

10 May 2024

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

Project: Lagoon Discharge Sample Project Number: May 2024 SDG Number: 2405012

Enclosed are the results of analyses for samples received by the laboratory on 01-May-24 14:32. If you have any questions concerning this report, please feel free to contact me.

Sample Receipt Information:

Custody Seals	~
Containers Correct	~
COC/Labels Agree	~
Received On Ice	~
Temperature on Receipt	3.0°C

Sincerely,

Norma

Norma James Technical Director

Josh Weaver Wynne Water Utilities 121 East Merriman Wynne, AR 72396 Project: Lagoon Discharge Sample Project Number: May 2024 Date Received: 01-May-24 14:32

### CASE NARRATIVE

Sample Delivery Group - 2405012

# Arkansas Analytical

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

### BOD/CBOD QUALIFIERS:

<u>Qualifier</u>	Description
B-01	Method requirements for oxygen depletion failed.
B-02	Method requirements for residual oxygen failed.
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 failied to meet method requirements.
CI-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).

Josh Weaver Wynne Water Utilities 121 East Merriman Wynne, AR 72396 Project: Lagoon Discharge Sample Project Number: May 2024 Date Received: 01-May-24 14:32

### ANALYTICAL RESULTS

Lab Number: Sample Name: Date/Time Collected: Sample Matrix:	Lagoor	2405012-01 n Discharge Grab (V 5/1/24 10:00 Water	Vynne)			
Wet Chemistry	<u>Units</u>	<u>Result</u>	<u>Qualifier(s)</u>	Date/Time Analyzed	<b>Batch</b>	<u>Method</u>
Ammonia as N	mg/L	19.8		5/3/24 8:10	B405073	SM 4500-NH3 B,D,C-2011
Fecal Coliforms	MPN/100 mL	11		5/1/24 15:10	B405036	IDEXX Colilert-18
TSS	mg/L	8.50		5/2/24 8:03	B405022	SM 2540 D-2015
CBOD	mg/L	< 2.00	B-01	5/2/24 7:02	B405018	SM 5210B-2016

Lab Number: Sample Name: Date/Time Collected: Sample Matrix:	Lagoon D	2405012-02 ischarge Field Analysis (AR 5/1/24 11:03 Water	Analytical)			
Field Analyses	<u>Units</u>	Result	Qualifier(s)	Date/Time Analyzed	<b>Batch</b>	<u>Method</u>
Dissolved Oxygen	mg/L	5.05		5/1/24 11:05	B405147	SM 4500-O G-2011
pН	S.U.	7.71		5/1/24 11:05	B405145	SM 4500-H+ B-2011
Temperature	°C	25.3		5/1/24 11:05	B405146	SM 2550B-2000

Josh Weaver Wynne Water Utilities 121 East Merriman Wynne, AR 72396 Project: Lagoon Discharge Sample Project Number: May 2024 Date Received: 01-May-24 14:32



### QUALITY CONTROL RESULTS

	Prepared: 02	Wet Chemistry Bate -May-24 07:02 By: KD	ch: B405018 (Water) Analyzed: 02-May-24 07:፡	02 Bv: KD		
Analyte	BLK	LCS / LCSD	<u>MS / MSD</u>	<u>Dup</u>	RPD	Qualifier
CBOD	<2.00 mg/L	111% / 107%	NA / NA		3.76%	
		Wet Chemistry Bato	ch: B405022 (Water)			
	Prepared: 02	-May-24 08:03 By: BH	Analyzed: 02-May-24 08:	03 By: BH		
<u>Analyte</u>	<u>BLK</u>	LCS / LCSD	MS / MSD	Dup	RPD	<b>Qualifiers</b>
TSS	<1.00 mg/L	106% / 106%	NA / NA		0.00%	
		Wet Chemistry Batc	:h: B405036 (Water)			
	Prepared: 01	-May-24 15:10 By: KJ	Analyzed: 01-May-24 15:	10 By: KJ		
<u>Analyte</u>	<u>BLK</u>	LCS / LCSD	<u>MS / MSD</u>	Dup	<u>RPD</u>	Qualifiers
Fecal Coliforms	<1 MPN/100 mL	NA / NA	NA / NA	1 MPN/100 mL	66.7%	
	Prepared: 03	Wet Chemistry Bato May-24 08:10 By: KJ	:h: B405073 (Water) Analyzed: 03-May-24 08:	10 By: KJ		
Analyte	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
Ammonia as N	<0.500 mg/L	92.6% / NA	98.0% / 95.8%		2.31%	
		Field Analyses Bato				
	Prepared: 01-	May-24 07:56 By: SR A	Analyzed: 01-May-24 07:5	6 By: CNW		
Analyte	<u>BLK</u>	LCS / LCSD	<u>MS / MSD</u>	Dup	<u>RPD</u>	Qualifiers
pH (Field)	NA	100% / 100%	NA / NA		0.285%	
		Field Analyses Bato				
			Analyzed: 01-May-24 11:0	-		
Analyte	BLK	LCS / LCSD	MS / MSD	Dup	<u>RPD</u>	<u>Qualifiers</u>
Temperature (Field)	NA	NA / NA	NA / NA	25.1 °C	0.794%	
	Prepared: 01-N	Field Analyses Bato lay-24 11:06 By: CNW	:h: B405147 (Water) Analyzed: 01-May-24 11:(	06 By: CNW		
Analyte	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
Dissolved Oxygen (Field)	NA	NA / NA	NA / NA	5.09 mg/L	0.789%	

### QUALIFIER(S)

\*B-01: Method requirements for oxygen depletion failed. Data is qualified as estimated.

Arkansas Analytical

Josh Weaver Wynne Water Utilities 121 East Merriman Wynne, AR 72396 Project: Lagoon Discharge Sample Project Number: May 2024 Date Received: 01-May-24 14:32

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.

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Reviewed by:



16 May 2024

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

Project: Lagoon Discharge Sample Project Number: May 2024 SDG Number: 2405239

Enclosed are the results of analyses for samples received by the laboratory on 08-May-24 14:49. If you have any questions concerning this report, please feel free to contact me.

Sample Receipt Information:

Custody Seals	~
Containers Correct	~
COC/Labels Agree	~
Received On Ice	~
Temperature on Receipt	3.0°C

Sincerely,

Norma

Norma James Technical Director



Josh Weaver Wynne Water Utilities 121 East Merriman Wynne, AR 72396 Project: Lagoon Discharge Sample Project Number: May 2024 Date Received: 08-May-24 14:49

### CASE NARRATIVE

Sample Delivery Group - 2405239

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

Holding Time Exceedance (E2-PF): Estimated Result; Sample was not able to be analyzed within required holding time requirements due to power failure.



Josh Weaver Wynne Water Utilities 121 East Merriman Wynne, AR 72396 Project: Lagoon Discharge Sample Project Number: May 2024 Date Received: 08-May-24 14:49

### ANALYTICAL RESULTS

Lab Number: Sample Name: Date/Time Collected: Sample Matrix:	Lagoor	2405239-01 n Discharge Grab (V 5/8/24 10:00 Water	Vynne)			
Wet Chemistry	<u>Units</u>	<u>Result</u>	<u>Qualifier(s)</u>	Date/Time Analyzed	Batch	Method
Ammonia as N	mg/L	19.3		5/13/24 8:30	B405231	SM 4500-NH3 B,D,C-2011
Fecal Coliforms	MPN/100 mL	21	E2-PF	5/9/24 14:10	B405222	IDEXX Colilert-18
TSS	mg/L	10.0		5/14/24 7:33	B405257	SM 2540 D-2015
CBOD	mg/L	4.33		5/10/24 6:56	B405188	SM 5210B-2016

Lab Number: Sample Name: Date/Time Collected: Sample Matrix:	Lagoon D	2405239-02 Discharge Field Analysis (AR 5/8/24 11:01 Water	R Analytical)			
Field Analyses	<u>Units</u>	<u>Result</u>	<u>Qualifier(s)</u>	Date/Time Analyzed	<b>Batch</b>	<u>Method</u>
Dissolved Oxygen	mg/L	5.43		5/8/24 11:04	B405320	SM 4500-O G-2011
pH	S.U.	7.73		5/8/24 11:03	B405318	SM 4500-H+ B-2011
Temperature	°C	25.9		5/8/24 11:03	B405319	SM 2550B-2000



**Josh Weaver** Wynne Water Utilities 121 East Merriman Wynne, AR 72396 Project: Lagoon Discharge Sample Project Number: May 2024 Date Received: 08-May-24 14:49



### QUALITY CONTROL RESULTS

	Prepared: 10	Wet Chemistry Bate -May-24 06:56 By: MB	ch: B405188 (Water) Analyzed: 10-May-24 06	:56 By: KD		
Analyte	BLK	LCS / LCSD	MS / MSD		RPD	Qualifiers
CBOD	<2.00 mg/L	127% / 117%	NA / NA		8.21%	
		Wet Chemistry Bato				
			Analyzed: 09-May-24 14			
Analyte	<u>BLK</u> <1 MPN/100 mL		MS / MSD		<u>RPD</u>	Qualifiers
Fecal Coliforms	< T MEN/100 HIL	NA / NA	NA / NA	ND MPN/100 mL	NA	
	Prepared: 13	Wet Chemistry Bato 3-May-24 08:30 By: KJ	:h: B405231 (Water) Analyzed: 13-May-24 08	:30 By: KJ		
Analyte	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
Ammonia as N	<0.500 mg/L	87.1% / NA	87.2% / 83.2%		4.54%	
	Prepared: 14	Wet Chemistry Bato -Mav-24 07:33 Bv: MB	:h: B405257 (Water) Analyzed: 14-May-24 07	:33 Bv: MB		
Analyte	BLK	LCS / LCSD	MS / MSD	<u>Dup</u>	RPD	Qualifiers
TSS	<1.00 mg/L	100% / 108%	NA / NA		7.69%	
	Droporod: 09	Field Analyses Bato	:h: B405318 (Water) Analyzed: 08-May-24 08	00 By// SB		
Analyta	BLK		MS / MSD	<u>Dup</u>	RPD	Qualifiers
<u>Analyte</u> pH (Field)	NA	<u>LCS / LCSD</u> 99.7% / 99.7%	NA / NA	Dup	0.00%	Quaimers
	NA	99.170 / 99.170			0.00 /8	
	Prepared: 08	Field Analyses Bato May-24 09:09 By: SR	:h: B405319 (Water) Analyzed: 08-May-24 09	:09 Bv: SR		
Analyte	BLK	LCS / LCSD	MS / MSD	<u>Dup</u>	RPD	Qualifiers
Temperature (Field)	NA	NA / NA	NA / NA	21.7 °C	0.917%	
		Field Analyses Bato				
	Prepared: 08	-May-24 09:09 By: SR	Analyzed: 08-May-24 09	:09 By: SR		
Analyte	<u>BLK</u>	LCS / LCSD	<u>MS / MSD</u>	Dup	<u>RPD</u>	<u>Qualifiers</u>
Dissolved Oxygen (Field)	NA	NA / NA	NA / NA	7.84 mg/L	0.897%	
UALIFIER(S)						

\*E2-PF: Estimated Result; Sample was not able to be analyzed within required holding time requirements due to power failure.

Arkansas Analytical

Josh Weaver Wynne Water Utilities 121 East Merriman Wynne, AR 72396 Project: Lagoon Discharge Sample Project Number: May 2024 Date Received: 08-May-24 14:49

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.

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Reviewed by:

		BY LAB ONLY	FOR COMPLETION BY L						Revision 3
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		HHT# ע		6. TEMPERATURE GUN ID:	t all	in the	116	5	Lack
		<mark>(</mark> റ്	TEMPERATURE ON RECEIPT:	5.	Sundhur	124	2/8/2	1	11
	No	Yes	NICE	(Signature) 4. RECEIVED ON ICE:	4. Received by lab: (Signature)		Date/Time	Relinguished by: (Signature)	3. Relinguished
	No	Yes	AGREE:		121010				
	No	Yes	CORRECT:	10 54 2. CONTAINERS CORRECT:	5				N/V
	No	VYes	ALS:	1. CUSTODY SEALS:	A A		5/8		Ach
REMARKS / SAMPLE COMMENTS	AB	ECEIPT IN L	SAMPLE CONDITION UPON RECEIPT IN LAB		2. Received by: (Signature)		Date/Time	Relinguished by: (Signature)	1. Relinquished
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		2007		- 1					
JCK Clana	24	76 0	212	V.					
	0800 7	0759	1105	Time 1103					
0754 Time QC Time	22.5 4	22.5	26.0	Temperature (°C) 25.9					
pH / Time D.O. Chlorine	0500 0	0759	1165	Time 14 6 3					
Field Calibration Record DATE: 5/8/27	853	6.98	7.75	рH (S.U.) 7.73					
	QC Duplicate	QC	Duplicate	Sample					
	12/8/27	cal DATE	Arkansas Analyti	ONSITE MEASUREMENTS by Arkansas Analytical DATE:					
02		×	is (AR Analytical)	Water Lagoon Discharge Field Analysis (AR Analyt	0 Water	×	1101	\$ 2/8/5	
01	×	×	e)	Water Lagoon Discharge Grab (Wynne)	3 Water	×	10.Am	3/5	
	A	Т		IDENTIFICATION/ DESCRIPTION	Comp Bottles Matrix	Grab	I Ime/s	Date/s	Number
2405720	mmon ecal C	ield (p emper BOD,		SAMPLE			SAMPLE COLLECTION	SAMPLE	Field
Order Number:	ia	ature			Sampler(s) Printed:	Samp	N	gnature	Sampler(s) Signature
Arkansas Analytical Work		e)	Shon Randl-s	Josh Weaver Shon K	Josh	(	hpe	the way	Jer
V = Septum; A = Amber	P	ף 	Bottle Type:	Email: jweaver.wwu@gmail.com					
G = Glass; P = Plastic	1,2 1,4		Preservative Code:	Fax: 870-238-2044				aver	Attn: Josh Weaver
RAMETERS Bottle Type Code	TEST PA		5 Day (Routine)	Telephone: 870-238-2751 (					
6. Sodium Hydroxide (NaOH), pH > 12	Nitric Acid (HNO <sub>3</sub> ), pH < 2	3. Nitric Acid	3 Day (25%)	Reporting Information				396	Wynne, AR 72396
5. Hydrochloric Acid(HCl)	Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> ), pH < 2	2. Sulfuric Aci	2 Day (50%)	Weekly Sample				man	121 East Merriman
4. Thiosulfate for Dechlorination	Cool, 6 Degrees Centigrade	1. Cool, 6 Deg	1 Day (100%)	Lagoon Discharge Sample				Utilities	Wynne Water Utilities
Preservation Codes:			Turnaround Time	Project Description				RMATION	CLIENT INFORMATION
F CUSTODY RECORD	USTC	Т С	CHAIN O	CH	Little Rock, AR 72209 PHONE: 501-455-3233 FAX: 501-455-6118	Little Rock, AR 722 PHONE: 501-455-3: FAX: 501-455-6118	(S)	Arkansas Analytical Inc.	Arkansa
					nal Dr.	8100 National Dr.	/		



23 May 2024

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

Project: Lagoon Discharge Sample Project Number: May 2024 SDG Number: 2405413

Enclosed are the results of analyses for samples received by the laboratory on 15-May-24 15:45. If you have any questions concerning this report, please feel free to contact me.

Sample Receipt Information:

Custody Seals	~
Containers Correct	~
COC/Labels Agree	~
Received On Ice	~
Temperature on Receipt	1.0°C

Sincerely,

Norma

Norma James Technical Director

Josh Weaver Wynne Water Utilities 121 East Merriman Wynne, AR 72396 Project: Lagoon Discharge Sample Project Number: May 2024 Date Received: 15-May-24 15:45

### ANALYTICAL RESULTS

Lab Number: Sample Name: Date/Time Collected: Sample Matrix:	Lagoo	2405413-01 n Discharge Grab (V 5/15/24 10:00 Water	Vynne)			
Wet Chemistry	<u>Units</u>	Result	<u>Qualifier(s)</u>	Date/Time Analyzed	Batch	<u>Method</u>
Ammonia as N	mg/L	22.9		5/20/24 13:27	B405414	SM 4500-NH3 B,D,C-2011
Fecal Coliforms	MPN/100 mL	86		5/15/24 16:00	B405409	IDEXX Colilert-18
TSS	mg/L	23.0		5/17/24 16:19	B405361	SM 2540 D-2015
CBOD	mg/L	3.53		5/17/24 6:59	B405364	SM 5210B-2016

Lab Number: Sample Name: Date/Time Collected: Sample Matrix:	Lagoon I	2405413-02 Discharge Field Analysis (AR 5/15/24 12:35 Water	Analytical)			
Field Analyses	<u>Units</u>	<u>Result</u>	<u>Qualifier(s)</u>	Date/Time Analyzed	<b>Batch</b>	Method
Dissolved Oxygen	mg/L	6.61		5/15/24 12:35	B405449	SM 4500-O G-2011
рН	S.U.	7.76		5/15/24 12:35	B405446	SM 4500-H+ B-2011
Temperature	°C	25.6		5/15/24 12:35	B405448	SM 2550B-2000

Josh Weaver Wynne Water Utilities 121 East Merriman Wynne, AR 72396 Project: Lagoon Discharge Sample Project Number: May 2024 Date Received: 15-May-24 15:45



### QUALITY CONTROL RESULTS

	Prepared: 17	Wet Chemistry Bate Mav-24 11:00 Bv: MH	ch: B405361 (Water) Analyzed: 17-May-24 16	:19 Bv: MH		
Analyte	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
TSS	<1.00 mg/L	111% / 117%	NA / NA		5.26%	
		Wet Chemistry Bate	ch: B405364 (Water)			
	Prepared: 17	'-May-24 06:59 By: KD	Analyzed: 17-May-24 06	:59 By: KD		
<u>Analyte</u>	<u>BLK</u>	LCS / LCSD	MS / MSD	Dup	<u>RPD</u>	Qualifiers
CBOD	<2.00 mg/L	125% / 127%	NA / NA		1.63%	
		Wet Chemistry Bate				
		5-May-24 15:45 By: KJ	Analyzed: 15-May-24 15			
<u>Analyte</u>	BLK	LCS / LCSD	<u>MS / MSD</u>	Dup	<u>RPD</u>	Qualifiers
Fecal Coliforms	<1 MPN/100 mL	NA / NA	NA / NA	150 MPN/100 mL	0.00%	
		Wet Chemistry Bate	ch: B405414 (Water)			
	Prepared: 20	)-May-24 08:14 By: KJ	Analyzed: 20-May-24 08	:14 By: KJ		
<u>Analyte</u>	<u>BLK</u>	LCS / LCSD	<u>MS / MSD</u>	Dup	RPD	<b>Qualifiers</b>
Ammonia as N	<0.500 mg/L	92.0% / NA	90.0% / 93.0%		3.26%	
	Prepared: 15	Field Analyses Bate -May-24 08:28 By: MH	ch: B405446 (Water) Analyzed: 15-May-24 08	:28 By: MH		
Analyte	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
pH (Field)	NA	100% / 100%	NA / NA		0.143%	
		Field Analyses Bate				
	Prepared: 20	-May-24 14:35 By: MH	Analyzed: 20-May-24 14	:35 By: MH		
		LCS / LCSD	MS / MSD	Dup	RPD	<u>Qualifiers</u>
Analyte	BLK					
<u>Analyte</u> Temperature (Field)	<u>BLK</u> NA	NA / NA	NA / NA	25.8 °C	0.388%	
	NA	NA / NA Field Analyses Bate	ch: B405449 (Water)		0.388%	
	NA	NA / NA Field Analyses Bate			0.388%	Qualifiers

Arkansas Analytical

Josh Weaver Wynne Water Utilities 121 East Merriman Wynne, AR 72396 Project: Lagoon Discharge Sample Project Number: May 2024 Date Received: 15-May-24 15:45

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.

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Reviewed by:

Arkansas Analytical	Little Rock, AR 72209 PHONE: 501-455-3233 FAX: 501-455-6118		CHAIN O	F CUS	<b>FODY</b>	F CUSTODY RECORD
CLIENT INFORMATION		Project Description	Turnaround Time		Preservation Codes:	odes:
Wynne Water Utilities		Lagoon Discharge Sample	1 Day (100%) 1.	Cool, 6 Degrees Centigrade	4.	Thiosulfate for Dechlorination
121 East Merriman		Weekly Sample	2.	Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> ), pH < 2	5.	Hydrochloric Acid(HCl)
Wynne, AR 72396		Reporting Information	3.	Nitric Acid (HNO <sub>3</sub> ), pH < 2		6. Sodium Hydroxide (NaOH), pH > 12
		Telephone: 870-238-2751 (	5 Day (Routine)	TEST	PARAMETE	R S Bottle Type Code
Attn: Josh Weaver		Fax: 870-238-2044	Preservative Code:	1 1 1,2 1,4	4	G = Glass; P = Plastic
2		Email: jweaver.wwu@gmail.com	Bottle Type:	4 4 4 <b>9</b>		V = Septum; A = Amber
111						
Marine	Josh	Josh Wear	)		1	Arkansas
Sampler(s) Signature	Sampler(s) Printed	MANY HANNAN	I, D.C	ture) SS	liforn	Order Number:
Field SAMPLE COLLECTION	ON	SAMPLE	d (pb	npera DD, T monia	al Co	
Number Date/s Time/s	e/S Grab Comp Bottles Matrix	IDENTIFICATION/ DESCRIPTION		Ter CB Am	Fec	240543
S/IS IDAN	X 3	Water Lagoon Discharge Grab (Wynne)	ie)	× × ×	-	01
5, 15724 1235	X 0 Wa	Water Lagoon Discharge Field Analysis (AR Analytical)	(AR Analytical)	×		02
		ONSITE MEASUREMENTS by Arkansas Analytical	/ Arkansas Analytica	I DATESACAL		
		Sample	Duplicate	ac ac	ate	
		pH (S.U.) 7756	7.73 (	10/ 000	Field Calibration Record	1 Record DATE: JS24
		Time / 225	1240 8	818 52	pH / Time	D.O. Chlorine
		Temperature (°C)	250	40 240	4	Time QC Time
		Dissolved Oxygen	1240	28 828	7	2 1
		Time 1235	1240		820 .	
1. Relinguished by: (Signature) Date/Time	2. Received by: (Signature)		SAMPLE CONDITION UPON RECEIPT IN LAB	CEIPT IN LAB	REMARKS /	REMARKS / SAMPLE COMMENTS
11.5	1250	1. CUSTODY SEALS:	EALS:	Yes No		
10/20	151/5	2. CONTAINERS CORRECT:	S CORRECT:	Yes No		
	XX	3. COC/LABELS AGREE:	AGREE:	Yes No		
3. Relinquished by: (Signature) Date/Time	4.	Received by lab: (Signature) 4. RECEIVED ON ICE:		YesNo		
154-	Sidne	5.	TEMPERATURE ON RECEIPT:			
0		6. TEMPERATURE GUN ID:		ннт#5		
Revision 3			FOR COMPLETION BY LA	BY LAB ONLY		



30 May 2024

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

Project: Lagoon Discharge Sample Project Number: May 2024 SDG Number: 2405633

Enclosed are the results of analyses for samples received by the laboratory on 22-May-24 14:55. If you have any questions concerning this report, please feel free to contact me.

Sample Receipt Information:

Custody Seals	~
Containers Correct	~
COC/Labels Agree	~
Received On Ice	~
Temperature on Receipt	3.0°C

Sincerely,

Norma

Norma James Technical Director

Josh Weaver Wynne Water Utilities 121 East Merriman Wynne, AR 72396 Project: Lagoon Discharge Sample Project Number: May 2024 Date Received: 22-May-24 14:55

### ANALYTICAL RESULTS

Lab Number: Sample Name: Date/Time Collected: Sample Matrix:	Lagooi	2405633-01 n Discharge Grab (V 5/22/24 10:00 Water	Vynne)			
Wet Chemistry	<u>Units</u>	<u>Result</u>	<u>Qualifier(s)</u>	Date/Time Analyzed	Batch	<u>Method</u>
Ammonia as N	mg/L	10.6		5/29/24 12:14	B405662	SM 4500-NH3 B,D,C-2011
Fecal Coliforms	MPN/100 mL	340		5/22/24 15:15	B405550	IDEXX Colilert-18
TSS	mg/L	55.9		5/24/24 9:50	B405524	SM 2540 D-2015
CBOD	mg/L	7.35		5/23/24 7:00	B405537	SM 5210B-2016

Lab Number: Sample Name: Date/Time Collected: Sample Matrix:	Lagoon D	2405633-02 Discharge Field Analysis (AR 5/22/24 11:40 Water	Analytical)			
Field Analyses	<u>Units</u>	<u>Result</u>	<u>Qualifier(s)</u>	Date/Time Analyzed	<b>Batch</b>	<u>Method</u>
Dissolved Oxygen	mg/L	9.15		5/22/24 11:40	B405584	SM 4500-O G-2011
pН	S.U.	8.28		5/22/24 11:40	B405582	SM 4500-H+ B-2011
Temperature	°C	27.1		5/22/24 11:40	B405583	SM 2550B-2000



Josh Weaver Wynne Water Utilities 121 East Merriman Wynne, AR 72396 Project: Lagoon Discharge Sample Project Number: May 2024 Date Received: 22-May-24 14:55



### QUALITY CONTROL RESULTS

	Prepared: 24	Wet Chemistry Batc -May-24 09:50 By: MH	· · ·	:50 Bv: MH		
Analyte	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
TSS	<1.00 mg/L	87.0% / 86.0%	NA / NA		1.16%	
		Wet Chemistry Batc	h: B405537 (Water)			
	Prepared: 23	-May-24 07:00 By: KD	Analyzed: 23-May-24 07	:00 By: KD		
<u>Analyte</u>	<u>BLK</u>	LCS / LCSD	MS / MSD	Dup	RPD	<u>Qualifiers</u>
CBOD	<2.00 mg/L	118% / 125%	NA / NA		5.80%	
	Dronovodi 20	Wet Chemistry Bato	· · ·	45 D K I		
Analyta	BLK	2-May-24 15:15 By: KJ LCS / LCSD	MS / MSD	. тэ ву. кэ <u>Dup</u>	RPD	Qualifiers
<u>Analyte</u> Fecal Coliforms	<1 MPN/100 mL	NA / NA	NA / NA	TNTC	0.00%	FC, TNTC
				MPN/100 mL	0.0070	10, 1110
		Field Analyses Batc				
	-	-May-24 08:27 By: MH		-		0.110
Analyte	BLK	LCS / LCSD	MS / MSD	<u>Dup</u>	<u>RPD</u>	<u>Qualifiers</u>
pH (Field)	NA	100% / 100%	NA / NA		0.285%	
	Bronorodi 22	Field Analyses Batc				
Analista	-	-May-24 13:45 By: MH		.45 Бу. МП <u>Dup</u>		Qualifiara
<u>Analyte</u> Temperature (Field)	<u>BLK</u> NA	LCS/LCSD NA / NA	<u>MS/MSD</u> NA / NA	26.8 °C	<u>RPD</u> 0.00%	<u>Qualifiers</u>
	INA			20.0 C	0.00 %	
	Prenared: 22	Field Analyses Batc -May-24 13:45 By: MH		·45 By: MH		
Analyte	BLK	<u>LCS / LCSD</u>	MS / MSD	<u>Dup</u>	RPD	Qualifiers
Dissolved Oxygen (Field)	NA	NA / NA	NA / NA	7.12 mg/L	0.281%	Quanners
				7.12 mg/∟	0.20170	
	Prepared: 29	Wet Chemistry Batc -May-24 12:14 By: MB	• •	:14 By: MB		
Analyte	BLK	LCS / LCSD	<u>MS / MSD</u>	Dup	RPD	Qualifiers

Josh Weaver Wynne Water Utilities 121 East Merriman Wynne, AR 72396 Project: Lagoon Discharge Sample Project Number: May 2024



Project Number: May 2024 Date Received: 22-May-24 14:55

### QUALIFIER(S)

\*FC: The sample result is actually GREATER THAN 2420 MPN/100mL. The sample growth exceeded the limit of the procedure.

\*TNTC: Too Numerous To Count

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.

ma

Reviewed by:



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

# CHAIN OF CUSTODY RECORD

Wynne Water Utilities 121 East Merriman Wynne, AR 72396		Project Description		Turnaround Time				Preservation Codes:	n Codes:	
121 East Merriman Wynne, AR 72396		Lagoon Discharge Sample	Sample	1 Day (100%)	1. Cool, 6 D	1. Cool, 6 Degrees Centigrade	igrade		4. Thiosulfate for Dechlorination	Dechlorination
Wynne, AR 72396		Weekly Sample	ole	2 Day (50%)	2. Sulfuric /	Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> ), pH < 2	), pH < 2		5. Hydrochloric Acid(HCl)	Veid(HCl)
		Reporting Inforn	Information	3 Day (25%)	3. Nitrie Ac	Nitric Acid (HNO <sub>3</sub> ), pH < 2	pH < 2		6. Sodium Hydrox	6. Sodium Hydroxide (NaOH), pH > 12
		Telephone: 870-238-2751	8-2751	5 Day (Routine)		TEST	٩	ARAMET	TERS	Bottle Type Code
Attn: Josh Weaver		Fax: 870-238-2044	044	Preservative Code:	<u>،</u>	1 1,2	1,4			G = Glass; P = Plastic
		Email: jweaver.wwu@gmail.com	gmail.com	Bottle Type:	<u>а</u>	ь -	٩.			V = Septum; A = Amber
Sampleg(s) Signature	راکیم Sampler(s) Printed:	Josh Weer	1447		ł, D.O., ature)					Arkansas Analytical Work Order Number:
AMPLE COLLECTION ate/s Time/s Grab	Number of Sample Comp Bottles Matrix		SAMPLE SAMPLE IDENTIFICATION/ DESCRIPTION	SIPTION	Field (p <sup>l</sup> Tempera	Ammoni CBOD, 1	Fecal Co	-		2405633
S/22 104m X	9	Lago	e Grab (Wynne)			×	×			01
0/11/ 6		Water Lagoon Discharge Field Analysis (AR Analytical)	e Field Analysis	(AR Analytical)	×					02
		ONSITE MEASUREMENTS by Arkansas Analytical DATE:	REMENTS by A	vrkansas Analyti	ical DA	`~	MERC			
			Sample	Duplicate	g	<u> </u>	ác buplicate			
		pH (S.U.)	Sar	831	114	(1)~		ield Calibra	Field Calibration Record DATE	DATESTARY
			011	145	845	82	2	pH / Time	D.O.	Chiorine
		Temperature (°C)	2.7.1	27.2.	25.7	.'@	6	Ĵ	Time/	QC Time
		Time	Uh/I	114	N.S.S.	821	5 7			
		Dissolved Oxygen (mg/L)	915	920		5		10 V	Slope	2
		Time	0411	114)				820		
1. Relinquished by: (Signature)	2. Received by: (Signature)	(Signature)	SAMPLE CO	SAMPLE CONDITION UPON RECEIPT IN LAB	RECEIPT IN	I LAB		REMARK	REMARKS / SAMPLE COMMENTS	COMMENTS
1 1 5/22	5	1159	I. CUSTODY SEALS:	LS:	V Yes	No				
June 1	122	124	2. CONTAINERS CORRECT:	CORRECT:	Yes	Ŷ				
		3	3. COC/LABELS AGREE:	GREE:	Yes	No				
3. Relinquished by: (Signature)	4. Received by	4. Received by lab: (Signature)	4. RECEIVED ON ICE:	ICE:	L Yes	No				
	~	Natasha.	5. TEMPERATURE ON RECEIPT:	E ON RECEIPT:	З К қ					
			6. TEMPERATURE GUN ID:	E GUN ID:	HHT# 5					
/ Revision 3, 22, 2, 1		Found	FOR	FOR COMPLETION BY LAB ONLY	LAB ONLY					



04 June 2024

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

Project: Lagoon Discharge Sample Project Number: May 2024 SDG Number: 2405793

Enclosed are the results of analyses for samples received by the laboratory on 29-May-24 14:56. If you have any questions concerning this report, please feel free to contact me.

Sample Receipt Information:

Custody Seals	~
Containers Correct	~
COC/Labels Agree	~
Received On Ice	~
Temperature on Receipt	1.0°C

Sincerely,

Norma

Norma James Technical Director

Josh Weaver Wynne Water Utilities 121 East Merriman Wynne, AR 72396 Project: Lagoon Discharge Sample Project Number: May 2024 Date Received: 29-May-24 14:56

### **CASE NARRATIVE**

Sample Delivery Group - 2405793

# Arkansas Analytical

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

### FECAL COLIFORM QUALIFIERS:

 Qualifier
 Description

 FC
 The sample result is actually GREATER THAN the 2420 MPN/100 mL. The sample growth exceeded the limit of the procedure.

 TNTC
 Too Numerous to Count

Josh Weaver Wynne Water Utilities 121 East Merriman Wynne, AR 72396 Project: Lagoon Discharge Sample Project Number: May 2024 Date Received: 29-May-24 14:56

Lab Number: Sample Name: Date/Time Collected: Sample Matrix:	Lagoo	2405793-01 n Discharge Grab (V 5/29/24 10:00 Water	Vynne)			
Wet Chemistry	<u>Units</u>	<u>Result</u>	<u>Qualifier(s)</u>	Date/Time Analyzed	<b>Batch</b>	<u>Method</u>
Ammonia as N	mg/L	< 1.00		5/31/24 8:38	B405704	SM 4500-NH3 B,D,C-2021/EPA
Fecal Coliforms	MPN/100 mL	TNTC	FC, TNTC	5/29/24 15:00	B405732	IDEXX Colilert-18
TSS	mg/L	36.5		5/31/24 13:49	B405672	SM 2540 D-2015
CBOD	mg/L	13.3		5/30/24 7:00	B405665	SM 5210B-2016
ANALYTICAL RESULTS						

Lab Number: Sample Name: Date/Time Collected: Sample Matrix:	Lagoon D	2405793-02 ischarge Field Analysis (AR 5/29/24 11:40 Water	R Analytical)			
Field Analyses	<u>Units</u>	<u>Result</u>	<u>Qualifier(s)</u>	Date/Time Analyzed	Batch	<u>Method</u>
Dissolved Oxygen	mg/L	12.4		5/29/24 11:40	B405719	SM 4500-O G-2011
pН	S.U.	8.02		5/29/24 11:40	B405717	SM 4500-H+ B-2011
Temperature	°C	28.3		5/29/24 11:40	B405718	SM 2550B-2000



Josh Weaver Wynne Water Utilities 121 East Merriman Wynne, AR 72396 Project: Lagoon Discharge Sample Project Number: May 2024 Date Received: 29-May-24 14:56



### QUALITY CONTROL RESULTS

	Prepared: 30	Wet Chemistry Bate May-24 07:00 By: KD-	ch: B405665 (Water) Analyzed: 30-May-24 07:0	00 By: KD		
Analyte	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
CBOD	<2.00 mg/L	124% / 122%	NA / NA		1.91%	
		Wet Chemistry Bato	· · ·			
	Prepared: 29-	May-24 16:15 By: MH	Analyzed: 29-May-24 16:	-		
<u>Analyte</u>	<u>BLK</u>	LCS / LCSD	<u>MS / MSD</u>	<u>Dup</u>	<u>RPD</u>	<b>Qualifiers</b>
TSS	<1.00 mg/L	89.0% / 93.0%	NA / NA		4.40%	
	Prepared: 31	Wet Chemistry Bate -May-24 08:38 By: KJ	ch: B405704 (Water) Analyzed: 31-May-24 08::	38 By: JB		
Analyte	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
Ammonia as N	<0.500 mg/L	92.5% / NA	92.1% / 90.1%	_	1.88%	
<u>Analyte</u> pH (Field)	Prepared: 29- <u>BLK</u> NA	Field Analyses Bate May-24 08:22 By: MH <u>LCS / LCSD</u> 100% / 100%	ch: B405717 (Water) Analyzed: 29-May-24 08: <u>MS / MSD</u> NA / NA	22 By: MH <u>Dup</u>	<u>RPD</u> 0.285%	Qualifiers
	Prepared: 29-	Field Analyses Bato May-24 13:40 By: MH	:h: B405718 (Water) Analyzed: 29-May-24 13:	40 By: MH		
Analyte	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
Temperature (Field)	NA	NA / NA	NA / NA	27.2 °C	0.00%	
	Prepared: 29-	Field Analyses Bato May-24 13:40 By: MH	ch: B405719 (Water) Analyzed: 29-May-24 13:	40 By: MH		
Analyte	<u>BLK</u>	LCS / LCSD	MS / MSD	Dup	<u>RPD</u>	Qualifiers
Dissolved Oxygen (Field)	NA	NA / NA	NA / NA	7.03 mg/L	0.426%	
	Prepared: 29	Wet Chemistry Bato -May-24 15:00 By: KJ	ch: B405732 (Water) Analyzed: 29-May-24 15:≀	00 By: KJ		
Analyte	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
Fecal Coliforms	<1 MPN/100 mL	NA / NA	NA / NA	49 MPN/100 mL	4.84%	

Josh Weaver Wynne Water Utilities 121 East Merriman Wynne, AR 72396 Project: Lagoon Discharge Sample Project Number: May 2024



Project Number: May 2024 Date Received: 29-May-24 14:56

### QUALIFIER(S)

\*FC: The sample result is actually GREATER THAN 2420 MPN/100mL. The sample growth exceeded the limit of the procedure.

\*TNTC: Too Numerous To Count

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.

ma.

Reviewed by:

		BY LAB ONLY	FOR COMPLETION BY L	FOF		1-1-1		
						ちっちらく		Bailing
		HHT# 5				1126		
		°C		V JAMES 5. TEMPERATURE ON RECEIP	Svdnev	luli		
		Yes No	N ICE:	Received by lab: (Signature) 4. RECEIVED ON ICE:	4. Received by I	Date/Time	Relinquished by: (Signature)	3. Relinquished
		Yes No	AGREE	3. COC/LABELS AGREE:	N.L.			1
		Yes No	S CORRECT:	2. CONTAINERS CORRECT.	15201		1	M. N.
		V Yes No	EALS:	1. CUSTODY SEALS:	1152	521C		Histor
REMARKS / SAMPLE COMMENTS	R	ECEIPT IN LAB	SAMPLE CONDITION UPON RECEIPT IN LAB		2. Received by: (Signature)	Date/Time	Relinguished by: (Signature)	1. Relinguished
S	18		ILHT					
Slope 2	10		12MO	(mg/L) //26			5	
1	72 7	8 pro	1145	Time 1/40				
Time QC Time	4	222 23.2	28.4	Temperature (°C) 28.3				
/ Time D.O. Chlorine	PH	820 82	1145	Time /140				
Field Calibration Record DATE: SUG24	703 Field	201	806	pH (S.U.) 802				
	QC Duplicate	ac ac	Duplicate	Sample				
	NN	DATE: 5	/ Arkansas Analyti	ONSITE MEASUREMENTS by Arkansas Analytical				
02		×	sis (AR Analytical)	Water Lagoon Discharge Field Analysis (AR Analytical)		0411	mich	
01	×	×	1e)	Water Lagoon Discharge Grab (Wynne)	ω	4	(7)(	
							2112	
2405793		Terr CBC		IDENTIFICATION/ DESCRIPTION	Grab Comp Bottles Matrix	Time/s	Date/s	Number
	noni al Co	DD, T		SAMPLE	Number	DLLECTION	SAMPLE COLLECTION	Field
Order Number:	a oliforr			MAHS: (HARALDI	Sampler(s) Printed:	Sa	jnature	Sampler(s) Signature
Arkansas	n			~ Wenner	Josh		la	fiel
V = Septum; A = Amber	σ	Р Р Р	Bottle Type:	Email: jweaver.wwu@gmail.com				
G = Glass; P = Plastic	2 1,4	1 1 1,2	Preservative Code:	Fax: 870-238-2044			aver	Attn: Josh Weaver
AMETERS Bottle Type Code	EST PAR/	TE	5 Day (Routine)	Telephone: 870-238-2751				
6. Sodium Hydroxide (NaOH), pH > 12	), pH < 2	3. Nitric Acid (HNO <sub>3</sub> ), pH < 2	3 Day (25%)	Reporting Information	1		396	Wynne, AR 72396
5. Hydrochloric Acid(HCl)	O <sub>4</sub> ), pH < 2	2. Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> ), pH < 2	2 Day (50%)	Weekly Sample			man	121 East Merriman
4. Thiosulfate for Dechlorination	entigrade	1. Cool, 6 Degrees Centigrade		Lagoon Discharge Sample			Utilities	Wynne Water Utilities
Preservation Codes:	Pre		Turnaround Time	Project Description			RMATION	<b>CLIENT INFORMATION</b>
F CUSTODY RECORD	SIO	T CU	CHAIN O	CH	Little Rock, AR 72209 PHONE: 501-455-3233 FAX: 501-455-6118	FAX: 50	Arkansas Analytical Inc.	Arkansc
			)		8100 National Dr.	8100 Na		