

**ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY
MONITORING REPORT FOR DECENTRALIZED WASTEWATER TREATMENT FACILITIES VIA DRIP IRRIGATION
NO DISCHARGE MONTHLY MONITORING REPORT**

PERMITTEE NAME
CITY OF CAVE SPRINGS
PERMITTEE ADDRESS
PO Box 5 Cave Springs AR 72718

FACILITY NAME
CAVE SPRINGS WASTEWATER TREATMENT PLANT
FACILITY ADDRESS
The Creeks Golf Course 1499 S Main St Cave Springs AR 72718

PERMIT NO.
4893-WR-3
AFIN NO.
04-01642

MONITORING PERIOD		
MM/DD/YYYY	TO	MM/DD/YYYY
10/1/2019		10/31/2019


EFFLUENT LIMITS, MONITORING, AND REPORTING REQUIREMENTS						
PARAMETER	PERMIT LIMIT	SAMPLE MEASUREMENT		UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		Plant 1	Plant 2			
CARBONACEOUS BIOCHEMICAL OXYGEN DEMAND (CBOD ₅)	30	3.2	< 2.0	MG/L	Once per Month / Grab	
TOTAL SUSPENDED SOLIDS (TSS)	45	8	6.2	MG/L		
FECAL COLIFORM BACTERIA (FCB)	10,000	410.6	< 1.0	COLONIES/100ml		
pH	6.0 - 9.0	6.4	6.6	s.u		
TOTAL PHOSPHOROUS (TP)	Report	4.84	5.71	MG/L		
TOTAL KJELDAHL NITROGEN (TKN)	Report	20	10	MG/L	Once per Quarter / Grab	
NITROGEN AMMONIA NITROGEN (NH ₃ - N)	Report	9.93	9.62	MG/L		
NITRITE NITROGEN (NO ₂ - N) + NITRATE NITROGEN (NO ₃ - N)	Report	40.4	41.6	MG/L		
PLANT AVAILABLE NITROGEN (PAN)	Report	53.5	51.4	MG/L		
TOTAL FLOW		MONTHLY TOTAL	DAILY MAX	GPD		
		4,883,585	260,568			
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT.	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		TELEPHONE		DATE
Kathy Bartlett				479	530-5926	11/14/2019
TYPED OR PRINTED			AREA CODE	NUMBER	MM/DD/YYYY	
COMMENTS AND EXPLANATION OF VIOLATIONS <i>(Reference all attachments here)</i>						

TABLE II

DRIP ZONES LOADING RATE LIMITS, MONITORING AND REPORTING REQUIREMENTS

		Oct-19			DAILY MAXIMUM FLOW TOTAL		260,568
Zone ID	Limit	Units	Maximum Volume Limit	Units	Monitoring	Reported Maximum	
Leach Field 1	0.55	gpd/ft2	26,000	gpd	Daily	18761	
Zone 1	0.42		19,524			<i>zones not being used</i>	
Zone 2	0.45		19,309				
Zone 3	0.4		16,424				
Zone 4	0.46		10,811				
Zone 5	0.2		13,059			9642	
Zone 6	0.2		7,723			5733	
Zone 7	0.2		10,910			7818	
Zone 8	0.3		7,081			5212	
Zone 9	0.4		18,291			13289	
Zone 10	0.3		9,450			6775	
Zone 11	0.2		4,110			3127	
Zone 12	0.4		7,522			5472	
Zone 13	0.25		5,717			4170	
Zone 14	0.15		6,097			4430	
Zone 15	0.2		8,378			6254	
Zone 16	0.4		9,427			6775	
Zone 17	0.23		3,694			2606	
Zone 19	0.35		13,778			9902	
Zone 20	0.2		5,766			4170	
Zone 21	0.4		17,040			12508	
Zone 22	0.5		28,113			20325	
Zone 23	0.25		15,640			11205	
Zone 24	0.25		9,547			7036	
Zone 25	0.2		4,436			3127	
Zone 26	0.3		9,334			6775	
Zone 27	0.31		16,511			11987	
Zone 28	0.31		13,018			9381	
Zone 29	0.2		3,923			2867	
Zone 30	0.55		10,116			7296	
Zone 31	0.3		5,714			4170	

Environmental Services Company, Inc.

Corporate Office
 13715 West Markham
 Little Rock, AR 72211
 Tel. (501)221-2565 Fax (501)221-1341

Northwest Arkansas Branch
 1107 Century Avenue
 Springdale, AR 72762
 Tel. (479)750-1170 Fax (479)750-1172

Control Number: 1910020034	Sample Date : 10/02/19	Collected By: NTR
Customer Name : CAVE SPRINGS, CITY OF OUTFALL 2	Sample Time : 1136	Delivery By : NTR
Customer/Permit No. : 2379 / 4893-WR-3 002	Sample Type : GRAB	Work Order :
Report Date : 10/10/19	Sample From : EFFLUENT DIVERTER BX	Purchase Order :

<u>Laboratory Analysis</u>							<u>Quality Assurance</u>	
<u>Analysis</u>			<u>Result</u>	<u>Notes</u>	<u>Quantity</u>	<u>Method</u>	<u>Precision</u>	<u>Accuracy</u>
<u>Date</u>	<u>Time</u>	<u>By</u>					<u>Parameter</u>	<u>% RPD</u>
10/03	1000	TSB	Ammonia as N, (HACH 10205)	9.62 mg/L		SM 2011 4500-NH3 F	0.20	98.0 *
10/08	1000	TSB	Total Kjeldahl Nitrogen	10.2 mg/L		02/2014 HACH 10242	6.90	99.0 *
10/02	1145	NTR	pH	6.6 S.U.		SM 2011 4500-H+ B	0.00	N/A *
10/03	1400	TSB	Phosphorous, Total (as P)	5.710 mg/L		EPA 365.3	1.28	110.0 *
10/04	1430	TSB	Solids, Total Suspended	6.2 mg/L		SM 2011 2540 D	5.24	N/A *
10/02	1700	TSB	Fecal Coliform (MPN/100mL)	< 1.0 /100ml		06/2012 Colilert18	0.00	0.0 *
10/02	1630	TSB	BOD, Carbonaceous	< 2.0 mg/L		SM 2001 5210 B	1.52	95.8 *
10/03	1300	TSB	Nitrate + Nitrite	41.60 mg/L		01/2013 HACH 10206	1.21	97.0 *
10/09	1030	TSB	Nitrogen, Plant Available	51.4 mg/L		SM 1997 4500-N		

* QA data shown is from a different sample or standard on the same date.

All equipment used is checked and/or calibrated daily. All NPDES testing is conducted in accordance with 40 CFR Part 136. A minimum of 10% spiked and duplicate samples is run on each parameter where applicable for Quality Assurance purposes. Quality Assurance Plan on file with Arkansas Department of Environmental Quality. Analysis time indicates the time of the start of the analytical batch in which the specific sample was included.

Signature _____


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 1107 Century Street
 Springdale, Arkansas 72762
 website: www.esclabs.com



Corporate Office, Little Rock, Arkansas
 501-221-2565

Carlsbad, New Mexico
 575-887-1ESC

Phone: 479-750-1170 Fax: 479-750-1172

CHAIN OF CUSTODY

Client Information						Project Information					Requested Parameters											
Company Name:		Cave Springs Plant 2		Permit/Project #:							pH(23)	Fecal Coliform(43.IF)	CBOD(70), TSS(28)	NH3(15.A), P(25), TKN(16.A)	PAN(99.99), NO3+NO2 (91)							
Address:		PO BOX 5		Purchase Order #:																		
		Cave Springs 72718		Sampler Name(s):		Ned Ryerson																
Telephone:		479 248-1040		and Signature(s):		Ned Ryerson																
FAX:																						
ESC Client Number:		2379																				
Sample Identification		Sample Collection				Sample Containers																
Identification	ESC Control #	Date	Time	Type	Matrix	Type	Volume	Preservative	#													
Effluent Diverter Box	1910020034	10-2-19	1136	Grab	Water	Teflon	150 ml	none	1	x												
				Grab	Water	whirlpak	300 ml	none/ice	1		x											
				Grab	Water	Plastic	0.5 gal	none/ice	1			x										
				Grab	Water	Plastic	8 oz	H ₂ SO ₄ , pH <2	1				x	x								
Relinquished By: (Signature and Printed Name)		Date	Time	Received By: (Signature and Printed Name)		Date	Time	Custody Seals:		Used? <input checked="" type="checkbox"/>		Intact? <input type="checkbox"/>										
Relinquished By: (Signature and Printed Name)		Date	Time	Received By: (Signature and Printed Name)		Date	Time	Turnaround:		Regular <input checked="" type="checkbox"/>		Special <input type="checkbox"/>										
Relinquished By: (Signature and Printed Name)		Date	Time	Received for Lab By: (Signature and Printed Name)		Date	Time	Were samples properly preserved:		Yes <input checked="" type="checkbox"/>		No <input type="checkbox"/>										
Comments:				FLOW DATA		Field Test	Time	Analyst	Result	Result	Units											
				Analyst:		pH:	1145	NTR	6.6	6.6	°C											
				Time:		Temp.:	1145	NTR	26.2	26.4	°F											
				Reading:		DO:																
				Units:		Debris:																
Cool all samples to 6 degrees C.										Chlorinated? Yes No		This Document is Page 1 of 1										

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Control Number: 1910020055
 Customer Name : CAVE SPRINGS UTILITY, OUTFALL 1
 Customer/Permit No. : 1826 / 4893-WR-2
 Report Date : 10/10/19

Sample Date : 10/02/19
 Sample Time : 1118
 Sample Type : GRAB
 Sample From : EFFLUENT DOSE TANK

Collected By: NTR
 Delivery By : NTR
 Work Order :
 Purchase Order :

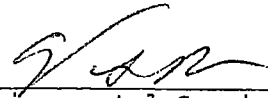
Laboratory Analysis

Analysis							Quality Assurance		
Date	Time	By	Parameter	Result	Notes	Quantity	Method	Precision % RPD	Accuracy % Recovery
10/03	1000	TSB	Ammonia as N, (HACH 10205)	9.93 mg/L			SM 2011 4500-NH3 F	0.20	98.0 *
10/08	1000	TSB	Kjeldahl Nitrogen Total	20.45 mg/L			SM 1997 4500-NorgB	0.61	99.0 *
10/02	1119	NTR	pH	6.4 S.U.			SM 2011 4500-H+ B	0.00	N/A *
10/03	1400	TSB	Phosphorous, Total (as P)	4.840 mg/L			EPA 365.3	1.28	110.0 *
10/04	1430	TSB	Solids, Total Suspended	8.0 mg/L			SM 2011 2540 D	11.61	N/A *
10/02	1700	TSB	Fecal Coliform (MPN/100mL)	410.6 /100ml			06/2012 Colilert18	0.00	0.0 *
10/02	1630	TSB	BOD, Carbonaceous	3.2 mg/L			SM 2001 5210 B	1.52	95.8 *
10/03	1300	TSB	Nitrate + Nitrite	40.40 mg/L			01/2013 HACH 10206	1.21	97.0 *
10/09	1030	TSB	Nitrogen, Plant Available	53.5 mg/L			SM 1997 4500-N		

* QA data shown is from a different sample or standard on the same date.

All equipment used is checked and/or calibrated daily. All NPDES testing is conducted in accordance with 40 CFR Part 136. A minimum of 10% spiked and duplicate samples is run on each parameter where applicable for Quality Assurance purposes. Quality Assurance Plan on file with Arkansas Department of Environmental Quality. Analysis time indicates the time of the start of the analytical batch in which the specific sample was included.

Signature _____


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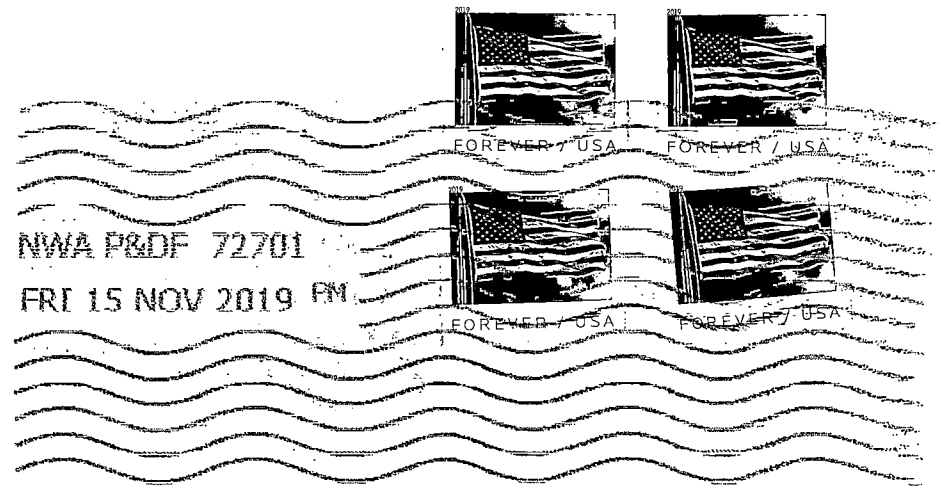
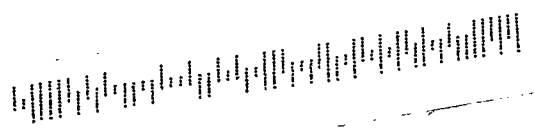
Phone: 479-750-1170 Fax: 479-750-1172

CHAIN OF CUSTODY

Client Information				Project Information						Requested Parameters										
Company Name: Cave Springs Plant 1				Permit/Project #:						pH(23)	Fecal Coliform(43.1F)	CBOD(70), TSS(28), NO2(19)	NH3(15-A), P(25), TKN(16-A), NO3(18)	PAN(99.99), %Solids(82)						
Address: PO BOX 5				Purchase Order #:																
Cave Springs 72718				Sampler Name(s): Ned Ryerson																
Telephone: 479 248-1040				and Signature(s): <i>Ned Ryerson</i>																
FAX:																				
ESC Client Number: 1826																				
Sample Identification		Sample Collection				Sample Containers														
Identification	ESC Control #	Date	Time	Type	Matrix	Type	Volume	Preservative	#											
Effluent/Dose Tank	1910020055	10-2-19	1118	Grab	Water	Teflon	150 ml	none	1	X										
I	I	I	I	Grab	Water	whirlpak	300 ml	none/ice	1		X									
				Grab	Water	Plastic	1 qt	none/ice	1			X		X						
				Grab	Water	Plastic	8 oz	H ₂ SO ₄ , pH <2	1				X							
Relinquished By: (Signature and Printed Name)		Date	Time	Received By: (Signature and Printed Name)		Date	Time	Custody Seals:		Used?	<input checked="" type="checkbox"/>	Intact?	<input type="checkbox"/>							
Relinquished By: (Signature and Printed Name)		Date	Time	Received By: (Signature and Printed Name)		Date	Time	Turnaround:		Regular	<input checked="" type="checkbox"/>	Special	<input type="checkbox"/>							
Relinquished By: (Signature and Printed Name)		Date	Time	Received for Lab By: (Signature and Printed Name)		Date	Time	Were samples properly preserved:		Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>							
Comments: <i>Ned Ryerson</i>		10-2-19 1600		<i>Lament</i>		10-2-19	1600	FLOW DATA	Field Test	Time	Analyst	Result	Result	Units						
								Analyst:	pH:	1119	NTU	6.4	6.4	5K						
								Time:	Temp.:	1119	NTU	25.5	25.7	(C)						
								Reading:	DO:											
								Units:	Debris:											
Cool all samples to 6 degrees C.								Chlorinated? Yes No				This Document is Page 1 of 1								

NWA Utility Services
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72703



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72118-5317