1/1	0/0
	Time	<u>1350</u>	B		0/0	0/0	1/1	0/0	1/1	0/0
72 hours	Tech	<u>JM</u>	A		2/2	0/0	0/0	1/1	1/1	1/1
	Time	<u>1220</u>	B		0/0	0/0	1/1	0/0	1/1	0/0
96 hours	Tech	<u>MJ</u>	A		2/2	0/0	0/0	2/2	1/1	1/1
	Time	<u>1115</u>	B		0/0	0/0	1/1	0/0	1/1	0/0

Chemical and Physical Data										
	Tech	Time	Instr.#	MHR	DMW	6.25	12.5	25	50	100
Temp. °C	0 hr	<u>JM</u>	<u>1200</u>	<u>9</u>	<u>24.0</u>	<u>24.0</u>	<u>24.0</u>	<u>24.0</u>	<u>24.0</u>	<u>24.0</u>
	24 hr	<u>UB</u>	<u>1205</u>	<u>9</u>	<u>24.0</u>	<u>24.0</u>	<u>24.0</u>	<u>24.0</u>	<u>24.0</u>	<u>24.0</u>
	48 hr	<u>CE</u>	<u>1350</u>	<u>9</u>	<u>24.7</u>	<u>24.8</u>	<u>24.5</u>	<u>24.7</u>	<u>24.7</u>	<u>24.1</u>
	72 hr	<u>JM</u>	<u>1220</u>	<u>5</u>	<u>25.2</u>	<u>25.2</u>	<u>25.2</u>	<u>25.2</u>	<u>25.1</u>	<u>25.1</u>
	96 hr	<u>MJ</u>	<u>1115</u>	<u>9</u>	<u>24.3</u>	<u>25.0</u>	<u>24.6</u>	<u>24.8</u>	<u>24.7</u>	<u>24.8</u>
cond. µmhos/cm	0 hr	<u>RL</u>	<u>1020</u>	<u>0160</u>	<u>281</u>	<u>169</u>	<u>360</u>	<u>360</u>	<u>434</u>	<u>596</u>
	24 hr	<u>HD</u>	<u>1250</u>	<u>0160</u>	<u>290</u>	<u>177</u>	<u>331</u>	<u>386</u>	<u>443</u>	<u>619</u>
	48 hr	<u>MJ</u>	<u>1015</u>	<u>0160</u>	<u>299</u>	<u>181</u>	<u>366</u>	<u>376</u>	<u>472</u>	<u>621</u>
	72 hr	<u>JM</u>	<u>0930</u>	<u>0160</u>	<u>309</u>	<u>181</u>	<u>346</u>	<u>388</u>	<u>486</u>	<u>633</u>
	96 hr	<u>MJ</u>	<u>0930</u>	<u>0160</u>	<u>308</u>	<u>188</u>	<u>373</u>	<u>399</u>	<u>467</u>	<u>614</u>
DO mg/L	0 hr	<u>RL</u>	<u>1020</u>	<u>OX 4100L</u>	<u>8.6</u>	<u>8.6</u>	<u>8.6</u>	<u>8.6</u>	<u>8.6</u>	<u>8.6</u>
	24 hr	<u>HD</u>	<u>1250</u>	<u>OX 4100L</u>	<u>7.4</u>	<u>7.6</u>	<u>7.5</u>	<u>7.5</u>	<u>7.6</u>	<u>7.6</u>
	48 hr	<u>MJ</u>	<u>1015</u>	<u>OX 4100L</u>	<u>8.6</u>	<u>8.2</u>	<u>8.0</u>	<u>8.1</u>	<u>7.9</u>	<u>8.1</u>
	72 hr	<u>JM</u>	<u>0930</u>	<u>OX 4100L</u>	<u>8.6</u>	<u>8.6</u>	<u>8.4</u>	<u>8.6</u>	<u>8.6</u>	<u>8.6</u>
	96 hr	<u>MJ</u>	<u>0930</u>	<u>OX 4100L</u>	<u>8.2</u>	<u>8.6</u>	<u>8.6</u>	<u>8.0</u>	<u>8.3</u>	<u>8.4</u>
pH s.u.	0 hr	<u>RL</u>	<u>1020</u>	<u>*AZ11A</u>	<u>7.2</u>	<u>7.2</u>	<u>6.7</u>	<u>6.7</u>	<u>6.7</u>	<u>6.7</u>
	24 hr	<u>HD</u>	<u>1250</u>	<u>*AZ11B</u>	<u>7.1</u>	<u>7.0</u>	<u>7.0</u>	<u>6.9</u>	<u>6.9</u>	<u>6.8</u>
	48 hr	<u>MJ</u>	<u>1155</u>	<u>*AZ11A</u>	<u>6.9</u>	<u>7.1</u>	<u>7.1</u>	<u>7.1</u>	<u>7.1</u>	<u>7.2</u>
	72 hr	<u>JM</u>	<u>0945</u>	<u>*AZ11A</u>	<u>7.0</u>	<u>7.1</u>	<u>7.1</u>	<u>7.1</u>	<u>7.1</u>	<u>7.2</u>
	96 hr	<u>MJ</u>	<u>1000</u>	<u>*AZ11A</u>	<u>7.2</u>	<u>7.2</u>	<u>7.2</u>	<u>7.2</u>	<u>7.2</u>	<u>7.3</u>

JAT

CETIS Analytical Report

Report Date: 15 Oct-24 13:34 (p 1 of 2)
 Test Code/ID: 9FB7E4E / 01-8747-6814

Fathead Minnow 96-h Acute Survival Test

EnviroScience

Analysis ID: 17-3681-7163 Endpoint: 96h Survival Rate CETIS Version: CETIS v2.1.5
 Analyzed: 14 Oct-24 13:58 Analysis: Linear Interpolation (ICPIN) Status Level: 1
 Edit Date: 14 Oct-24 0:00 MD5 Hash: EA9FD1B1FB42476241C8E60850F8E856 Editor ID: 007-869-049-5

Batch ID: 05-8399-3761 Test Type: Survival (96h) Analyst:
 Start Date: 01 Oct-24 12:00 Protocol: EPA/821/R-02-012 (2002) Diluent: Upstream of Discharge
 Ending Date: 03 Oct-24 11:15 Species: Pimephales promelas Brine:
 Test Length: 47h Taxon: Actinopterygii Source: In-House Culture Age:

Sample ID: 01-1221-7881 Code: 6B04F19 Project:
 Sample Date: 30 Sep-24 06:00 Material: POTW Effluent Source: Discharge Monitoring Report
 Receipt Date: 01 Oct-24 07:20 CAS (PC): Station: 001
 Sample Age: 30h Client: John E Egan

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	1860145	1000	Yes	Two-Point Interpolation

Test Acceptability Criteria

Attribute	Test Stat	TAC Limits		Overlap	Decision
		Lower	Upper		
Control Resp	0.9	0.9	>>	Yes	Passes Criteria

Point Estimates

Level	%	95% LCL	95% UCL	Tox Units	95% LCL	95% UCL
LC50	>100	---	---	<1	---	---

96h Survival Rate Summary

Conc-%	Code	Count	Calculated Variate(A/B)						Isotonic Variate		
			Mean	Median	Min	Max	CV%	%Effect	ΣA/ΣB	Mean	%Effect
0	U	2	0.9000	0.9000	0.8000	1.0000	15.71%	0.00%	18/20	0.9250	0.00%
6.25		2	0.9500	0.9500	0.9000	1.0000	7.44%	-5.56%	19/20	0.9250	0.00%
12.5		2	0.9000	0.9000	0.8000	1.0000	15.71%	0.00%	18/20	0.9125	1.35%
25		2	0.9000	0.9000	0.9000	0.9000	0.00%	0.00%	18/20	0.9125	1.35%
50		2	0.9000	0.9000	0.9000	0.9000	0.00%	0.00%	18/20	0.9125	1.35%
100		2	0.9500	0.9500	0.9000	1.0000	7.44%	-5.56%	19/20	0.9125	1.35%

96h Survival Rate Detail

Conc-%	Code	Rep 1	Rep 2
0	U	0.8000	1.0000
6.25		1.0000	0.9000
12.5		0.8000	1.0000
25		0.9000	0.9000
50		0.9000	0.9000
100		0.9000	1.0000

96h Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2
0	U	8/10	10/10
6.25		10/10	9/10
12.5		8/10	10/10
25		9/10	9/10
50		9/10	9/10
100		9/10	10/10

✓ AT

CETIS Analytical Report

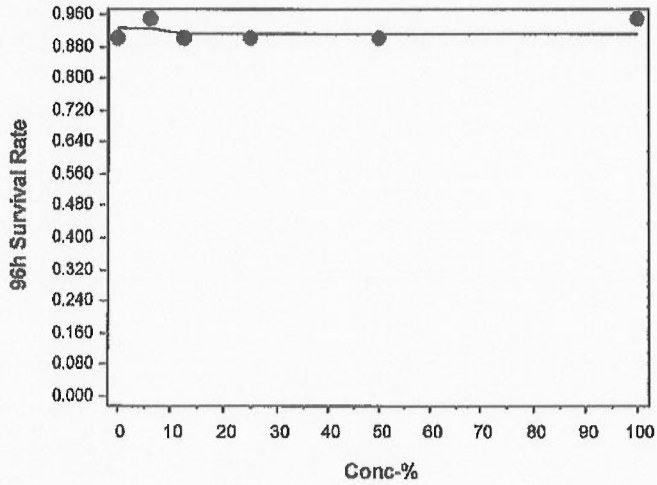
Report Date: 15 Oct-24 13:34 (p 2 of 2)
Test Code/ID: 9FB7E4E / 01-6747-6814

Fathead Minnow 96-h Acute Survival Test

EnviroScience

Analysis ID: 17-3681-7163 Endpoint: 96h Survival Rate CETIS Version: CETIS v2.1.5
Analyzed: 14 Oct-24 13:58 Analysis: Linear Interpolation (ICPIN) Status Level: 1
Edit Date: 14 Oct-24 0:00 MD5 Hash: EA9FD1B1FB42476241C6E60850F8E856 Editor ID: 007-869-049-5

Graphics





Acute, Static Bioassay:
Initial Water Quality Checks (DO, pH, conductivity, chlorine, alkalinity, hardness) and Dilution Record

Client: JOEG
Date: 100124

Permit No.: IL 0036340

Initial Water Quality Data:

Sample Id	D. Oxygen (mg/L-%sat) >4 & <100%?	pH (s.u) 6-9?	Conductivity (µmhos/cm)	TRC _i (mg/L) <0.02?	TRC _A (mg/L)	Alkalinity (mg/L CaCO ₃) MDL = 20 mg/l	Hardness-EDTA (mg/L CaCO ₃) MDL = 5 mg/l
MHRW batch # <u>MHR092824</u>	8.2	7.6	281	LO.02	NA	(2.6) 52	(2.8) 112
<u>JOEG 100124 EFF</u>	8.6	6.6	896	LO.02	-	(4.6) 92	(5.4) 216
INITIALS →	PL	PL	PL	PL		PL	PL

JOEG100124EFF Ammonia: 0.26

Dilution Record:

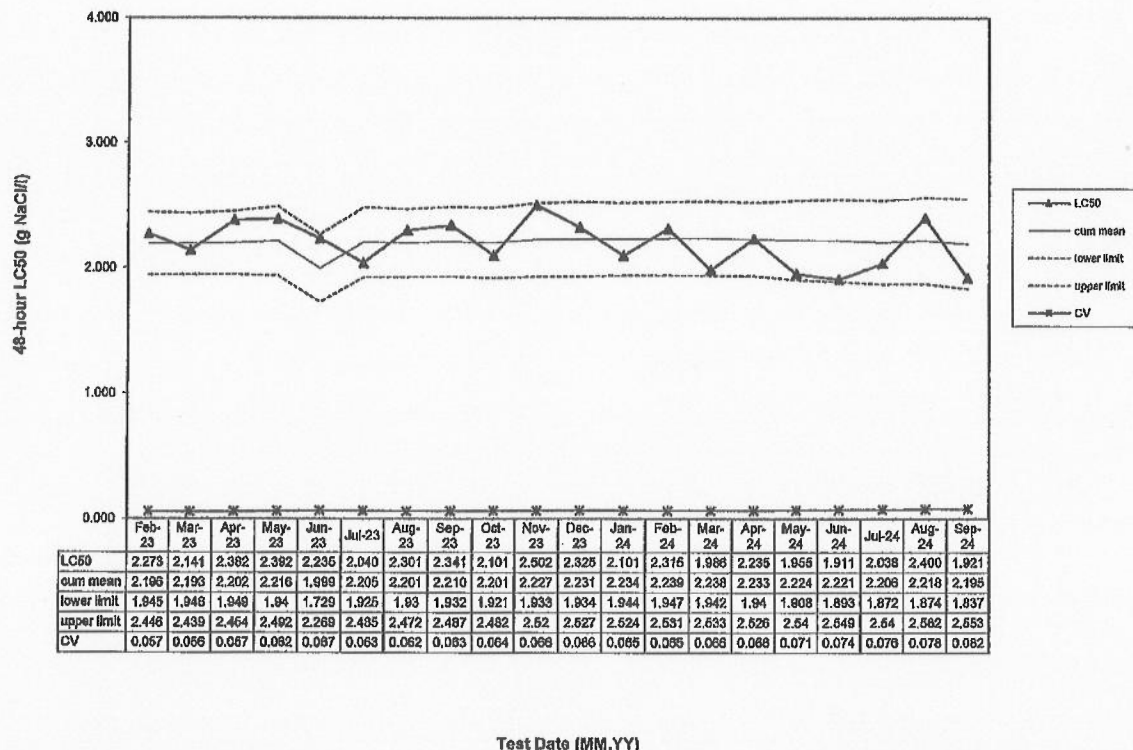
SAMPLE ID	Composited <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	60µm Filtered <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	% DILUTION	INITIATION		RENEWAL <input type="checkbox"/> No	
				Effluent (mL)	Final (mL)	Effluent (mL)	Final (mL)
<u>JOEG100124 EFF</u>							
	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.25	62.5	1000		
	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	12.5	125	↓		
Comments:			25	250			
			50	500			
Methods/Instrumentation: DO: APHA (1998) 4500-O G, OX4100L pH: APHA (1998) 4500-H B, Star A211 A/B Conductivity: APHA (1998) 2510-B, Orion Star A212 Hardness: APHA (1998) 2340-C Alkalinity: APHA (1998) 2320-B TRC: APHA (1998) 4500-CI D, TitraLab At 1000 USEPA Methods: 2000.0; 2002.0			Dilution Water: <input type="checkbox"/> Upstream <input checked="" type="checkbox"/> MHR			<input type="checkbox"/> Upstream <input type="checkbox"/> MHR	
			MHR Batch:	<u>MHR092824</u>			

TRC_i = total residual chlorine, initial value
TRC_A = total residual chlorine, after dechlorination

JAK

Dechlorination procedure: Sodium thiosulfate is used to reduce Total Residual Chlorine by dosing with 6.7 mg Na₂S₂O₃ per mg TRC. A 6.7 mg/ml Na₂S₂O₃ solution is used; dose mL = X mg/L * liters in sample container being treated.

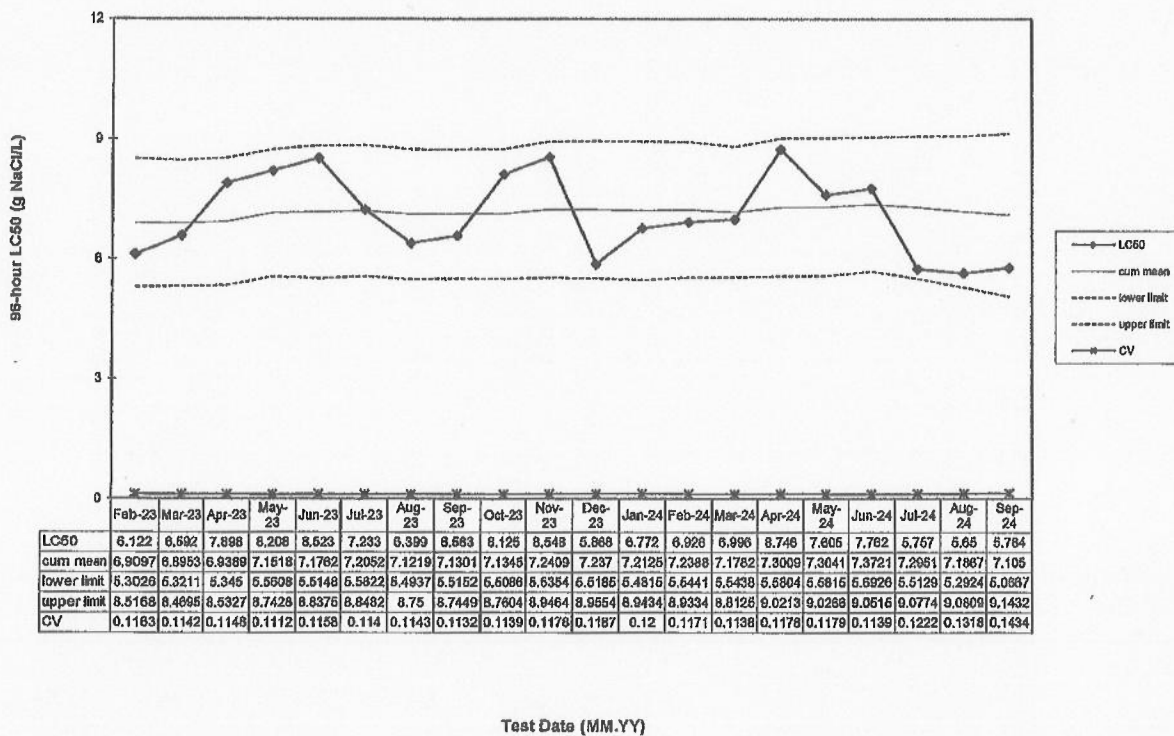
EnviroScience QC Chart - *Ceriodaphnia dubia*
Acute Toxicity endpoint - 25 C



Tests conducted at Stow, OH facility

EnviroScience QC/SRT Chart rev. 10/16/24

EnviroScience QC Chart - *Pimephales promelas*
Acute Toxicity Endpoint - 25 C



Tests conducted at Stow, OH facility

EnviroScience QC/SRT Chart rev. 10/16/24

The WET Sample Chain-of-Custody

SAMPLE COLLECTION			SAMPLE TYPE	SAMPLE LOCATION	SAMPLE Temp °C	ON-SITE SAMPLE STORAGE (0.1-6 °C)	PRINT NAME & SIGNATURE
DATE	TIME	PERSONNEL INITIALS					
9/29/2024	0600	MS	Grab	OUTFALL	21.5	<input checked="" type="radio"/> YES / <input type="radio"/> NO	MARLON SILER <i>MS</i>
9/29/2024	1200	KOM	Grab	OUTFALL	21.5	<input checked="" type="radio"/> YES / <input type="radio"/> NO	KEITH MYRODA <i>Keith J. Myroda</i>
9/29/2024	1800	NS	Grab	OUTFALL	22.0	<input checked="" type="radio"/> YES / <input type="radio"/> NO	NIC SIRESI <i>Nic Siresi</i>
9/29/2024	2400	JM	Grab	Outfall	22.5	<input checked="" type="radio"/> YES / <input type="radio"/> NO	James McCallion <i>JMcCallion</i>
9/30/2024	0600	JM	Grab	Outfall	22.0	<input checked="" type="radio"/> YES / <input type="radio"/> NO	James McCallion <i>JMcCallion</i>

Note: Sample container should be rinsed and should be filled completely leaving no air space between contents & lid. Preserve samples on ice or refrigerator: (0.1-6°C) immediately after collection. Transport samples in ice-packed coolers to the WET Laboratory. The WET laboratory is located in Room LE-100, Lue-Hing R&D Complex.

Indicate if the final effluent was chlorinated/dechlorinated: Yes / No / NA.
 SAMPLES RELINQUISHED BY: Name James McCallion Signature: *JMcCallion* Date/Time: 9/30/24 0602
 SAMPLES TRANSPORTED TO WET LAB. BY Name _____ Signature: _____ Date/Time: _____

FOR WET LABORATORY USE ONLY:
 Sample Received by: Name Nick Edie's Signature *N Edie's* Date/Time 9/29/24 0830

- Samples received with prescribed holding time (within 4 h of collection)? (Not Applicable, if chronic test) 1. Yes / No / (NA) --
- Samples logged in by NK Date 9/29/24 Time 0830 2. Yes / No
- Each sample container labeled with a unique ID? 3. Yes / No
- Were collection times for effluent and receiving water within 1 h of each other? 4. Yes / No (NA)
- Did samples have sufficient volume for analysis? 5. Yes / No
- Samples accepted 6. Yes / No

Special Observations _____

LIMS #	Sample Type/ID	Temp °C	pH	Residual Chlorine (mg/L) Initials	Sodium-thio-sulfate Added YES/NO	Sample Custodian Signature
9683368-A	BMOUT_JE A	2.3	7.13	0 <i>NK</i>	Indicate Total <input checked="" type="radio"/> ml of 5% Sodium-thio-sulfate added Initial	<i>JMcCallion</i>
9683368-B	BMOUT_JE B	2.1	7.13	Total Ammonia (mg-L) ALD Results	<input checked="" type="radio"/> Final	
9683368-C	BMOUT_JE C	2.6	7.18	< 0.300	Residual Cl ₂ reading = <input checked="" type="radio"/> mg/l	
9683368-D	BMOUT_JE D	3.0	7.15		Initial <i>NK</i>	
9683368-E	BMOUT_JE E	2.6	7.14			

Note: Set aside one cubitainer for metals and chemical analyses

Sample Release for Disposal
 Sample released for disposal following analysis on (Date) 10/7/24 by *JMcCallion*
 Samples Discarded by *JMcCallion* Date/Time 10/7/24 1000

Metropolitan Water Reclamation District of Greater Chicago
OCAL CHAIN OF CUSTODY RECORD

From: Nick Kollias Office Location: Stickney

To: **ORGANIC COMPOUNDS ANALYTICAL LABORATORY, EGAN WRP**

COLLECTED			SAMPLE SOURCE/LOCATION	PARAMETER or CFR CATEGORY	LIMS ID	# of CONTAINERS				LAB ID (Lab Use Only)
DATE	TIME (Military)	BY FULL NAME (PRINT)				Vials	Gallons	Quarts	Pints	
9/30/24	0920	Nick Kollias	BMOUT JE		9683368	3	1			
9/30/24		Nick Kollias	Trip Blanks			2				

Samples listed above were stored on site at 0.1 - 6°C immediately after collection, and remained in custody of collector(s) until relinquished.

Container Type (specify vial, gallon, pint, or quart)	Case ID (copy from case label)
Gallon	24-0696
Vials	24-072 ✓

Container Type (specify vial, gallon, pint, or quart)	Case ID (copy from case label)

ITEMS TRANSFERRED	RELINQUISHED BY			RECEIVED BY		
	FULL NAME or COOLER	DATE	TIME (Military)	FULL NAME or COOLER	DATE	TIME (Military)
Indicated above	Jorge Abreu	09/30/24	0944	Cooler D	9/30/24	0945
Indicated above	Cooler D					
Indicated above						
Indicated above						
Indicated above						

Metropolitan Water Reclamation District of Greater Chicago
Custody Transfer Record for Environmental Monitoring and Research Division Samples
 (STFORMSR)

To: Stickney Analytical Lab

Year: 2024

Collection Date: 9/30/2024

Collected By: Nick Kollias

Preparation Date: 9/30/2024

From: Nick Kollias

Project Number/Support Request#: 4652-126-1, SR 15-24

Sample Type (grab/composite): Composite

Prepared By: Nick Kollias

COC Prepared By: Nick Kollias

Collection Information			For Lab Use Only																
Collection Time	Sample Point	LIMS ID	Trace Metals	Ammonia											Temperature °C	Proper Container	Proper Label	Adequate Volume	Comments
0920	BMOUT_JE	9683368	X	X											12.0	✓	✓	✓	
ALD Specified Holding Time (in Days)																			

Chilling process of samples started immediately after collection Y N

Relinquished By	Date	Time	Received By	Date	Time
Jorge P. Aren	9/30/2024	0931	JM	9-30-24	0940

The relinquisher has read and fully understands the M&R Departments-Environmental Monitoring and Research Division's "Ethical and Legal Responsibilities - Version 1, dated March 13, 2019"

Additional Comments:

Metropolitan Water Reclamation District of Greater Chicago
Custody Transfer Record for Environmental Monitoring and Research Division Samples
 (STFORMSR)

To: IWAL

Year: 2024

Collection Date: 9/30/2024
 Collected By: Nick Kollias
 Preparation Date: 9/30/2024

From: Nick Kollias
 Project Number/Support Request#: 4652-126-1, SR 15-24
 Sample Type (grab/composite): Composite

Prepared By: Nick Kollias

COC Prepared By: Nick Kollias

For Lab Use Only				
Temperature °C	Proper Container	Proper Label	Adequate Volume	Comments
10.3				

Collection Information			TCN															
Collection Time	Sample Point	LIMS ID																
0920	BMOUT_JE	9683368	X															
ALD Specified Holding Time (in Days)																		

IR Gun 3
 Thermometer
 221597138

Chilling process of samples started immediately after collection: Y N

Relinquished By	Date	Time	Received By	Date	Time
<i>Jorge Abun</i>	09/30/2024	0933	<i>[Signature]</i>	9/30	1000

The relinquisher has read and fully understands the M&R Departments-Environmental Monitoring and Research Division's "Ethical and Legal Responsibilities - Version 1, dated March 13, 2019"

RECEIVED
 SEP 30 2024

Additional Comments:

Metropolitan Water Reclamation District of Greater Chicago

Custody Transfer Record for Environmental Monitoring and Research Division Samples (STFORMSR)

To: EAL

Year: 2024

Collection Date: 9/30/2024
 Collected By: Nick Kollias
 Preparation Date: 9/30/2024
 Prepared By: Nick Kollias

From: Nick Kollias
 Project Number/Support Request#: 4652-126-1, SR 15-24
 Sample Type (grab/composite): Composite

COC Prepared By: Nick Kollias

For Lab Use Only

Collection Information			Alkalinity	Chloride								Temperature °C	Proper Container	Proper Label	Adequate Volume	Comments
Collection Time	Sample Point	LIMS ID														
0920	BMOUT_JE	9683368	X	X												
ALD Specified Holding Time (in Days)																

Chilling process of samples started immediately after collection Y N

Relinquished By	Date	Time	Received By	Date	Time
Jorge Abreu	09/30/2024	0945	Coder D	9/30/24	0945

The relinquisher has read and fully understands the M&R Departments-Environmental Monitoring and Research Division's "Ethical and Legal Responsibilities - Version 1, dated March 13, 2019"

Additional Comments:

Metropolitan Water Reclamation District of Greater Chicago

Custody Transfer Record for Environmental Monitoring and Research Division Samples (STFORMSR)

To: CAL

Year: 2024

Collection Date: 9/30/2024
 Collected By: Nick Kollias
 Preparation Date: 9/30/2024

From: Nick Kollias
 Project Number/Support Request#: 4652-126-1, SR 15-24
 Sample Type (grab/composite): Composite

Prepared By: Nick Kollias

COC Prepared By: Nick Kollias

For Lab Use Only				
Temperature °C	Proper Container	Proper Label	Adequate Volume	Comments

Collection Information			Total Hg										
Collection Time	Sample Point	LIMS ID											
0920	BMOUT_JE	9683368	X										
ALD Specified Holding Time (in Days)													

Chilling process of samples started immediately after collection Y N

Relinquished By	Date	Time	Received By	Date	Time
Joyce Abu	09/30/2024	0943	Cooper D	9/30/24	0943

The relinquisher has read and fully understands the M&R Departments-Environmental Monitoring and Research Division's "Ethical and Legal Responsibilities - Version 1, dated March 13, 2019"

Additional Comments:

TABLE 8: WATER QUALITY RESULTS OF A JOHN E. EGAN WATER RECLAMATION PLANT FINAL EFFLUENT COMPOSITE
SAMPLE COLLECTED SEPTEMBER 29 - SEPTEMBER 30, 2024, USED FOR WHOLE EFFLUENT TOXICITY TESTING

Sampling point	Analysis	Units	Result
BMOUTJE	Ag	mg/L	<0.00400
BMOUTJE	As	mg/L	<0.00200
BMOUTJE	Ba	mg/L	0.01531
BMOUTJE	Be	mg/L	<0.00200
BMOUTJE	Cd	mg/L	<0.00200
BMOUTJE	Co	mg/L	<0.00200
BMOUTJE	Cr	mg/L	<0.00400
BMOUTJE	Cu	mg/L	0.00485
BMOUTJE	Fe	mg/L	0.06594
BMOUTJE	Mn	mg/L	0.02225
BMOUTJE	Mo	mg/L	0.00281
BMOUTJE	Ni	mg/L	0.00575
BMOUTJE	Pb	mg/L	<0.00200
BMOUTJE	Sb	mg/L	<0.00200
BMOUTJE	Se	mg/L	<0.00400
BMOUTJE	Zn	mg/L	0.0271
BMOUTJE	NH3_N	mg/L	<0.300
BMOUTJE	Al	mg/L	<1.00
BMOUTJE	Ca	mg/L	53.29
BMOUTJE	Hardness	mg/L	218
BMOUTJE	Mg	mg/L	20.68
BMOUTJE	CN	mg/L	0.0066
BMOUTJE	ALKALINITY	mg/L	103.6
BMOUTJE	Cl	mg/L	124.542
BMOUTJE	Final Hg	ug/L	<0.500
BMOUTJE	1,1,1-Trichloroethane	ug/L	<5.000
BMOUTJE	1,1,2,2-Tetrachloroethane	ug/L	<5.000
BMOUTJE	1,1,2-Trichloroethane	ug/L	<5.000
BMOUTJE	1,1-Dichloroethane	ug/L	<5.000
BMOUTJE	1,1-Dichloroethylene	ug/L	<5.000
BMOUTJE	1,2,4-Trichlorobenzene	ug/L	<5.000
BMOUTJE	1,2-Dichlorobenzene	ug/L	<5.000
BMOUTJE	1,2-Dichloroethane	ug/L	<5.000
BMOUTJE	1,2-Dichloropropane	ug/L	<5.000
BMOUTJE	1,2-Diphenylhydrazine	ug/L	<5.000
BMOUTJE	1,3-Dichlorobenzene	ug/L	<5.000
BMOUTJE	1,3-Dichloropropylene	ug/L	<5.000
BMOUTJE	1,4-Dichlorobenzene	ug/L	<5.000
BMOUTJE	2,4,6-Trichlorophenol	ug/L	<10.000
BMOUTJE	2,4-Dichlorophenol	ug/L	<5.000
BMOUTJE	2,4-Dimethylphenol	ug/L	<10.000
BMOUTJE	2,4-Dinitrophenol	ug/L	<40.000
BMOUTJE	2,4-Dinitrotoluene	ug/L	<5.000
BMOUTJE	2,6-Dinitrotoluene	ug/L	<5.000
BMOUTJE	2-Chloroethyl vinyl ether	ug/L	<5.000

TABLE 8: WATER QUALITY RESULTS OF A JOHN E. EGAN WATER RECLAMATION PLANT FINAL EFFLUENT COMPOSITE
SAMPLE COLLECTED SEPTEMBER 29 - SEPTEMBER 30, 2024, USED FOR WHOLE EFFLUENT TOXICITY TESTING

Sampling point	Analysis	Units	Result
BMOUTJE	2-Chloronaphthalene	ug/L	<5.000
BMOUTJE	2-Chlorophenol	ug/L	<10.000
BMOUTJE	2-Nitrophenol	ug/L	<10.000
BMOUTJE	3,3'-Dichlorobenzidine	ug/L	<15.000
BMOUTJE	3,4-Benzofluoranthene	ug/L	<10.000
BMOUTJE	4,4'-DDD	ug/L	<0.050
BMOUTJE	4,4'-DDE	ug/L	<0.130
BMOUTJE	4,4'-DDT	ug/L	<0.050
BMOUTJE	4,6-Dinitro-o-cresol	ug/L	<25.000
BMOUTJE	4-Bromophenyl phenyl ether	ug/L	<5.000
BMOUTJE	4-Chlorophenyl phenyl ether	ug/L	<5.000
BMOUTJE	4-Nitrophenol	ug/L	<20.000
BMOUTJE	Acenaphthene	ug/L	<5.000
BMOUTJE	Acenaphthylene	ug/L	<5.000
BMOUTJE	Acrolein	ug/L	<50.000
BMOUTJE	Acrylonitrile	ug/L	<10.000
BMOUTJE	Aldrin	ug/L	<0.050
BMOUTJE	Anthracene	ug/L	<5.000
BMOUTJE	Benzene	ug/L	<2.000
BMOUTJE	Benzo(a)anthracene	ug/L	<5.000
BMOUTJE	Benzo(a)pyrene	ug/L	<10.000
BMOUTJE	Benzo(g,h,i)perylene	ug/L	<10.000
BMOUTJE	Benzo(k)fluoranthene	ug/L	<5.000
BMOUTJE	Bis(2-chloro-iso-propyl)ether	ug/L	<10.000
BMOUTJE	Bis(2-chloroethoxy)methane	ug/L	<10.000
BMOUTJE	Bis(2-chloroethyl)ether	ug/L	<10.000
BMOUTJE	Bis(2-ethylhexyl)phthalate	ug/L	<20.000
BMOUTJE	Bromoform	ug/L	<5.000
BMOUTJE	Butyl benzyl phthalate	ug/L	<10.000
BMOUTJE	Carbon tetrachloride	ug/L	<5.000
BMOUTJE	Chlorobenzene	ug/L	<5.000
BMOUTJE	Chlorodibromomethane	ug/L	<2.000
BMOUTJE	Chloroethane	ug/L	<5.000
BMOUTJE	Chloroform	ug/L	15.3025
BMOUTJE	Chrysene	ug/L	<5.000
BMOUTJE	Di-n-butyl phthalate	ug/L	<5.000
BMOUTJE	Di-n-octyl phthalate	ug/L	<15.000
BMOUTJE	Dibenzo(a,h)anthracene	ug/L	<15.000
BMOUTJE	Dichlorobromomethane	ug/L	4.3172
BMOUTJE	Dieldrin	ug/L	<0.050
BMOUTJE	Diethyl phthalate	ug/L	<10.000
BMOUTJE	Dimethyl phthalate	ug/L	<5.000
BMOUTJE	Endosulfan I	ug/L	<0.050
BMOUTJE	Endosulfan II	ug/L	<0.050
BMOUTJE	Endosulfan sulfate	ug/L	<0.050

TABLE 8: WATER QUALITY RESULTS OF A JOHN E. EGAN WATER RECLAMATION PLANT FINAL EFFLUENT COMPOSITE
SAMPLE COLLECTED SEPTEMBER 29 - SEPTEMBER 30, 2024, USED FOR WHOLE EFFLUENT TOXICITY TESTING

Sampling point	Analysis	Units	Result
BMOUTJE	Endrin	ug/L	<0.050
BMOUTJE	Endrin aldehyde	ug/L	<0.050
BMOUTJE	Ethylbenzene	ug/L	<2.000
BMOUTJE	Fluoranthene	ug/L	<5.000
BMOUTJE	Fluorene	ug/L	<5.000
BMOUTJE	Heptachlor	ug/L	<0.070
BMOUTJE	Heptachlor epoxide	ug/L	<0.050
BMOUTJE	Hexachlorobenzene	ug/L	<5.000
BMOUTJE	Hexachlorobutadiene	ug/L	<5.000
BMOUTJE	Hexachlorocyclopentadiene	ug/L	<30.000
BMOUTJE	Hexachloroethane	ug/L	<10.000
BMOUTJE	Indeno(1,2,3-cd)pyrene	ug/L	<15.000
BMOUTJE	Isophorone	ug/L	<10.000
BMOUTJE	Methyl bromide	ug/L	<5.000
BMOUTJE	Methyl chloride	ug/L	<5.000
BMOUTJE	Methylene chloride	ug/L	<5.000
BMOUTJE	N-Nitrosodi-n-propylamine	ug/L	<10.000
BMOUTJE	N-Nitrosodimethylamine	ug/L	<5.000
BMOUTJE	N-Nitrosodiphenylamine	ug/L	<5.000
BMOUTJE	Naphthalene	ug/L	<5.000
BMOUTJE	Nitrobenzene	ug/L	<10.000
BMOUTJE	PCB-1016	ug/L	<0.800
BMOUTJE	PCB-1221	ug/L	<0.800
BMOUTJE	PCB-1232	ug/L	<0.800
BMOUTJE	PCB-1242	ug/L	<0.800
BMOUTJE	PCB-1248	ug/L	<0.800
BMOUTJE	PCB-1254	ug/L	<0.800
BMOUTJE	PCB-1260	ug/L	<1.160
BMOUTJE	Pentachlorophenol	ug/L	<30.000
BMOUTJE	Phenanthrene	ug/L	<5.000
BMOUTJE	Phenol	ug/L	<5.000
BMOUTJE	Pyrene	ug/L	<5.000
BMOUTJE	Technical chlordane	ug/L	<0.500
BMOUTJE	Tetrachloroethylene	ug/L	<5.000
BMOUTJE	Toluene	ug/L	<2.000
BMOUTJE	Toxaphene	ug/L	<1.000
BMOUTJE	Trichloroethylene	ug/L	<5.000
BMOUTJE	Trichlorofluoromethane	ug/L	<5.000
BMOUTJE	Vinyl chloride	ug/L	<5.000
BMOUTJE	alpha-BHC	ug/L	<0.050
BMOUTJE	beta-BHC	ug/L	<0.070
BMOUTJE	delta-BHC	ug/L	<0.170
BMOUTJE	gamma-BHC (lindane)	ug/L	<0.050
BMOUTJE	p-Chloro-m-cresol	ug/L	<5.000
BMOUTJE	trans-1,2-Dichloroethylene	ug/L	<5.000