



8100 National Dr. - Little Rock, AR 72209  
501-455-3233 Fax 501-455-6118

27 March 2024

Josh Weaver  
Wynne Water Utilities  
121 East Merriman  
Wynne, AR 72396

Project: Lagoon Discharge Sample  
Project Number: March 2024  
SDG Number: 2403469

Enclosed are the results of analyses for samples received by the laboratory on 20-Mar-24 15:00. If you have any questions concerning this report, please feel free to contact me.

Sample Receipt Information:

<u>Custody Seals</u>	✓
<u>Containers Correct</u>	✓
<u>COC/Labels Agree</u>	✓
<u>Received On Ice</u>	✓
Temperature on Receipt	3.0°C

Sincerely,

A handwritten signature in blue ink that reads "Norma James".

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Norma James  
Technical Director

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**CASE NARRATIVE**

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Sample Delivery Group – 2403469

**One OR more of the qualifiers described below may appear in this report. Qualifiers in RED apply to this SDG (Sample Delivery Group).**

**BOD/CBOD QUALIFIERS:**

<u>Qualifier</u>	<u>Description</u>
B-01	Method requirements for oxygen depletion failed.
<b>B-02</b>	<b>Method requirements for residual oxygen failed.</b>
B-03	Depletion of the blank exceeded method requirements.
B-04	Test replicates show a >30% difference between the highest and lowest values.
B-06	Seed correction failed to meet method requirements.
Cl-1	Estimated result due to treatment for excessive chlorine.
%D2 / E5	Laboratory Control Spike (LCS) and/or Laboratory Control Spike Duplicate (LCSD) failed to recover with acceptance criteria (%D2). Associated results were qualified as "estimated" (E5).

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**ANALYTICAL RESULTS**

Lab Number: 2403469-01  
Sample Name: Lagoon Discharge Grab (Wynne)  
Date/Time Collected: 3/20/24 10:00  
Sample Matrix: Water

<u>Wet Chemistry</u>	<u>Units</u>	<u>Result</u>	<u>Qualifier(s)</u>	<u>Date/Time Analyzed</u>	<u>Batch</u>	<u>Method</u>
Ammonia as N	mg/L	9.99		3/22/24 8:15	B403501	SM 4500-NH3 B,D,C-2011
Fecal Coliforms	MPN/100 mL	1400		3/20/24 15:15	B403485	IDEXX Colilert-18
TSS	mg/L	25.0		3/22/24 9:40	B403479	SM 2540 D-2015
CBOD	mg/L	4.16	B-02	3/21/24 8:38	B403466	SM 5210B-2016

**ANALYTICAL RESULTS**

Lab Number: 2403469-02  
Sample Name: Lagoon Discharge Field Analysis (AR Analytical)  
Date/Time Collected: 3/20/24 11:45  
Sample Matrix: Water

<u>Field Analyses</u>	<u>Units</u>	<u>Result</u>	<u>Qualifier(s)</u>	<u>Date/Time Analyzed</u>	<u>Batch</u>	<u>Method</u>
Dissolved Oxygen	mg/L	7.46		3/20/24 11:45	B403495	SM 4500-O G-2011
pH	S.U.	7.61		3/20/24 11:45	B403493	SM 4500-H+ B-2011
Temperature	°C	16.5		3/20/24 11:45	B403494	SM 2550B-2000



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**QUALITY CONTROL RESULTS**

**Wet Chemistry -- Batch: B403466 (Water)**

Prepared: 21-Mar-24 08:38 By: MB -- Analyzed: 21-Mar-24 08:38 By: KD

<u>Analyte</u>	<u>BLK</u>	<u>LCS / LCSD</u>	<u>MS / MSD</u>	<u>Dup</u>	<u>RPD</u>	<u>Qualifiers</u>
CBOD	<2.00 mg/L	109% / 113%	NA / NA		3.18%	

**Wet Chemistry -- Batch: B403479 (Water)**

Prepared: 21-Mar-24 09:40 By: MH -- Analyzed: 21-Mar-24 09:40 By: MH

<u>Analyte</u>	<u>BLK</u>	<u>LCS / LCSD</u>	<u>MS / MSD</u>	<u>Dup</u>	<u>RPD</u>	<u>Qualifiers</u>
TSS	<1.00 mg/L	95.0% / 92.0%	NA / NA		3.21%	

**Wet Chemistry -- Batch: B403485 (Water)**

Prepared: 20-Mar-24 15:15 By: KJ -- Analyzed: 20-Mar-24 15:15 By: KJ

<u>Analyte</u>	<u>BLK</u>	<u>LCS / LCSD</u>	<u>MS / MSD</u>	<u>Dup</u>	<u>RPD</u>	<u>Qualifiers</u>
Fecal Coliforms	<1 MPN/100 mL	NA / NA	NA / NA	ND MPN/100 mL	NA	

**Field Analyses -- Batch: B403493 (Water)**

Prepared: 20-Mar-24 09:23 By: MH -- Analyzed: 20-Mar-24 09:23 By: MH

<u>Analyte</u>	<u>BLK</u>	<u>LCS / LCSD</u>	<u>MS / MSD</u>	<u>Dup</u>	<u>RPD</u>	<u>Qualifiers</u>
pH (Field)	NA	101% / 101%	NA / NA		0.00%	

**Field Analyses -- Batch: B403494 (Water)**

Prepared: 20-Mar-24 13:50 By: MH -- Analyzed: 20-Mar-24 13:50 By: MH

<u>Analyte</u>	<u>BLK</u>	<u>LCS / LCSD</u>	<u>MS / MSD</u>	<u>Dup</u>	<u>RPD</u>	<u>Qualifiers</u>
Temperature (Field)	NA	NA / NA	NA / NA	17.0 °C	0.00%	

**Field Analyses -- Batch: B403495 (Water)**

Prepared: 20-Mar-24 13:50 By: MH -- Analyzed: 20-Mar-24 13:50 By: MH

<u>Analyte</u>	<u>BLK</u>	<u>LCS / LCSD</u>	<u>MS / MSD</u>	<u>Dup</u>	<u>RPD</u>	<u>Qualifiers</u>
Dissolved Oxygen (Field)	NA	NA / NA	NA / NA	7.65 mg/L	0.787%	

**Wet Chemistry -- Batch: B403501 (Water)**

Prepared: 22-Mar-24 08:15 By: KJ -- Analyzed: 22-Mar-24 08:15 By: KJ

<u>Analyte</u>	<u>BLK</u>	<u>LCS / LCSD</u>	<u>MS / MSD</u>	<u>Dup</u>	<u>RPD</u>	<u>Qualifiers</u>
Ammonia as N	<0.500 mg/L	95.5% / NA	104% / 100%		3.67%	

**QUALIFIER(S)**

\*B-02: Method requirements for residual oxygen failed. Result may be higher than reported. Data is qualified as estimated.

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All Analysis performed according to EPA approved methodology when available :  
SW 846, Revised December, 1996; EPA 600/4-79-020, Revised March, 1983; Standard Methods.  
Instrument calibration and quality control samples performed at or above frequency specified in analytical method.

A handwritten signature in blue ink that reads "Norma James". The signature is written in a cursive style and is positioned above a horizontal line.

Reviewed by: \_\_\_\_\_  
Norma James  
Technical Director



8100 National Dr.  
 Little Rock, AR 72209  
 PHONE: 501-455-3233  
 FAX: 501-455-6118

# CHAIN OF CUSTODY RECORD

CLIENT INFORMATION		Project Description		Turnaround Time		Preservation Codes:							
Wynne Water Utilities 121 East Merriman Wynne, AR 72396		Lagoon Discharge Sample Weekly Sample		1 Day (100%) 2 Day (50%) 3 Day (25%) 5 Day (Routine)		1. Thiosulfate for Dechlorination 2. Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> ), pH < 2 3. Nitric Acid (HNO <sub>3</sub> ), pH < 2 4. Hydrochloric Acid (HCl) 5. Sodium Hydroxide (NaOH), pH > 12 6. Bottle Type Code							
Attn: Josh Weaver		Telephone: 870-238-2751 Fax: 870-238-2044 Email: jweaver.wvu@gmail.com		Preservative Code: Bottle Type:		<b>TEST PARAMETERS</b> 1 1 1,2 1,4 P P P P Temperature Field (PH, D.O.) CBOD, TSS Ammonia Fecal Coliform							
Sampler(s) Signature: <i>Josh Weaver</i>		Sampler(s) Printed: <i>Josh Weaver</i>		Number of Bottles		Arkansas Analytical Work Order Number: <i>2403409</i>							
Field Number		Date/s		Time/s		Grab		Comp		Matrix		IDENTIFICATION/ DESCRIPTION	
		3/20		10 AM		X				Water		Lagoon Discharge Grab (Wynne)	
		3/20/24		1145		X				Water		Lagoon Discharge Field Analysis (AR Analytical)	
ONSITE MEASUREMENTS by Arkansas Analytical -- DATE: 3/20/24													
pH (S.U.)		Time		Temperature (°C)		Dissolved Oxygen (mg/L)		Time		Sample		Duplicate	
7.6		11:45		16.5		1.150		11:50		767		706	
7.4		11:45		19.6		1.150		11:50		746		920	
7.2		11:45		19.6		1.150		11:50		746		920	
7.1		11:45		19.6		1.150		11:50		746		920	
7.0		11:45		19.6		1.150		11:50		746		920	
6.9		11:45		19.6		1.150		11:50		746		920	
6.8		11:45		19.6		1.150		11:50		746		920	
6.7		11:45		19.6		1.150		11:50		746		920	
6.6		11:45		19.6		1.150		11:50		746		920	
6.5		11:45		19.6		1.150		11:50		746		920	
6.4		11:45		19.6		1.150		11:50		746		920	
6.3		11:45		19.6		1.150		11:50		746		920	
6.2		11:45		19.6		1.150		11:50		746		920	
6.1		11:45		19.6		1.150		11:50		746		920	
6.0		11:45		19.6		1.150		11:50		746		920	
5.9		11:45		19.6		1.150		11:50		746		920	
5.8		11:45		19.6		1.150		11:50		746		920	
5.7		11:45		19.6		1.150		11:50		746		920	
5.6		11:45		19.6		1.150		11:50		746		920	
5.5		11:45		19.6		1.150		11:50		746		920	
5.4		11:45		19.6		1.150		11:50		746		920	
5.3		11:45		19.6		1.150		11:50		746		920	
5.2		11:45		19.6		1.150		11:50		746		920	
5.1		11:45		19.6		1.150		11:50		746		920	
5.0		11:45		19.6		1.150		11:50		746		920	
4.9		11:45		19.6		1.150		11:50		746		920	
4.8		11:45		19.6		1.150		11:50		746		920	
4.7		11:45		19.6		1.150		11:50		746		920	
4.6		11:45		19.6		1.150		11:50		746		920	
4.5		11:45		19.6		1.150		11:50		746		920	
4.4		11:45		19.6		1.150		11:50		746		920	
4.3		11:45		19.6		1.150		11:50		746		920	
4.2		11:45		19.6		1.150		11:50		746		920	
4.1		11:45		19.6		1.150		11:50		746		920	
4.0		11:45		19.6		1.150		11:50		746		920	
3.9		11:45		19.6		1.150		11:50		746		920	
3.8		11:45		19.6		1.150		11:50		746		920	
3.7		11:45		19.6		1.150		11:50		746		920	
3.6		11:45		19.6		1.150		11:50		746		920	
3.5		11:45		19.6		1.150		11:50		746		920	
3.4		11:45		19.6		1.150		11:50		746		920	
3.3		11:45		19.6		1.150		11:50		746		920	
3.2		11:45		19.6		1.150		11:50		746		920	
3.1		11:45		19.6		1.150		11:50		746		920	
3.0		11:45		19.6		1.150		11:50		746		920	
2.9		11:45		19.6		1.150		11:50		746		920	
2.8		11:45		19.6		1.150		11:50		746		920	
2.7		11:45		19.6		1.150		11:50		746		920	
2.6		11:45		19.6		1.150		11:50		746		920	
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2.4		11:45		19.6		1.150		11:50		746		920	
2.3		11:45		19.6		1.150		11:50		746		920	
2.2		11:45		19.6		1.150		11:50		746		920	
2.1		11:45		19.6		1.150		11:50		746		920	
2.0		11:45		19.6		1.150		11:50		746		920	
1.9		11:45		19.6		1.150		11:50		746		920	
1.8		11:45		19.6		1.150		11:50		746		920	
1.7		11:45		19.6		1.150		11:50		746		920	
1.6		11:45		19.6		1.150		11:50		746		920	
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1.4		11:45		19.6		1.150		11:50		746		920	
1.3		11:45		19.6		1.150		11:50		746		920	
1.2		11:45		19.6		1.150		11:50		746		920	
1.1		11:45		19.6		1.150		11:50		746		920	
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-0.1		11:45		19.6		1.150		11:50		746		920	
-0.2		11:45		19.6		1.150		11:50		746		920	
-0.3		11:45		19.6		1.150		11:50		746		920	
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-1.1		11:45		19.6		1.150		11:50		746		920	
-1.2		11:45		19.6		1.150		11:50		746		920	
-1.3		11:45		19.6		1.150		11:50		746		920	
-1.4		11:45		19.6		1.150		11:50		746		920	
-1.5		11:45		19.6		1.150		11:50		746		920	
-1.6		11:45		19.6		1.150		11:50		746		920	
-1.7		11:45		19.6		1.150		11:50		746		920	
-1.8		11:45		19.6		1.150		11:50		746		920	
-1.9		11:45		19.6		1.150		11:50		746		920	
-2.0		11:45		19.6		1.150		11:50		746		920	
-2.1		11:45		19.6		1.150		11:50		746		920	
-2.2		11:45		19.6		1.150		11:50		746		920	
-2.3		11:45		19.6		1.150		11:50		746		920	
-2.4		11:45		19.6		1.150		11:50		746		920	
-2.5		11:45		19.6		1.150		11:50		746		920	
-2.6		11:45		19.6		1.150		11:50		746		920	
-2.7		11:45		19.6		1.150		11:50		746		920	
-2.8		11:45		19.6		1.150		11:50		746		920	
-2.9		11:45		19.6		1.150		11:50		746		920	
-3.0		11:45		19.6		1.150		11:50		746		920	
-3.1		11:45		19.6		1.150		11:50		746		920	
-3.2		11:45		19.6		1.150		11:50		746		920	
-3.3		11:45		19.6		1.150		11:50		746		920	
-3.4		11:45		19.6		1.150		11:50		746		920	
-3.5		11:45		19.6		1.150		11:50		746		920	
-3.6		11:45		19.6		1.150		11:50		746		920	
-3.7		11:45		19.6		1.150		11:50		746		920	
-3.8		11:45		19.6		1.150		11:50		746		920	
-3.9		11:45		19.6		1.150		11:50		746		920	