

March 3, 2014

Dwayne Allen, Public Works Director City of Eureka Springs 3174 East Van Buren Eureka Springs, AR 72632

**RE:** Compliance Inspection (Carroll Co)

AFIN: 08-00036 NPDES Permit No.: AR0021865

Dear Mr. Allen:

On February 21, 2014, I performed a routine compliance inspection of the wastewater treatment plant in accordance with the provisions of the Federal Clean Water Act, the Arkansas Water and Air Pollution Control Act, and the regulations promulgated thereunder.

No permit violations were noted during this inspection.

See Inspection Report Form for additional comments concerning this inspection (Page 3).

I appreciate the work of Terry Long and Patrick Smith and their efforts to improve operation of the Sequencing Batch Reactor Treatment plant. If you have any questions or would like to discuss this inspection in greater detail, I can be contacted at (870) 446-2770 or by e-mail at <a href="mailto:morris@adeq.state.ar.us">morris@adeq.state.ar.us</a>.

Sincerely,

Vory L morris
Tony L. Morris

District 2 Field Inspector

Water Division

<b>⊕</b> EPA																			Form Ap IB No. 2		
		UNIT	ED STA	TES ENVI				ECTIO:	N AGEI	NCY											
NPDES Compliance Inspection Report																					
Section A: National Data System Coding																					
Transaction 1 N 2		0	0 2	NPDE	8 8	6	5	11	12	1	4 0	/Mo/Da	2	1		î	с. Туре С		Inspec 19 <b>S</b>	tor	Fac. Type
0 8	- 0 0 0	3	6					]	Remai	rks											
Inspection 67	n Work Days 69	]	Facility 70	Evaluat	ion R	ating		71	BI N	72	QA <b>N</b> 73			74	75	Re	served				80
							Sec	tion l	B: Fa	cility	Data										
include POTW	tion of Facility Inspected	t num	ber)	rial user.	s disc	hargir	ng to I	POTV	W, also	9	Entry Tim 09:00 Feb			014			Permit <b>Aarch</b>		ctive Da	te	
City of Eureka Springs Waste Water Utility 100 Hwy 23 North Eureka Springs, AR 71632 Carroll County  Exit Time/Date 11:45 February 21, 2014								Permit Expiration Date February 28, 2018													
Mr. Terry Long/ Plant Operator/ 479-253-7410 N 36									N 36.	ner Facility Data <b>36.4196</b> <b>93.7346</b>											
	ıren						974				Yes	Conta	cted No 🗖	]	PDS# 076362						
			(S	= Satisf							ring Inspe		Evalu:	ated)							
S Permit		S		Measur					S	T -	erations &				N	S	amplii	ng			
S Records/	Reports	S	Self-	Monitor	ring P	rogra	ım		S	Slu	dge Handli	ng/Dis	posal		N	P	ollutio	on Pr	eventio	n	
S Facility S	ite Review	N	Com	pliance	Scheo	dules			N	Pre	treatment				N	N	Iultim	iedia			
S Effluent/	Receiving Waters	N		oratory					N		rm Water				S	O	ther:	Efflu	ient Lir	nits	
Section D: Summary of Findings/Comments (Attach additional sheets if necessary)  - During this inspection, the plant discharge was observed to be clear and free of grease and solids. However, conspicuous sludge banks were observed in East Leatherwood Creek below the plant outfall (see attached photo). According to the Operator, the automated decant pipe dropped into the sludge blanket overnight on or about February 17, 2014. This resulted in the discharge of activated sludge from one reaction vessel of the sequencing batch reactor treatment plant. Sludge banks were limited to a short distance downstream of the plant outfall. An upset report will be submitted to ADEQ along with the DMR.  - DMRs for July through December 2013 were reviewed. The plant discharge was well below the permitted limits for these months. A lift station overflow was documented and reported to ADEQ in August 2013.																					
- The	e Lake Side grit and gr e two sequencing batch les. The grease cap obs	react	tor vess	sels were	e obse	rved 1	to be	in go	od co	nditio	n with very		_				rface (	durin	ng the s	ettling	and fill
Name(s) and S  Tony L. Morri	gnature(s) of Inspector(s	-				AR	Dept.	of E		nmen	Fax t <b>al Quality-</b> -837-6978 (	•	r Fiel	d Offi	ee		Date February 24, 2014				
·																					
Signature of Ro	viewer Kerri M <sup>c</sup> Chy									one and Fax Numbers 1-682-0642					Date February 28, 2014						

## **Additional Comments:**

Operation of the treatment plant continues to improve. The treated effluent discharged to East Leatherwood Creek is consistently well below permit discharge limits. I was particularly pleased to see that the grease cap on both reactor vessels had been manually skimmed off by the operators. This was a particularly labor intensive task but it allows the operators to visually monitor the treatment process.

I was disappointed to find the Lakeside grit and grease unit was out of service due to a breakdown. Hopefully, it will be repaired in the near future. I also noted conspicuous sludge banks within eddies of the receiving stream below the permitted outfall. According to the operator, an upset occurred in which the decant pipe dropped too deep and discharged from the sludge blanket rather than the supernatant. An upset report will be submitted with the February 2014 DMR.

ADEQ Water NPDES Inspection	AFIN: <b>65-00015</b>	Permit #: AR0034657

SECTION A: PERMIT VERIFICATION	
PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS	☑S ☐M ☐U ☐NA ☐NE
DETAILS:	
1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE:	Øy □n □na □ne
2. NOTIFICATION GIVEN TO EPA/STATE OF NEW DIFFERENT OR INCREASED DISCHARGES:	☑Y □N □NA □NE
3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT:	☑Y □N □NA □NE
4. ALL DISCHARGES ARE PERMITTED:	☑Y □N □NA □NE
SECTION B: RECORDKEEPING AND REPORTING EVALUATION	
RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT	☑S ☐M ☐U ☐NA ☐NE
DETAILS:	
1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRS:	☑Y □N □NA □NE
2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE:	⊠s □m □u □na □ne
a. DATES AND TIME(S) OF SAMPLING:	Øy □n □na □ne
b. EXACT LOCATION(S) OF SAMPLING:	☑Y □N □NA □NE
c. NAME OF INDIVIDUAL PERFORMING SAMPLING:	☑Y □N □NA □NE
d. ANALYTICAL METHODS AND TECHNIQUES:	☑Y □N □NA □NE
e. RESULTS OF CALIBRATIONS:	☑Y □N □NA □NE
f. RESULTS OF ANALYSES:	Øy □n □na □ne
g. DATES AND TIMES OF ANALYSES:	☑Y □N □NA □NE
h. NAME OF PERSON(S) PERFORMING ANALYSES:	☑Y □N □NA □NE
3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE:	□S □M □U □NA ☑NE
4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR:	□S □M □U □NA ☑NE
5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA:	Øy □n □na □ne
SECTION C: OPERATIONS AND MAINTENANCE	
TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED	S MM □U □NA □NE
DETAILS:	
1. TREATMENT UNITS PROPERLY OPERATED:	☑S ☐M ☐U ☐NA ☐NE
2. TREATMENT UNITS PROPERLY MAINTAINED:	☑s ☐m ☐u ☐na ☐ne
3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED:	☑S ☐M ☐U ☐NA ☐NE
4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE:	☑S ☐M ☐U ☐NA ☐NE
5. ALL NEEDED TREATMENT UNITS IN SERVICE:	☑S ☐M ☐U ☐NA ☐NE
6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED:	☑S ☐M ☐U ☐NA ☐NE
7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED:	□s □m □u □na ☑ne
8. OPERATION AND MAINTENANCE MANUAL AVAILABLE:	☑Y □N □NA □NE
9. STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED:	☑Y □N □NA □NE
10. PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED:	☑Y □N □NA □NE
11. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR:	☑Y □N □NA □NE
12. IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED:	☑Y □N □NA □NE
13. HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS:	☑Y □N □NA □NE
14. HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT:	□Y ☑N □NA □NE
15. IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT:	□Y □N ☑NA □NE

ADEQ Water NPDES Inspection	AFIN: <b>65-00015</b>	Permit #: AR0034657

SE	ECTION D: SAMPLING	
PE	RMITTEE SAMPLING MEETS PERMIT REQUIREMENTS	☑S □M □U □NA □NE
DE	TAILS:	
1.	SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT:	☑y □n □na □ne
2.	LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES:	☑Y □N □NA □NE
3.	FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT:	☑y □n □na □ne
4.	SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT:	☑Y □N □NA □NE
5.	SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT:	☑Y □N □NA □NE
6.	SAMPLE COLLECTION PROCEDURES ADEQUATE:	☑Y □N □NA □NE
а	. SAMPLES REFRIGERATED DURING COMPOSITING:	☑Y □N □NA □NE
b	. PROPER PRESERVATION TECHNIQUES USED:	☑Y □N □NA □NE
С	. CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136:	☑Y □N □NA □NE
7.	IF MONITORING IS PERFORMED MORE OFTEN THAN REQUIRED ARE RESULTS REPORTED ON THE DMR:	□Y □N ☑NA □NE
SE	ECTION E: FLOW MEASUREMENT	
PE	RMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS	☑S □M □U □NA □NE
DE	TAILS: Flow devices were within acceptable accuracy.	
1.	PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED: TYPE OF DEVICE: 9" Parshall Flui	ne ☑Y □N □NA □NE
2.	FLOW MEASURED AT EACH OUTFALL AS REQUIRED:	☑Y □N □NA □NE
3.	SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED: Sonic Device	☑Y □N □NA □NE
4.	CALIBRATION FREQUENCY ADEQUATE:	☑Y □N □NA □NE
5.	RECORDS MAINTAINED OF CALIBRATION PROCEDURES:	☑y □n □na □ne
6.	CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE:	☑y □n □na □ne
7.	FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE:	☑Y □N □NA □NE
8.	FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES:	☑y □n □na □ne
9.	HEAD MEASURED AT PROPER LOCATION:	☑Y □N □NA □NE
SE	ECTION F: LABORATORY	
PE	RMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS	☑S □M □U □NA □NE
DE	ETAILS:	
1.	EPA APPROVED ANALYTICAL PROCEDURES USED (40 CFR 136.3 FOR LIQUIDS, 503.8(B) FOR SLUDGES) :	☑Y □N □NA □NE
2.	IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED:	□y □n □na ☑ne
3.	SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT:	□y □n □na ☑ne
4.	QUALITY CONTROL PROCEDURES ADEQUATE:	□y □n □na ☑ne
5.	DUPLICATE SAMPLES ARE ANALYZED ≥10% OF THE TIME:	□y □n □na ☑ne
6.	SPIKED SAMPLES ARE ANALYZED ≥10% OF THE TIME:	□y □n □na Øne
7.	COMMERCIAL LABORATORY USED:	☑Y □N □NA □NE
а	. LAB NAME:_ESC	
b	. LAB ADDRESS: 1107 Century Springdale, AR 72764	
С	. PARAMETERS PERFORMED: CBOD. TSS, NH3-N, Fecal Coliform, Nitrate+Nitrite Nitrogen, Phosphorous	
8.	BIOMONITORING PROCEDURES ADEQUATE:	□y □n ☑na □ne
а	. PROPER ORGANISMS USED:	□Y □N ☑NA □NE
b	. PROPER DILUTION SERIES FOLLOWED:	□y □n ☑na □ne
С	. PROPER TEST METHODS AND DURATION:	□y □n ☑na □ne
d	. RETESTS AND/OR TRE PERFORMED AS REQUIRED:	□y □n ☑na □ne

ADEQ Water NPDES Inspection AFIN: 65	5-00015	Permit #: AR0034657

SE	CTION	G: EFFLUEI	NT/RECEIVIN	IG WATERS	OBSERVATION	ONS						
		N VISUAL OBS			<u>JBOLKVAIR</u>		Пѕ₩	□U □NA □NE				
					ease Sludge b	anks in creek. Re						
	_	OIL SHEEN	GREASE	TURBIDITY	VISIBLE FOAM	FLOATING SOLIDS	COLOR	OTHER				
- 00	001	none	none	none	none	none	clear	OTHER				
	001	none	Clear									
919	CTION	H: SLUDGE	DISBOSAL									
		DISPOSAL ME		PEOLIIDEMENI	re		Дс □м	□U □NA □NE				
							M2 UNI	LU LINA LINE				
	DETAILS: <u>composted with yard waste with backup land application to forage crops</u> 1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY:    Management Adequate To Maintain Effluent Quality:   Management Adequate To Maintain Effluent Effluent Adequate To Maintain Effluent Effluent E											
1.		ECORDS MAINTAINED										
2.					ACDICULTUDAL DUE	OLIO CONTACT CITE/:		☐M ☐U ☐NA ☐NE				
3.	FOR LAND	APPLIED SLUDGE, IN	PE OF LAND APPLIED	0 10: (E.G., FOREST,	AGRICULTURAL, PUE	BLIC CONTACT SITE): co	mpostea, surpit	us is ianofilieo				
01	CTION	I: SAMPLIN	C INCRECTION	NI DDOCEDI	IDEC							
		RESULTS WITH					□с□м	□U □NA ☑NE				
	TAILS:	CESULIS WIIF	IIN PERIVIII R	EQUIRENIENI	S			LU LINA MINE				
		OBTAINED THIS INSPE	TOTION:					□Y □N □NA ☑NE				
1.				AETHOD EDEOUE	NOV			LIT LIN LINA MINE				
2. 3.		SAMPLE: GRAB: PRESERVED:	LCOMPOSITE: N	/IETHOD: FREQUE	NCY:			□Y □N □NA ☑NE				
3. 4.		PRESERVED.  PORTIONED SAMPLE	S OBTAINED:					□Y □N □NA ☑NE				
		BTAINED FROM FACIL		/ICE:				□Y □N □NA ☑NE				
5.		EPRESENTATIVE OF						□Y □N □NA ☑NE				
6. 7.		PLIT WITH PERMITTER		E OF DISCHARGE:				OY ON ONA MINE				
8.		CUSTODY PROCEDU						□Y □N □NA ØNE				
9.		COLLECTED IN ACCO		IT.				□Y □N □NA ☑NE				
9.	SAIVIFLES	COLLECTED IN ACCO	RDANCE WITH PERIVI					LIT LIN LINA MINE				
919	CTION	J: STORM V	WATER BOLL	LITION DDEN	/ENTION DI /	A NI						
		ATER MANAG					□е□м	□U □NA ☑NE				
	ETAILS:	ATEN WANAG	LIVILINI IVILLI	3 FLIXIVIII IXL	QUINCIVICINIO		ЦЗ ЦІЙ	LIU LINA MINE				
1.		PDATED AS NEEDED:	DATE OF LAST UP	DATE:				□Y □N □NA ☑NE				
			_					□Y □N □NA ☑NE				
SITE MAP INCLUDING ALL DISCHARGES AND SURFACE WATERS:     POLLUTION PREVENTION TEAM IDENTIFIED:								□Y □N □NA ☑NE				
				·				□Y □N □NA ☑NE				
								□Y □N □NA ☑NE				
								DY DN DNA ØNE				
7. ALL NON-STORM WATER DISCHARGES ARE AUTHORIZED:												
8.												
9.		ON-STRUCTURAL BMF	os.					□Y □N □NA ☑NE				
		PERLY OPERATED AT						□Y □N □NA ☑NE				
		ONS CONDUCTED AS I						DY DN DNA ØNE				
	LOTIC	CONDOCIED ACI						L. LI LIN BINE				

FLOW CALCULATION SHEET										
Date: 02/21/14 Time: 09:47										
Head in Inches: <b>20.375</b> Feet: <b>1.697</b>										
Type & Size of Primary Flow Measurement Device: 9 Inch Parshall Flume										
Name & Mo	odel of Secondary	/ Flow Measurem	ent Devi	ce: Hac	h Sonic					
Date of last	t Calibration of Se	econdary Flow De	evice: 12/	3/13						
	Flow at Date & Tip	-		0/10	/[-	soility Flow Motor				
					(Fa	acility Flow Meter)				
	Flow at Date & T			mga ement Handb	ook-5 <sup>th</sup> Edition	on)				
% Error =	Recorded Value	e - Calculated	l Value	X 100						
0.4	1.716	- 1.69	7	), 400						
% Error =		1.697		X 100						
% Error =	.019 1.697	X 100								
0/ Expor		V 100								
% Error =	0.011	X 100								
% Error =	1	%								
Comments: Flow is within acceptable accuracy range										

## **DMR Calculation Check**

Reporting Period: From 2013 12 01 To 2012 12 31

Year Month Day Year Month Day

Parameter Checked: CBOD

	Loading Mass		entration onthly
	Mo. Avg lbs/day	Mo. Avg mg/l	7-day Avg mg/l
Reported Value:	9.2	2.7	4.0
Calculated Value:	9.2	2.6	4.0
Permit Value:	75.1	10	15

If calculated value does not equal reported value, explain: <u>Values are equal.</u>

## **DMR Calculation Check**

Reporting Period: From 2013 12 01 To 2012 12 31 Year Month Day Year Month Day

Parameter Checked: TSS

Loading **Concentration** Mass **Monthly** Mo. Avg. - lbs/day 7-day Avg. - mg/l Mo. Avg. - mg/l **Reported Value:** 13.5 4 8 3.78 **Calculated Value:** 13.46 8 112.6 22.5 **Permit Value: 15** 

If calculated value does not equal reported value, explain: Values are equal.

Water Division NPDES Photographic Evidence Sheet										
Location:	Location: Eureka Springs POTW									
<b>Photographer:</b>		Tony Morris			Witness:	City of Eureka Springs personnel				
Photo #	1	Of	6		Date:	02/21/14	Time:	10:29		
Description:	<b>Description:</b> The Lakeside grit and grease removal unit at the plant head works was down for repairs.									



Photographer:		Tony N	Morris		Witness:	City of Eureka Springs personnel		
Photo #	2	Of 6			Date:	02/21/14	<b>Time:</b> 11:15	
Description	:	Aeratio	on cycle i	n SBR tank with brown-c	olored activ	ated sludge ind	icative of v	igorous bacteria.



	Water Division NPDES Photographic Evidence Sheet										
Location: Eureka Springs POTW											
Photograph	er: T	Tony Morris			Witness:	City of Eureka Springs personnel					
Photo #         3         Of         6         Date:         02/21/14         Time:         11:08						11:08					
<b>Description:</b> Settling cycle in SBR tank. Clear supernatant with good sludge settleability: decant pipe vis											



Photographer:Tony MorrisWitness:City of Eureka Springs personnelPhoto #4Of6Date:02/21/14Time:10:59

**Description:** Post-treatment aeration tank during SBR decant cycle; prior to disinfection and discharge.



