

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

13 August 2024

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

Project: Lagoon Discharge Sample

Project Number: August 2024

SDG Number: 2408126

Enclosed are the results of analyses for samples received by the laboratory on 07-Aug-24 15:00. If you have any questions concerning this report, please feel free to contact me.

Sample Receipt Information:

Custody Seals	✓
Containers Correct	<u> </u>
COC/Labels Agree	~
Received On Ice	<u> </u>
Temperature on Receipt	2.0°C

Sincerely,

Norma James

Technical Director

This document is intended only for the use of the person(s) to whom it is expressly addressed. This document may contain information that is confidential and legally privileged. If you are not the intended recipient, you are notified that any disclosure, distribution, or copying of this document is strictly prohibited. If you have received this document in error, please destroy.

Project: Lagoon Discharge Sample

Project Number: August 2024 Date Received: 07-Aug-24 15:00



Sample Delivery Group – 2408126

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:

Qualifier 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 failed 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).



Project: Lagoon Discharge Sample Project Number: August 2024 Date Received: 07-Aug-24 15:00



ANALYTICAL RESULTS

Lab Number: 2408126-01

Sample Name: Lagoon Discharge Grab (Wynne)

Date/Time Collected: 8/7/24 10:00 Sample Matrix: Water

Wet Chemistry	<u>Units</u>	<u>Result</u>	Qualifier(s)	Date/Time Analyzed	<u>Batch</u>	Method
Ammonia as N	mg/L	0.604		8/9/24 8:14	B408154	SM 4500-NH3 B,D,C-2021/EPA
Fecal Coliforms	MPN/100 mL	960		8/7/24 15:09	B408139	IDEXX Colilert-18
TSS	mg/L	35.9		8/8/24 16:20	B408147	SM 2540 D-2015
CBOD	mg/L	11.4	B-04	8/8/24 13:02	B408145	SM 5210B-2016

ANALYTICAL RESULTS

Lab Number: 2408126-02

Sample Name: Lagoon Discharge Field Analysis (AR Analytical)

Date/Time Collected: 8/7/24 11:50 Sample Matrix: Water

Field Analyses	<u>Units</u>	Result	Qualifier(s)	Date/Time Analyzed	<u>Batch</u>	<u>Method</u>
Dissolved Oxygen	mg/L	12.0		8/7/24 11:50	B408175	SM 4500-O G-2011
рН	S.U.	8.58		8/7/24 11:50	B408173	SM 4500-H+ B-2011
Temperature	°C	28 7		8/7/24 11:50	B408174	SM 2550B-2000

Arkansas Analytical Inc.

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

Project: Lagoon Discharge Sample Project Number: August 2024 Date Received: 07-Aug-24 15:00

QUALITY CONTROL RESULTS

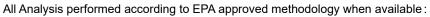
	Prepared: 07	Wet Chemistry Batc -Aug-24 15:09 By: KJ	•	6:09 Bv: KJ		
<u>Analyte</u>	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
Fecal Coliforms	<1 MPN/100 mL	NA / NA	NA / NA	ND MPN/100 mL	NA	
	Prepared: 08	Wet Chemistry Bato -Aug-24 13:02 By: KD	, ,	3:02 By: KD		
<u>Analyte</u>	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
CBOD	<2.00 mg/L	128% / 124%	NA / NA		3.04%	
	Prepared: 08-	Wet Chemistry Batc Aug-24 16:20 By: MH		6:20 Bv: MH		
Analyte	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
TSS	<1.00 mg/L	92.0% / 86.0%	NA / NA		6.74%	
	Prepared: 09	Wet Chemistry Bato -Aug-24 08:14 By: KJ	•	3:14 Bv: K.I		
<u>Analyte</u>	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
Ammonia as N	<0.500 mg/L	93.9% / NA	101% / 101%		0.677%	
	Drawaradi 07	Field Analyses Batc		Dige Divi Mill		
Analista	BLK	Aug-24 08:36 By: MH	MS / MSD	Dup	RPD	Qualifiers
Analyte pH (Field)	NA	<u>LCS / LCSD</u> 101% / 101%	NA / NA	<u>545</u>	0.00%	<u>Quaimers</u>
	Prepared: 07-	Field Analyses Batc Aug-24 13:52 By: MH	• •	8:52 Bv: MH		
Analyte	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
Temperature (Field)	NA	NA / NA	NA / NA	28.9 °C	0.345%	
	Prepared: 07-	Field Analyses Batc Aug-24 13:52 By: MH	` '	8:52 By: MH		
<u>Analyte</u>	BLK	LCS / LCSD	MS / MSD	<u>Dup</u>	RPD	Qualifiers
Dissolved Oxygen (Field)	NA	NA / NA	NA / NA	6.97 mg/L	0.287%	

QUALIFIER(S)

*B-04: Test replicates show a >30% difference between the highest and lowest values

Project: Lagoon Discharge Sample

Project Number: August 2024 Date Received: 07-Aug-24 15:00



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.

Reviewed by:

Norma James Technical Director Arkansas Analytical



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

CHAIN OF CUSTODY RECORD

Mymor Mater Utilities	CLIENT INFORM	MATION					<u> </u>	Project Des	cription	Turnaround Time					Pres	ervatio	n Code	s:		
Note	Wynne Water U	tilities						Lagoon Discha	rge Sample	1 Day (100%)	1. Cool	, 6 Degr	ees Cent	igrade			4. Thio	sulfate f	or Dech	lorination
Telephone: 870-238-2761 Fax: 870-238-2764 Fax: 87	121 East Merrim	nan						Weekly S	ample	2 Day (50%)	2. Sulfu	ıric Acio	l (H ₂ SO ₄)	, pH < 2	!		5. Hydrochloric Acid(HCl)			HCI)
Telephone: 870-239-2751 Telephone: 870-2	Wynne, AR 7239	96						Reporting Inf	formation	3 Day (25%)	3. Nitri	3. Nitric Acid (HNO ₃), pH < 2				6. Sodiu	ım Hydr	oxide (N	NaOH), pH > 12	
Email: Juesever.www@gmail.com Boolie Type P P P P P P P P P								Telephone: 870)-238-2751 (5 Day (Routine)	\$		TES	T P	ARA				-	
Sampler(s) Signature Sampler(s) Printed: Sampler(s) Printed: Sampler(s) Printed: Sampler(s) Signature Sampler(s) Signature Sampler(s) Signature Sampler(s) Signature Sampler(s) Signature Sampler(s) Printed: Sam	Attn: Josh Wea	ver						Fax: 870-23	88-2044	Preservative Code	: 1	1	1,2	1,4						G = Glass; P = Plastic
Sample/(s) Signature Sample/(s) Printed: Sample/(s) Printed: Sample/(s) Printed: Sample							E	mail: jweaver.ww	u@gmail.com	Bottle Type	: P	Р	Р	Р						V = Septum; A = Ambe
S						- Weaver	ransas?	,	1, D.O., ature)	ISS	a	liform						Analytical Work		
S	Field	SAMPLE C	OLLECTION			Number			SAMPLE		d (pł perz	, O	noni	ŏ						
S	Number	Date/s	Time/s	Grab	Comp	of		IDENTIF	ICATION/ DESC	CRIPTION	Field	CBC	Amn	Fec						2408121
ONSITE MEASUREMENTS by Arkansas Analytical X O O2		8/7	10Am	Х		3	Water	Lagoon Discha	rge Grab (Wynn	e)			Х	Х						
ONSITE MEASUREMENTS by Arkansas Analytical DATE: 87,244 Sample Duplicate QC QC Duplicate PH (S.U.) 878 844 705 705 Field Calibration Record DATE: 87,244 Time // So // Sc 835 836 PH / Time D.O. Chlorine Temperature (°C) 72 72 857 24.1 24.0 4 Time QC Time // So // Sc 835 836 7 1 Time		87.24	-								X									
Sample Duplicate QC QC Duplicate QC Duplicate QC Dupli		900							·go · ioia · iiiaijo	, , , , , , , , , , , , , , , , , , , ,	1									
Sample Duplicate QC QC Duplicate QC																				
Sample Duplicate QC QC Duplicate QC Duplicate QC Dupli		%						ONOTE MEAS	UDEMENTS by	Arkanaaa Analu	tion! [) ATE.	80	الاه						
pH (S.U.) 858 84 705 705 Field Calibration Record - DATE 704 Time				-	-	-		ONSTIE WEAS			T		111							
Time														10.00					0	<u></u>
Temperature (°C) 28.7 28.5 24.1 24.0 4 Time QC Time Time 1/50 1/55 835 836 7 1 1 1 1 1 1 1 1 1					-					-	, -		10						DATE	
Time Dissolved Oxygen (mpt.) 1. Relinquished by: (Signature) 2. Received by: (Signature) 3. Relinquished by: (Signature) 4. Received by lab: (Signature) 4. Received by lab: (Signature) 4. Received by lab: (Signature) 5. TEMPERATURE GUN ID: HHT# FEDE COMPLETION BY LAB ONLY FEDE COMPLETION BY LAB ONLY								Time	1150	, , , ,		1			pH /	Гime	D.0	0.		Chlorine
Dissolved Oxygen (mg/L) 1. Relinquished by: (Signature) Date/Time 8/7/24 2. Received by: (Signature) SAMPLE CONDITION UPON RECEIPT IN LAB REMARKS / SAMPLE COMMENTS 1. CUSTODY SEALS: YesNo 2. CONTAINERS CORRECT: YesNo 3. COC/LABELS AGREE: YesNo 4. Received by lab: (Signature) 4. RECEIVED ON ICE: YesNo 5. TEMPERATURE ON RECEIPT: AC 6. TEMPERATURE GUN ID: HHT# FOR COMPLETION BY LAB ONLY					-			Temperature (°C)	28.7						4		Tin	né	QC	Time
1. Relinquished by: (Signature) Date/Time 8/7/24 2. Received by: (Signature) SAMPLE CONDITION UPON RECEIPT IN LAB REMARKS / SAMPLE COMMENTS 1. CUSTODY SEALS: 2. CONTAINERS CORRECT: 4. Received by lab: (Signature) 4. Received by lab: (Signature) 4. Received by lab: (Signature) 5. TEMPERATURE ON RECEIPT: 2°C 6. TEMPERATURE GUN ID: HHT# FOR COMPLETION BY LAB ONLY									1150	1155	83	5	83	0	7				1	
1. Relinquished by: (Signature) Sample Condition Upon Receipt in Lab Remarks / Sample Comments								(mg/L)	11.96	11.50					10	_	Şlo	ре	2	
8/7/24 1. CUSTODY SEALS: YesNo 2. CONTAINERS CORRECT: YesNo 3. COC/LABELS AGREE: YesNo 4. Received by lab: (Signature) 4. Received by lab: (Signature) FOR COMPLETION BY LAB ONLY FOR COMPLETION BY LAB ONLY								Time	1150	(155					83		/			的思想是推到
2. CONTAINERS CORRECT: Yes No 3. COC/LABELS AGREE: Yes No 4. Received by lab: (Signature) 4. RECEIVED ON ICE: Yes No 5. TEMPERATURE ON RECEIPT: 2°C 6. TEMPERATURE GUN ID: HHT# FOR COMPLETION BY LAB ONLY	1. Relinquished by:	: (Signature)	<u>Date/Time</u>		2. Red	eived I	y: (Sig	<u>anature)</u>	SAMPLE C	ONDITION UPON I	RECEIPT	IN LAE	3		RE	MARK	S/SAN	VIPLE (COMM	IENTS
2. CONTAINERS CORRECT: Yes No 3. COC/LABELS AGREE: Yes No 4. Received by lab: (Signature) 4. RECEIVED ON ICE: Yes No 5. TEMPERATURE ON RECEIPT: 2°C 6. TEMPERATURE GUN ID: HHT# FOR COMPLETION BY LAB ONLY	11		8/7/24			11	7		1. CUSTODY SEA	ALS:	Yes	s	No							
3. COC/LABELS AGREE: YesNo 3. Relinquished by: (Signature) 4. Received by lab: (Signature) 4. RECEIVED ON ICE: YesNo 5. TEMPERATURE ON RECEIPT: 2°C 6. TEMPERATURE GUN ID: HHT# FOR COMPLETION BY LAB ONLY	fort		017/24		1	115	27	•	2 CONTAINERS	CORRECT	(No.							
8. Relinquished by: (Signature) A. Received by lab: (Signature) 4. RECEIVED ON ICE: YesNo 5. TEMPERATURE ON RECEIPT: 2°C 6. TEMPERATURE GUN ID: HHT# FOR COMPLETION BY LAB ONLY	1 IN	-				9	1/2/													
(500 8724 5. TEMPERATURE ON RECEIPT: 2°C 6. TEMPERATURE GUN ID: HHT# FOR COMPLETION BY LAB ONLY	V										Tres		ľ							
REVISION 5 FOR COMPLETION BY LAB ONLY	Relinquished by:	(Signature)	Date/Time										No							
REVISION 5 FOR COMPLETION BY LAB ONLY	1500 Janua 1100				Ill.	5. TEMPERATUR	E ON RECEIPT:	, V.c	5			×				3				
REVISION 5 FOR COMPLETION BY LAB ONLY	C		87,211			JW	V		6. TEMPERATUR	E GUN ID:	HHT#	<i>y</i> .								
			1000						FOR	COMPLETION BY I	AB ONL	.Υ								



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

21 August 2024

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

Project: Lagoon Discharge Sample

Project Number: August 2024

SDG Number: 2408299

Enclosed are the results of analyses for samples received by the laboratory on 14-Aug-24 15:15. If you have any questions concerning this report, please feel free to contact me.

Sample Receipt Information:

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

Sincerely,

Norma James

Technical Director

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Project: Lagoon Discharge Sample

Project Number: August 2024 Date Received: 14-Aug-24 15:15



Sample Delivery Group - 2408299

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

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

Arkansas Analytical

Project: Lagoon Discharge Sample Project Number: August 2024 Date Received: 14-Aug-24 15:15



ANALYTICAL RESULTS

Lab Number: 2408299-01

Sample Name: Lagoon Discharge Grab (Wynne)

Date/Time Collected: 8/14/24 10:00

Sample Matrix: Water

Wet Chemistry	<u>Units</u>	Result	Qualifier(s)	Date/Time Analyzed	<u>Batch</u>	Method
Ammonia as N	mg/L	< 0.500		8/16/24 8:15	B408306	SM 4500-NH3 B,D,C-2021/EPA
Fecal Coliforms	MPN/100 mL	TNTC	FC, TNTC	8/14/24 15:10	B408275	IDEXX Colilert-18
TSS	mg/L	51.5		8/15/24 16:25	B408284	SM 2540 D-2015
CBOD	mg/L	12 1		8/15/24 7:42	B408271	SM 5210B-2016

ANALYTICAL RESULTS

Lab Number: 2408299-02

Sample Name: Lagoon Discharge Field Analysis (AR Analytical)

Date/Time Collected: 8/14/24 12:10

Sample Matrix: Water

Field Analyses	<u>Units</u>	<u>Result</u>	Qualifier(s)	Date/Time Analyzed	<u>Batch</u>	<u>Method</u>
Dissolved Oxygen	mg/L	9.90		8/14/24 12:10	B408336	SM 4500-O G-2011
рН	S.U.	8.75		8/14/24 12:10	B408334	SM 4500-H+ B-2011
Temperature	°C	27.8		8/14/24 12:10	B408335	SM 2550B-2000

Project Number: August 2024

Project: Lagoon Discharge Sample Date Received: 14-Aug-24 15:15



<u>Analyte</u>	-	Nug-24 07:42 By: MB				
<u>Analyte</u>		aug-24 07.42 by. Mb	Analyzed: 15-Aug-24 07	:42 By: CGF		
	<u>BLK</u>	LCS / LCSD	MS / MSD	<u>Dup</u>	RPD	Qualifiers
CBOD	<2.00 mg/L	115% / 116%	NA / NA		0.764%	
	Burn and 4.4	Wet Chemistry Bat		5-40 Day 1/4		
			- Analyzed: 14-Aug-24 1		DDD	O. alifiana
Analyte	BLK <1 MPN/100 mL	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
Fecal Coliforms	< 1 MIFIN/100 IIIL	NA / NA	NA / NA	ND MPN/100 mL	NA	
	Propared: 45	Wet Chemistry Bat	ch: B408284 (Water) - Analyzed: 15-Aug-24 10	2:25 Pv: MU		
Analyta	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
Analyte TSS	<1.00 mg/L	89.0% / 93.0%	NA / NA	<u> </u>	4.40%	Qualifiers
133	<1.00 Hig/L	69.0% / 93.0%	NA / NA		4.40%	
	Dranaradi 16	Wet Chemistry Bat	ch: B408306 (Water) - Analyzed: 16-Aug-24 08	0.45 Dv. K I		
Analyte	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
Ammonia as N	<0.500 mg/L	94.9% / NA	93.5% / 88.5%	<u> </u>	5.30%	quamore
Ammonia as N	<0.300 Hig/L	94.970 / INA	93.370 7 00.370		3.30 /0	
		Field Analyses Bat	, ,			
			- Analyzed: 14-Aug-24 08			
<u>Analyte</u>	<u>BLK</u>	LCS / LCSD	MS / MSD	<u>Dup</u>	<u>RPD</u>	Qualifiers
pH (Field)	NA	101% / 101%	NA / NA		0.00%	
		Field Analyses Bat				
			- Analyzed: 14-Aug-24 14			
Analyte	<u>BLK</u>	LCS / LCSD	MS / MSD	<u>Dup</u>	<u>RPD</u>	Qualifiers
Temperature (Field)	NA	NA / NA	NA / NA	29.8 °C	0.00%	
	Propared: 44	Field Analyses Bat		1.03 By: MU		
Amalista			- Analyzed: 14-Aug-24 14	·	BBD	Ouglifiers
Analyte Disselved Overgen (Field)	BLK	LCS / LCSD	MS / MSD	<u>Dup</u>	RPD	Qualifiers
Dissolved Oxygen (Field)	NA	NA / NA	NA / NA	6.50 mg/L	0.307%	

Project: Lagoon Discharge Sample Project Number: August 2024 Date Received: 14-Aug-24 15:15



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.

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 INFORM	MATION						Project Desc	crintion	Turnaround Time					Pres	ervatio	n Codes	:		1
										1 61	(D	C4					ulfate for l	Dooblo	vination
Wynne Water Ut							Lagoon Dischar		1 Day (100%)			es Centi	_						
121 East Merrim							Weekly Sa		2 Day (50%)	2. Sulfuric Acid (H ₂ SO ₄), pH < 2				5. Hydrochloric Acid(HCl)					
Wynne, AR 7239	96						Reporting Info		3 Day (25%)	3. Nitri	c Acid (I	INO ₃), p					n Hydroxi	de (Na	OH), pH > 12
							Telephone: 870	-238-2751	5 Day (Routine)			TES		ARA	MET	ERS		_	Bottle Type Code
Attn: Josh Weav	ver						Fax: 870-23	8-2044	Preservative Code:	1	1	1,2	1,4				_	_	G = Glass; P = Plastic
						Е	mail: jweaver.wwi	u@gmail.com	Bottle Type:	Р	Р	Р	Р					_	V = Septum; A = Amber
Sampler(s) Sign	gnature Sampler(s) Printed: Market			(Seauce	9D	Field (pH, D.O., Temperature) CBOD, TSS				Fecal Coliform						Arkansas Analytical Work Order Number:			
Field	SAMPLE C	OLLECTION			Number			SAMPLE		Field (pH, Temperat	CBOD, TSS	non	<u>a</u>						12
Number	Date/s	Time/s	Grab	Comp	of	Sample Matrix	IDENTIF	ICATION/ DESC	RIPTION	Field	CBC	Ammonia	Fec						240829
	8/14	1011	Х		3	Water	Lagoon Dischar	rge Grab (Wynne	e)		X	Х	Х						01
	8/4/24	1210	Х						s (AR Analytical)	Х									02
8	11/10	1210				rrator	e e e e e e e e e e e e e e e e e e e	go	_ (, , , , , , , , , , , , , , , , , , ,										
4 -				-															
		i.					ONSITE MEAS	LIREMENTS by	Arkansas Analyt	ical [DATE:	214.	211						
	(X.	(m) y 2		-			ONSTIL MILAS					/ . / .	-					1	
								Sample	Duplicate	Q		QC Du	1		2 111	. 5		A T.E.	Supart
							pH (S.U.)	075		705		705					33	met one	GILBA
							Time	1210	1215	846	2	847		pH /	Time	D.C). /		Chlorine
							Temperature (°C)	27.8	27.7	23:7	7 1	3.6	>	4	5	Tip	ie Q	C	Time
							Time	1210	1215	846		84	7	7	,		1		
							Dissolved Oxygen (mg/L)	990	9.94					10	/	Slop	oe 2		
	er .						Time	1210	1215					84	4	1			
1. Relinguished by:	(Signature)	Date/Time		2. Rec	eived I	oy: (Sig	nature)	SAMPLE C	ONDITION UPON F	RECEIPT	IN LAE	3		RE	MARK	S/SAN	IPLE CO	OMME	ENTS
///		8/14		1	22			1. CUSTODY SEA	ALS:	Ye	S	No							
Lest		0//9		6	US	10				T									
11/11/				1	8/14	juy		2. CONTAINERS			s								
V						4		3. COC/LABELS A	AGREE:	Ye	s	No			-				
3. Relinquished by:	(Signature)	Date/Time		4. Rec	eived b	oy lab:	(Signature)	4. RECEIVED ON	ICE:	Ye	s	No							
		1515		7	411	4 1	1001	5. TEMPERATUR	E ON RECEIPT:	3°€	5								
A	• • •	0-(1)			W	WV	U	6. TEMPERATUR	E GUN ID:	HHT#			• ==		10	. • : "			
Revision 3		8/14/2	4					FOR	COMPLETION BY L	AB ON	LY								



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

28 August 2024

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

Project: Lagoon Discharge Sample

Project Number: August 2024

SDG Number: 2408466

Enclosed are the results of analyses for samples received by the laboratory on 21-Aug-24 16:00. If you have any questions concerning this report, please feel free to contact me.

Sample Receipt Information:

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

Sincerely,

Norma James

Technical Director

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Project: Lagoon Discharge Sample
Project Number: August 2024

Date Received: 21-Aug-24 16:00



Sample Delivery Group – 2408466

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:

Qualifier 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 failed 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).



Project: Lagoon Discharge Sample Project Number: August 2024 Date Received: 21-Aug-24 16:00



ANALYTICAL RESULTS

Lab Number: 2408466-01

Sample Name: Lagoon Discharge Grab (Wynne)

Date/Time Collected: 8/21/24 10:00 Water

Sample Matrix:

Wet Chemistry	<u>Units</u>	Result	Qualifier(s)	Date/Time Analyzed	<u>Batch</u>	<u>Method</u>
Ammonia as N	mg/L	< 0.500		8/23/24 8:28	B408447	SM 4500-NH3 B,D,C-2021/EPA
Fecal Coliforms	MPN/100 mL	1200		8/21/24 15:40	B408422	IDEXX Colilert-18
TSS	mg/L	36.0		8/26/24 9:10	B408440	SM 2540 D-2015
CBOD	mg/L	20.9	B-04	8/23/24 7:00	B408441	SM 5210B-2016

ANALYTICAL RESULTS

2408466-02 Lab Number:

Sample Name: Lagoon Discharge Field Analysis (AR Analytical)

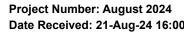
Date/Time Collected: 8/21/24 12:57

> Sample Matrix: Water

<u>Field Analyses</u>	<u>Units</u>	<u>Result</u>	Qualifier(s)	Date/Time Analyzed	<u>Batch</u>	<u>Method</u>
Dissolved Oxygen	mg/L	14.6		8/21/24 12:57	B408478	SM 4500-O G-2011
рН	S.U.	8.90		8/21/24 12:57	B408476	SM 4500-H+ B-2011
Temperature	°C	26.9		8/21/24 12:57	B408477	SM 2550B-2000

Project: Lagoon Discharge Sample

Date Received: 21-Aug-24 16:00 OUALITY CONTROL PEGLILTS



		Wet Chemistry Batc	h: B408422 (Water)			
	Prepared: 21	-Aug-24 15:40 By: KJ A	Analyzed: 21-Aug-24 15:	40 By: KJ		
<u>Analyte</u> Fecal Coliforms	BLK <1 MPN/100 mL	<u>LCS / LCSD</u> NA / NA	MS / MSD NA / NA	<u>Dup</u> 14 MPN/100 mL	RPD 73.5%	Qualifiers
	Prepared: 26	Wet Chemistry Batc -Aug-24 09:10 By: MH		10 By: MH		
<u>Analyte</u>	<u>BLK</u>	LCS / LCSD	MS / MSD	<u>Dup</u>	RPD	Qualifiers
TSS	<1.00 mg/L	92.0% / 94.0%	NA / NA		2.15%	
	Prepared: 23	Wet Chemistry Batc -Aug-24 07:00 By: KD A	• •	00 By: KD		
Analyte	BLK	LCS / LCSD	MS / MSD	<u>Dup</u>	RPD	Qualifiers
CBOD	<2.00 mg/L	135% / 138%	NA / NA		2.15%	
	Prepared: 23	Wet Chemistry Batc -Aug-24 08:28 By: KJ A	` '	28 Bv: KJ		
Analyte	BLK	LCS / LCSD	MS / MSD	<u>Dup</u>	RPD	Qualifiers
Ammonia as N	<0.500 mg/L	98.0% / NA	102% / 102%		0.454%	
	Prepared: 21	Field Analyses Batc Aug-24 08:37 By: MH A	• •	37 Bv: MH		
<u>Analyte</u>	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
pH (Field)	NA	101% / 101%	NA / NA		0.284%	
	Prepared: 21	Field Analyses Batc Aug-24 14:45 By: MH A	• •	45 Bv: MH		
Analyte	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
Temperature (Field)	NA	NA / NA	NA / NA	27.7 °C	0.362%	
	Propored: 21	Field Analyses Batc Aug-24 14:45 By: MH A	, ,	AE Dy: MU		
Analysta			MS / MSD	<u>Dup</u>	RPD	Qualifiers
Analyte Dissolved Oxygen (Field)	<u>BLK</u> NA	<u>LCS / LCSD</u> NA / NA	NA / NA	7.13 mg/L	0.420%	Qualifiels

Test replicates show a >30% difference between the highest and lowest values

Arkansas Analytical

*B-04:

Project: Lagoon Discharge Sample Project Number: August 2024 Date Received: 21-Aug-24 16:00



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.

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 Lagoon Discharge Sample 1 Day (100%) 1. Cool, 6 Degrees Centigrade 4. Thiosulfate for Dechlorination 121 East Merriman Weekly Sample 2 Day (50%) 2. Sulfuric Acid (H2SO4), pH < 2 5. Hydrochloric Acid(HCl) Wynne, AR 72396 Reporting Information 3 Day (25%) 3. Nitric Acid (HNO₃), pH < 2 6. Sodium Hydroxide (NaOH), pH > 12 Telephone: 870-238-2751 5 Day (Routine) PARAMETERS TEST Bottle Type Code Attn: Josh Weaver Fax: 870-238-2044 Preservative Code 1 1 1,2 1,4 G = Glass; P = Plastic Email: jweaver.wwu@gmail.com Bottle Type P P P P V = Septum; A = Amber Arkansas D.O. Analytical Work Field (pH, D.O Temperature) Fecal Coliform CBOD, TSS Sampler(s) Signature Sampler(s) Printed: m NAX LANA Order Number: Ammonia Field SAMPLE COLLECTION SAMPLE of Number Date/s Time/s IDENTIFICATION/ DESCRIPTION Matrix Bottles 8/21 loAm X Water Lagoon Discharge Grab (Wynne) 01 X Water Lagoon Discharge Field Analysis (AR Analytical) X 02 ONSITE MEASUREMENTS by Arkansas Analytical -- DATE: Sample Duplicate QC QC Duplicate Field Calibration Record -- DATE: 8,21,24 704 pH (S.U.) 836 Time pH / Time D.O. Chlorine Temperature (°C) Time Time Time Dissolved Oxygen 10 Slope Time Relinguished by: (Signature) Date/Time 2. Received by: (Signature) SAMPLE CONDITION UPON RECEIPT IN LAB **REMARKS / SAMPLE COMMENTS** 8/21/24 1. CUSTODY SEALS: 2. CONTAINERS CORRECT: COC/LABELS AGREE: 3. Relinquished by: (Signature) Date/Time 4. Received by lab: (Signature) 4. RECEIVED ON ICE: Jami 5. TEMPERATURE ON RECEIPT: **ННТ#** 5 6. TEMPERATURE GUN ID: Nelson FOR COMPLETION BY LAB ONLY



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

04 September 2024

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

Project: Lagoon Discharge Sample

Project Number: August 2024

SDG Number: 2408630

Enclosed are the results of analyses for samples received by the laboratory on 28-Aug-24 14:50. If you have any questions concerning this report, please feel free to contact me.

Sample Receipt Information:

Custody Seals	✓
Containers Correct	
COC/Labels Agree	<i>~</i>
Received On Ice	~
Temperature on Receipt	2.0°C

Sincerely,

Norma James

Technical Director

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04 September 2024

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

Project: Lagoon Discharge Sample

Project Number: August 2024 Date Received: 28-Aug-24 14:50

CASE NARRATIVE

Sample Delivery Group - 2408630

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:

Qualifier 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 failed 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).



Project: Lagoon Discharge Sample Project Number: August 2024 Date Received: 28-Aug-24 14:50



ANALYTICAL RESULTS

Lab Number: 2408630-01

Sample Name: Lagoon Discharge Grab (Wynne)

Date/Time Collected: 8/28/24 10:00 Water

Sample Matrix:

Wet Chemistry	<u>Units</u>	Result	Qualifier(s)	Date/Time Analyzed	<u>Batch</u>	<u>Method</u>
Ammonia as N	mg/L	< 0.500		8/30/24 8:21	B408607	SM 4500-NH3 B,D,C-2021/EPA
Fecal Coliforms	MPN/100 mL	1600		8/28/24 15:00	B408600	IDEXX Colilert-18
TSS	mg/L	57.5		8/30/24 14:59	B408605	SM 2540 D-2015
CBOD	ma/L	12.4	R_0/	8/29/24 7:45	B408568	SM 5210B-2016

ANALYTICAL RESULTS

2408630-02 Lab Number:

Sample Name: Lagoon Discharge Field Analysis (AR Analytical)

Date/Time Collected: 8/28/24 11:29

Sample Matrix: Water

Field Analyses	<u>Units</u>	Result	Qualifier(s)	Date/Time Analyzed	<u>Batch</u>	<u>Method</u>
Dissolved Oxygen	mg/L	16.6		8/28/24 11:29	B409020	SM 4500-O G-2011
рН	S.U.	9.15		8/28/24 11:29	B409018	SM 4500-H+ B-2011
Temperature	°C	30.9		8/28/24 11:29	B409019	SM 2550B-2000

Project: Lagoon Discharge Sample Project Number: August 2024 Date Received: 28-Aug-24 14:50

Date Received: 28-Aug-24 14:50

QUALITY CONTROL RESULTS

Arkansas Analytical
lnc.

	Prepared: 29-		istry Bato 5 Bv: KD		•	•	45 Bv: CGF		
<u>Analyte</u>	BLK	LCS / L			S / MSD		Dup	RPD	Qualifiers
CBOD	<2.00 mg/L	137% /		NA	1	NA		8.48%	
			istry Bato		-	-			
	Prepared: 28	3-Aug-24 14:3	80 By: KJ				:30 By: KJ		
<u>Analyte</u>	BLK	LCS / L			S / MSD	_	<u>Dup</u>	<u>RPD</u>	Qualifiers
Fecal Coliforms	<1 MPN/100 mL	NA /	NA	NA	/	NA	ND MPN/100 mL	NA	
	Duomana di 20		istry Bato		•	•	.50 D DU		
	Prepared: 30						_	DDD	O. alifiana
Analyte	<u>BLK</u>	LCS / L			S / MSD	-	<u>Dup</u>	RPD	Qualifiers
TSS	<1.00 mg/L	86.0% /	95.0%	NA	1	NA		9.94%	
		Wet Chem	istry Bato	h: B40860	7 (Wat	ter)			
	Prepared: 30)-Aug-24 08:2	21 By: KJ	Analyzed:	30-Au	ıg-24 08	:21 By: KJ		
<u>Analyte</u>	<u>BLK</u>	LCS / L	CSD	MS	S / MSD	<u>)</u>	<u>Dup</u>	<u>RPD</u>	Qualifiers
Ammonia as N	<0.500 mg/L	98.2% /	NA	97.5%	/	98.3%		0.756%	
		Field Analy	yses Bato	h: B40901	8 (Wat	ter)			
	Prepared: 28	-Aug-24 08:4	1 By: MH	Analyzed:	28-A u	ıg-24 08	:41 By: MH		
<u>Analyte</u>	<u>BLK</u>	LCS / L	CSD	MS	S / MSD	<u>)</u>	<u>Dup</u>	RPD	Qualifiers
pH (Field)	NA	100% /	100%	NA	/	NA		0.00%	
		Field Analy	yses Bato	h: B40901	9 (Wat	ter)			
	Prepared: 28	-Aug-24 13:3	5 By: MH	Analyzed:	28-A u	ıg-24 13	:35 By: MH		
Analyte	<u>BLK</u>	LCS / L	CSD	MS	S / MSD	<u>)</u>	<u>Dup</u>	RPD	Qualifiers
Temperature (Field)	NA	NA /	NA	NA	/	NA	30.0 °C	0.333%	
		Field Analy	yses Bato	h: B40902	0 (Wat	ter)			
	Prepared: 28	-Aug-24 13:3	5 By: MH	Analyzed:	28-Au	ıg-24 13	:35 By: MH		
<u>Analyte</u>	<u>BLK</u>	LCS / L	CSD	MS	S / MSD	<u>)</u>	<u>Dup</u>	RPD	Qualifiers
	NA		NA				4.60 mg/L	0.650%	

QUALIFIER(S)

*B-04: Test replicates show a >30% difference between the highest and lowest values

04 September 2024

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

Project: Lagoon Discharge Sample Project Number: August 2024 Date Received: 28-Aug-24 14:50



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.

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

				AB ONLY	FOR COMPLETION BY LAB ONLY		100		July		Revision 3
		-		ннт# 🖰		6. TEMPERATURE GUN ID:	No con		46848)	1
		T		<i>ک</i> ر ٔ		5. TEMPERATURE ON RECEIPT:	Jami		1450		
			No	Yes	ICE:	(Signature) 4. RECEIVED ON ICE:	4. Received by lab: (Signature)		Date/Time	y: (Signature)	3. Relinquished by: (Signature)
		T	No	Yes	GREE:	3. COC/LABELS AGREE:	3				
		T	No	Yes	CORRECT: _	2. CONTAINERS CORRECT:	last last			,	N.
		T	No	Yes	LS:	1. CUSTODY SEALS:	25		8/28		hin
REMARKS / SAMPLE COMMENTS	REMAR		V LAB	ECEIPTI	SAMPLE CONDITION UPON RECEIPT IN LAB		2. Received by: (Signature)		Date/Time	y: (Signature)	1. Relinguished by: (Signature)
	835				1134	Time 1/25					
Slope 2	10 @		,		1652	Dissolved Oxygen (mg/L) 1657					
1	7	14	148	SHI	1134	Time //29					
Time QC Time	4	224	22	22.5	30.7	Temperature (°C) 10.9					
D.O. Chlorine	pH / Time	128	00)	840	1134	Time //29					
Id Calibration Record DATE: 828744	Field Calibra	202	`	200	9/9	pH (S.U.) 915					
	ite	QC Duplicate	QC	a QC	Duplicate	Sample					
		768	TE:82	cal DA	Arkansas Analyti	ONSITE MEASUREMENTS by Arkansas Analytical DATE: 87874					
										1 1	
02				×	s (AR Analytical)	Water Lagoon Discharge Field Analysis (AR Analytical)	0 Wat	×	1129	80820	
01		×	×		9)	Water Lagoon Discharge Grab (Wynne)	3 Wat	×	IDAN	8778	
2408430	Fed		СВ		RIPTION	IDENTIFICATION/ DESCRIPTION	Comp Bottles Matrix	Grab	Time/s	Date/s	Number
	al C	moni	OD,			SAMPLE	ē		SAMPLE COLLECTION	SAMPLE C	Field
Order Number:	oliforr		TSS	H, D.(ature)		MOHS, HADSAD,	Sampler(s) Printed:	Sam		nature 1	Sampler(s) Signature
Arkansas Annwiical Work	n			D.,		Josh Wence	Jose			h ha	Dem
V = Septum; A = Amber		P	P	ס	Bottle Type:	Email: jweaver.wwu@gmail.com					
G = Glass; P = Plastic	4	2 1,4	1 1,2		Preservative Code:	Fax: 870-238-2044				aver	Attn: Josh Weaver
TERS Bottle Type Code	PARAME	EST	I		5 Day (Routine)	Telephone: 870-238-2751					
6. Sodium Hydroxide (NaOH), pH > 12	2), pH <	Nitric Acid (HNO ₃), pH < 2	3. Nitric	3 Day (25%)	Reporting Information				396	Wynne, AR 72396
5. Hydrochloric Acid(HCl)	<2	SO4), pH	Sulfuric Acid (H ₂ SO ₄), pH < 2	2. Sulfur	2 Day (50%)	Weekly Sample				man	121 East Merriman
4. Thiosulfate for Dechlorination	e	entigrad	Cool, 6 Degrees Centigrade	1. Cool, 6	1 Day (100%)	Lagoon Discharge Sample				Utilities	Wynne Water Utilities
reservation Codes:	Preservat				Turnaround Time	Project Description				RMATION	CLIENT INFORMATION