

## **Springdale Water Utilities**

526 Oak Avenue P.O. Box 769 Springdale, Arkansas 72765-0769 (479) 751-5751

Enforcement Branch Arkansas Dept. of Environmental Quality 5301 Northshore Dr. North Little Rock, AR 72118-5317

RE: NPDES Permit No. AR0022063

AFIN #72-00003 Springdale, AR

July 11, 2016

Dear Sir or Madame:

Enclosed please find the results of second quarter Table III analyses conducted on Springdale Water Utilities' wastewater treatment facility influent, effluent and biosolids (belt press influent) for 2016. These analyses are required by our NPDES Permit.

Please feel free to call Ms. Jennifer Enos at (479)756-3657 if you have any questions concerning these analyses.

Sincerely yours,

Heath A. Ward

**Executive Director** 

JEE/jee Enclosures

Cc:

Jennifer Enos, SWU Mary Barnett, ADEQ

File

# Springdale Water Utilities Springdale, Arkansas

System Overflow Report for June 2016

This report submitted to Arkansas Department of Environmental Quality in compliance with Permit Number AR0022063 AFIN: 72-00003

Date	Time	Duration	Address	Est. Vol.	Cause of overflow	Remedial Action	Environmental Impact	Discharge Location
06/18/2016	11:30 am- 11:40 am	10 min	795 N. Shiloh Street Springdale, AR	30 gal	Roots	Spread lime on affected area.	None	Overflow into field
06/23/2016	5:30 pm- 6:30 pm	1 hr	435 Village Lane Springdale, AR	20 gal	Grease	Hydro clean	None	Overflow into storm drain
· · ·								

"I certify under penalty of law that this document and all attachments were prepared under	· my direction or supervision in accordance with a system designed to assure that all qualified personnel properly gather an
evaluate the information submitted. Based on my inquiry of the person or persons who man	age the system, or those persons directly responsible for gathering the information, the information submitted is, to the bes
my knowledge and belief, true, accurate, and complete. I am aware that there are significant	t penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."
4/11/1	·



June 1, 2016 Control No. 202276 Page 1 of 9

Springdale Water Utilities ATTN: Mr. Brad Stewart Post Office Box 769 Springdale, AR 72762

This report contains the analytical results and supporting information for samples submitted on May 18, 2016. Attached please find a copy of the Chain of Custody and/or other documents received. Note that any remaining sample will be discarded two weeks from the original report date unless other arrangements are made.

This report is intended for the sole use of the client listed above. Assessment of the data requires access to the entire document.

This report has been reviewed by the Chief Operating Officer or a qualified designee.

John Overbey ) Chief Operating Officer

This document has been distributed to the following:

PDF cc: Springdale Water Utilities ATTN: Mr. Brad Stewart

bstewart@springdalewater.com



#### SAMPLE INFORMATION

#### **Project Description:**

Four (4) water and one (1) sludge sample(s) received on May 18, 2016 Table III

#### **Receipt Details:**

A Chain of Custody was provided. The samples were delivered in one (1) ice chest. Ice chest #1 was delivered with shipping documentation.

Each sample container was checked for proper labeling, including date and time sampled. Sample containers were reviewed for proper type, adequate volume, integrity, temperature, preservation, and holding times. Any exceptions are noted below:

#### Sample Identification:

Laboratory ID	Client Sample ID	Sampled Date/Time Notes
202276-1	Influent	10-May-2016 1000
202276-2	Influent	10-May-2016 1600
202276-3	Effluent	13-May-2016 0200
202276-4	Effluent	13-May-2016 0800
202276-5	Belt Press Influent	13-May-2016 0800

#### Qualifiers:

X Spiking level is invalid due to the high concentration of analyte in the spiked sample

#### **Case Narrative:**

Analysis of soils/sludges are reported on a dry-weight basis unless otherwise specified.

#### References:

"Methods for Chemical Analysis of Water and Wastes", EPA/600/4-79-020 (Mar 1983) with updates and supplements EPA/600/5-91-010 (Jun 1991), EPA/600/R-92-129 (Aug 1992) and EPA/600/R-93-100 (Aug 1993).

"Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW846)", Third Edition.

<sup>&</sup>quot;Standard Methods for the Examination of Water and Wastewaters", (SM).

<sup>&</sup>quot;American Society for Testing and Materials" (ASTM).

<sup>&</sup>quot;Association of Analytical Chemists" (AOAC).



#### **ANALYTICAL RESULTS**

AIC No. 202276-1

Sample Identification: Influent 10-May-2016 1000

Analyte		Result	RL	Units	Qualifier
Total Recoverable Phenolic EPA 420.1	s Prep: 19-May-2016 0835 by 319	110 Analyzed: 19-May-	5 -2016 1443 by 319	ug/I Batch: W55975	<u> </u>
<b>Total Cyanide</b> SM 4500-CN C,E 1999	Prep: 19-May-2016 0828 by 308	< 10 Analyzed: 19-May-	10 -2016 1051 by 308	ug/l Batch: W55974	
AIC No. 202276.2					

**AIC No.** 202276-2

Sample Identification: Influent 10-May-2016 1600

< 60 Analyzed: 18-May-2 2.0 Analyzed: 18-May-2 < 0.5 Analyzed: 18-May-2 < 0.5 Analyzed: 18-May-2 < 10 Analyzed: 18-May-2 Analyzed: 18-May-2 Analyzed: 18-May-2	0.5 2016 1742 by 317 0.5 2016 1742 by 317 0.5 2016 1742 by 317 10 2016 1742 by 317 0.5	ug/l Batch: S41152	Qualifier
Analyzed: 18-May-2  < 0.5  Analyzed: 18-May-2  < 0.5  Analyzed: 18-May-2  < 10  Analyzed: 18-May-2  Analyzed: 18-May-2	2016 1742 by 317 0.5 2016 1742 by 317 0.5 2016 1742 by 317 10 2016 1742 by 317 0.5	Batch: S41152 ug/l Batch: S41152 ug/l Batch: S41152 ug/l Batch: S41152	
Analyzed: 18-May-2 < 0.5 Analyzed: 18-May-2 < 10 Analyzed: 18-May-2 18	2016 1742 by 317 0.5 2016 1742 by 317 10 2016 1742 by 317 0.5	Batch: S41152 ug/l Batch: S41152 ug/l Batch: S41152	
Analyzed: 18-May-2 < <b>10</b> Analyzed: 18-May-2 <b>18</b>	2016 1742 by 317 10 2016 1742 by 317 0.5	Batch: S41152 ug/l Batch: S41152	
Analyzed: 18-May-2 18	2016 1742 by 317 0.5	Batch: S41152	
. •			
	2016 1742 by 317	ug/l Batch: S41152	
<b>).56</b> Analyzed: 18-May-2	0.5 2016 1742 by 317	<b>ug/l</b> Batch: S41152	
< <b>8</b> Analyzed: 18-May-2	8 2016 1742 by 317	<b>ug/l</b> Batch: S41152	
<b>5.6</b> Analyzed: 18-May-2	0.5 2016 1742 by 317	ug/l Batch: S41152	-
< 5	5	<b>ug/l</b> Batch: S41152	
< <b>0.5</b> Analyzed: 18-May-2	0.5 2016 1742 by 317	ug/l Batch: S41152	
< <b>0.5</b> Analyzed: 18-May-2	0.5 2016 1742 by 317	ug/l Batch: S41152	
110 Analyzed: 18-May-2	20 2016 1742 by 317	<b>ug/l</b> Batch: S41152	
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	nalyzed: 18-May-2 .6 nalyzed: 18-May-2 5 nalyzed: 18-May-2 0.5 nalyzed: 18-May-2 0.5 nalyzed: 18-May-2	nalyzed: 18-May-2016 1742 by 317  6 0.5 nalyzed: 18-May-2016 1742 by 317  5 5 nalyzed: 18-May-2016 1742 by 317  0.5 0.5 nalyzed: 18-May-2016 1742 by 317  0.5 0.5 nalyzed: 18-May-2016 1742 by 317	Description of the property of

AIC No. 202276-3

Sample Identification: Effluent 13-May-2016 0200

	,				
Analyte	<u> </u>	Result	RL	Units	Qualifier
<b>Total Recoverable Phenolic</b>	Š	43	5	ua/l	
EPA 420.1	Prep: 19-May-2016 0835 by 319	Analyzed: 19-May-	2016 1444 by 319	Batch: W55975	



#### **ANALYTICAL RESULTS**

AIC No. 202276-3 (Continued)

Sample Identification: Effluent 13-May-2016 0200

Analyte		Result	RL	Units	Qualifier
Total Cyanide	-	< 10	10	ug/l	
SM 4500-CN C,E 1999	Prep: 19-May-2016 0828 by 308	Analyzed: 19-M	lav-2016 1052 by 308	Batch: W55974	

AIC No. 202276-4

Sample Identification: Effluent 13-May-2016 0800

Analyte		Result	RL	Units	Qualifier
Total Recoverable Antimony EPA 200.8	/ Prep: 18-May-2016 1320 by 317	< 60 Analyzed: 18-May	60 -2016 1748 by 317	<b>ug/l</b> Batch: S41152	
Total Recoverable Arsenic EPA 200.8	Prep: 18-May-2016 1320 by 317	< 0.5 Analyzed: 18-May	0.5 -2016 1748 by 317	<b>ug/l</b> Batch: S41152	
Total Recoverable Beryllium EPA 200.8	l Prep: 18-May-2016 1320 by 317	< 0.5 Analyzed: 18-May	0.5 -2016 1748 by 317	<b>ug/l</b> Batch: S41152	
Total Recoverable Cadmium EPA 200.8	Prep: 18-May-2016 1320 by 317	< 0.5 Analyzed: 18-May	0.5 -2016 1748 by 317	<b>ug/l</b> Batch: S41152	
Total Recoverable Chromiur EPA 200.8	<b>n</b> Prep: 18-May-2016 1320 by 317	< 10 Analyzed: 18-May	10 -2016 1748 by 317	<b>ug/l</b> Batch: S41152	
<b>Total Recoverable Copper</b> EPA 200.8	Prep: 18-May-2016 1320 by 317	3.4 Analyzed: 18-May	0.5 -2016 1748 by 317	<b>ug/l</b> Batch: S41152	
Total Recoverable Lead EPA 200.8	Prep: 18-May-2016 1320 by 317	< 0.5 Analyzed: 18-May	0.5 -2016 1748 by 317	<b>ug/i</b> Batch: S41152	
Total Recoverable Molybder EPA 200.8	num Prep: 18-May-2016 1320 by 317	< 8 Analyzed: 18-May	8 -2016 1748 by 317	<b>ug/l</b> Batch: S41152	
Total Recoverable Nickel EPA 200.8	Prep: 18-May-2016 1320 by 317	<b>3.6</b> Analyzed: 18-May	0.5 -2016 1748 by 317	<b>ug/l</b> Batch: S41152	
Total Recoverable Selenium EPA 200.8	Prep: 18-May-2016 1320 by 317	< 5 Analyzed: 18-May	5 -2016 1748 by 317	<b>ug/l</b> Batch: S41152	
Total Recoverable Silver EPA 200.8	Prep: 18-May-2016 1320 by 317	< 0.5 Analyzed: 18-May	0.5 -2016 1748 by 317	<b>ug/l</b> Batch: S41152	
Total Recoverable Thallium EPA 200.8	Prep: 18-May-2016 1320 by 317	< 0.5 Analyzed: 18-May	0.5 -2016 1748 by 317	<b>ug/l</b> Batch: S41152	
Total Recoverable Zinc EPA 200.8	Prep: 18-May-2016 1320 by 317	<b>32</b> Analyzed: 18-May	20 -2016 1748 by 317	<b>ug/l</b> Batch: S41152	

AIC No. 202276-5

Sample Identification: Belt Press Influent 13-May-2016 0800

Analyte		Result	RL	Units	Qualifier
Total Cyanide EPA 9010C, 9014	Prep: 23-May-2016 1344 by 319	< 3 Analyzed: 23-May	3 -2016 1637 by 319	mg/Kg Batch: W56007	·
Total Recoverable Phenolics EPA 9065	Prep: 23-May-2016 0742 by 308	< 20 Analyzed: 23-May	20 -2016 1416 by 308	mg/Kg Batch: W56001	



### **ANALYTICAL RESULTS**

AIC No. 202276-5 (Continued)
Sample Identification: Belt Press Influent 13-May-2016 0800

Analyte		Result RL	Units	Qualifier
Total Solids SM 2540 G 1997	Prep: 18-May-2016 1343 by 100	3.6 0.01 Analyzed: 19-May-2016 1032 by 100	wt % Batch: W55961	
<b>Antimony</b> EPA 3051A, 6010C	Prep: 19-May-2016 0923 by 313	< 3 Analyzed: 20-May-2016 1205 by 317	mg/Kg Batch: S41159	ż
<b>Arsenic</b> EPA 3051A, 6010C	Prep: 19-May-2016 0923 by 313	< 5 Analyzed: 20-May-2016 1205 by 317	mg/Kg Batch: S41159	
<b>Beryllium</b> EPA 3051A, 6010C	Prep: 19-May-2016 0923 by 313	< 0.03 0.03 Analyzed: 20-May-2016 1205 by 317	mg/Kg Batch: S41159	٠
<b>Cadmium</b> EPA 3051A, 6010C	Prep: 19-May-2016 0923 by 313	< 0.4 0.4 Analyzed: 20-May-2016 1205 by 317	mg/Kg Batch: S41159	
Chromium EPA 3051A, 6010C	Prep: 19-May-2016 0923 by 313	<b>12</b> 0.7 Analyzed: 20-May-2016 1205 by 317	mg/Kg Batch: S41159	
<b>Copper</b> EPA 3051A, 6010C	Prep: 19-May-2016 0923 by 313	90 0.6 Analyzed: 20-May-2016 1205 by 317	mg/Kg Batch: S41159	
<b>Lead</b> EPA 3051A, 6010C	Prep: 19-May-2016 0923 by 313	< 4 4 Analyzed: 20-May-2016 1205 by 317	mg/Kg Batch: S41159	
<b>Molybdenum</b> EPA 3051A, 6010C	Prep: 19-May-2016 0923 by 313	<b>5.2</b> 0.8 Analyzed: 20-May-2016 1205 by 317	mg/Kg Batch: S41159	
<b>Nickel</b> EPA 3051A, 6010C	Prep: 19-May-2016 0923 by 313	<b>15</b> 1 Analyzed: 20-May-2016 1205 by 317	mg/Kg Batch: S41159	
<b>Selenium</b> EPA 3051A, 6010C	Prep: 19-May-2016 0923 by 313	< 7 Analyzed: 20-May-2016 1205 by 317	mg/Kg Batch: S41159	ı
<b>Silver</b> EPA 3051A, 6010C	Prep: 19-May-2016 0923 by 313	<b>1.4</b> 0.7 Analyzed: 20-May-2016 1205 by 317	mg/Kg Batch: S41159	
<b>Thallium</b> EPA 3051A, 6010C	Prep: 19-May-2016 0923 by 313	< 4 Analyzed: 20-May-2016 1205 by 317	mg/Kg Batch: S41159	
<b>Zinc</b> EPA 3051A, 6010C	Prep: 19-May-2016 0923 by 313	<b>270</b> 0.2 Analyzed: 20-May-2016 1205 by 317	mg/Kg Batch: S41159	
Mercury EPA 7471B	Prep: 20-May-2016 1044 by 313	<b>0.18</b> 0.1 Analyzed: 27-May-2016 1714 by 313	mg/Kg Batch: S41167	



#### **DUPLICATE RESULTS**

					RPD				
Analyte	<del></del>	AIC No.	Result	RPD	Limit	Preparation Date	Analysis Date	Dii	Qual
Total Solids		202227-1	31 wt %			18May16 1135 by 100	19May16 1032 by 100		- —
	Batch: W55961	Duplicate	31 wt %	0.788	10.0	18May16 1135 by 100	19May16 1032 by 100		

#### **LABORATORY CONTROL SAMPLE RESULTS**

Analyte	Spike Amount	%	Limits	RPD	Limit	Batch	Preparation Date	Analysis Date	Dil	Qual
Total Recoverable Phenolics	0.1 mg/l	93.3	85.0-115			W55975	19May16 0836 by 319	19May16 1439 by 319		Quai
Total Cyanide	0.1 mg/l	88.7	85.0-115			W55974	19May16 0829 by 308	19May16 1044 by 308		
Total Recoverable Antimony	0.05 mg/l	101	85.0-115			S41152	18May16 0836 by 317	18May16 1613 by 317		
Total Recoverable Arsenic	0.05 mg/l	97.8	85.0-115			S41152	18May16 0836 by 317	18May16 1613 by 317		
Total Recoverable Beryllium	0.05 mg/l	99.1	85.0-115			S41152	18May16 0836 by 317	18May16 1613 by 317		
Total Recoverable Cadmium	0.05 mg/l	101	85.0-115			S41152	18May16 0836 by 317	18May16 1613 by 317		
Total Recoverable Chromium	0.05 mg/l	102	85.0-115			S41152	18May16 0836 by 317	18May16 1613 by 317		
Total Recoverable Copper	0.05 mg/l	98.5	85.0-115			S41152	18May16 0836 by 317	18May16 1613 by 317		
Total Recoverable Lead	0.05 mg/l	99.0	85.0-115			S41152	18May16 0836 by 317	18May16 1613 by 317		
Total Recoverable Molybdenum	0.05 mg/l	101	85.0-115			S41152	18May16 0836 by 317	18May16 1613 by 317		
Total Recoverable Nickel	0.05 mg/l	99.6	85.0-115			S41152	18May16 0836 by 317	18May16 1613 by 317		
Total Recoverable Selenium	0.05 mg/l	99.3	85.0-115			S41152	18May16 0836 by 317	18May16 1613 by 317		
Total Recoverable Silver	0.02 mg/l	102	85.0-115			S41152	18May16 0836 by 317	18May16 1613 by 317		
Total Recoverable Thallium	0.05 mg/l	99.2	85.0-115			S41152	18May16 0836 by 317	18May16 1613 by 317		
Total Recoverable Zinc	0.05 mg/l	101	85.0-115			S41152	18May16 0836 by 317	18May16 1613 by 317		
Total Cyanide	0.500 mg/Kg	97.7	85.0-115			W56007	23May16 1344 by 319	23May16 1635 by 319		
Total Recoverable Phenolics	10.0 mg/Kg	95.2	85.0-115			W56001	23May16 0743 by 308	23May16 1415 by 308		
Antimony	500 mg/Kg	90.4	85.0-115			S41159	19May16 0923 by 313	19May16 1411 by 317		
Arsenic	500 mg/Kg	92.6	85.0-115			S41159	19May16 0923 by 313	19May16 1411 by 317		
Beryllium	50.0 mg/Kg	91.4	85.0-115			S41159	19May16 0923 by 313	19May16 1411 by 317		
Cadmium	500 mg/Kg	91.7	85.0-115			S41159	19May16 0923 by 313	19May16 1411 by 317		
Chromium	50.0 mg/Kg	88.0	85.0-115			S41159	19May16 0923 by 313	19May16 1411 by 317		
Copper	50.0 mg/Kg	95.7	85.0-115			S41159	19May16 0923 by 313	19May16 1411 by 317		
Lead	500 mg/Kg	93.1	85.0-115			S41159	19May16 0923 by 313	19May16 1411 by 317		
Molybdenum	50.0 mg/Kg	90.9	85.0-115			S41159	19May16 0923 by 313	19May16 1411 by 317		
Nickel	50.0 mg/Kg	92.2	85.0-115			S41159	19May16 0923 by 313	19May16 1411 by 317		
Selenium	500 mg/Kg	91.1	85.0-115			S41159	19May16 0923 by 313	19May16 1411 by 317		
Silver	10.0 mg/Kg	103	85.0-115			S41159	19May16 0923 by 313	20May16 1112 by 317		
Thallium	500 mg/Kg	90.2	85.0-115			S41159	19May16 0923 by 313	19May16 1411 by 317		
Zinc	50.0 mg/Kg	90.7	85.0-115			S41159	19May16 0923 by 313	19May16 1411 by 317		
Mercury	1.25 mg/Kg	104	85.0-115			S41167	20May16 1044 by 313	27May16 1626 by 313		



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### MATRIX SPIKE SAMPLE RESULTS

Analyte	Sample	Spike Amount	%	Limits	Batch	Preparation Date	Analysis Date	Dil	Qual
Total Recoverable Phenolics.	202226-1 202226-1 Relative Per	0.1 mg/l 0.1 mg/l cent Difference:	90.2 83.7 7.48	80.0-120 80.0-120 10.0	W55975 W55975 W55975	19May16 0836 by 319 19May16 0836 by 319	19May16 1440 by 319 19May16 1441 by 319		<del></del>
Total Cyanide	202226-1 202226-1 Relative Per	0.1 mg/l 0.1 mg/l cent Difference:	86.9 91.5 5.16	75.0-125 75.0-125 20.0	W55974 W55974 W55974	19May16 0829 by 308 19May16 0829 by 308	19May16 1047 by 308 19May16 1049 by 308		
Total Recoverable Antimony	202231-2 202231-2 Relative Per	0.05 mg/l 0.05 mg/l cent Difference:	108 109 0.567	75.0-125 75.0-125 20.0	S41152 S41152 S41152	18May16 0836 by 317 18May16 0836 by 317	18May16 1618 by 317 18May16 1624 by 317		
Total Recoverable Arsenic	202231-2 202231-2 Relative Per	0.05 mg/l 0.05 mg/l cent Difference:	96.5 102 5.58	75.0-125 75.0-125 20.0	S41152 S41152 S41152	•	18May16 1618 by 317 18May16 1624 by 317		
Total Recoverable Beryllium	202231-2 202231-2 Relative Per	0.05 mg/l 0.05 mg/l cent Difference:	89.6 85.1 5.08	75.0-125 75.0-125 20.0	S41152 S41152 S41152		18May16 1618 by 317 18May16 1624 by 317		
Total Recoverable Cadmium	202231-2 202231-2 Relative Per	0.05 mg/l 0.05 mg/l cent Difference:	96.6 97.0 0.422	75.0-125 75.0-125 20.0	S41152 S41152 S41152	18May16 0836 by 317 18May16 0836 by 317			
Total Recoverable Chromium	202231-2 202231-2 Relative Per	0.05 mg/l 0.05 mg/l cent Difference:	93.9 83.9 11.2	75.0-125 75.0-125 20.0	S41152 S41152 S41152	18May16 0836 by 317 18May16 0836 by 317			
Total Recoverable Copper	202231-2 202231-2 Relative Per	0.05 mg/l 0.05 mg/l cent Difference:	92.3 85.3 5.36	75.0-125 75.0-125 20.0	S41152 S41152 S41152	18May16 0836 by 317 18May16 0836 by 317	•		
Total Recoverable Lead	202231-2 202231-2 Relative Per	0.05 mg/l 0.05 mg/l cent Difference:	107 111 1.20	75.0-125 75.0-125 20.0	S41152 S41152 S41152	18May16 0836 by 317 18May16 0836 by 317			
Total Recoverable Molybdenum	202231-2 202231-2 Relative Per	0.05 mg/l 0.05 mg/l cent Difference:	97.5 104 4.78	75.0-125 75.0-125 20.0	S41152 S41152 S41152	18May16 0836 by 317 18May16 0836 by 317	•		
Total Recoverable Nickel	202231-2 202231-2 Relative Per	0.05 mg/l 0.05 mg/l cent Difference:	87.1 79.6 7.52	75.0-125 75.0-125 20.0	S41152 S41152 S41152	18May16 0836 by 317 18May16 0836 by 317			
Total Recoverable Selenium	202231-2 202231-2 Relative Per	0.05 mg/l 0.05 mg/l cent Difference:	98.9 90.8 8.55	75.0-125 75.0-125 20.0	S41152 S41152 S41152	18May16 0836 by 317 18May16 0836 by 317	-		
Total Recoverable Silver	202231-2 202231-2 Relative Per	0.02 mg/l 0.02 mg/l cent Difference:	94.9 93.0 2.00	75.0-125 75.0-125 20.0	S41152 S41152 S41152	18May16 0836 by 317 18May16 0836 by 317			
Total Recoverable Thallium	202231-2 202231-2 Relative Per	0.05 mg/l 0.05 mg/l cent Difference:	90.8 91.1 0.335	75.0-125 75.0-125 20.0	S41152 S41152 S41152	18May16 0836 by 317 18May16 0836 by 317			
Total Recoverable Zinc	202231-2 202231-2 Relative Per	0.05 mg/l 0.05 mg/l cent Difference:	- 11.3	75.0-125 75.0-125 20.0	S41152 S41152 S41152	18May16 0836 by 317 18May16 0836 by 317	•		X X
Total Cyanide	202276-5 202276-5 Relative Per	0.985 mg/Kg 0.996 mg/Kg cent Difference:	79.7 80.8 1.10	75.0-125 75.0-125 20.0	W56007 W56007 W56007	23May16 1344 by 319 23May16 1344 by 319	•		
Total Recoverable Phenolics	202276-5 202276-5 Relative Per	9.45 mg/Kg 9.34 mg/Kg cent Difference:	90.9 93.4 2.80	80.0-120 80.0-120 10.0	W56001 W56001 W56001	23May16 0743 by 308 23May16 0743 by 308	•		



#### MATRIX SPIKE SAMPLE RESULTS

Analyte	Spike Sample Amount	%	Limits	Batch	Preparation Date	Analysis Date	Dil	Qual
Antimony	202266-1 498 mg/Kg 202266-1 499 mg/Kg Relative Percent Difference:	89.4 90.2 0.891	75.0-125 75.0-125 20.0	S41159 S41159 S41159	· <del>_ · · · · · · · · · · · · · · · · · ·</del>	20May16 1116 by 317	<u> </u>	
Arsenic	202266-1 498 mg/Kg 202266-1 499 mg/Kg Relative Percent Difference:	87.3 87.3 0.0886	75.0-125 75.0-125 20.0	S41159 S41159 S41159		19May16 1418 by 317 19May16 1426 by 317		
Beryllium	202266-1 49.8 mg/Kg 202266-1 49.9 mg/Kg Relative Percent Difference:	88.1 87.4 0.834	75.0-125 75.0-125 20.0	S41159 S41159 S41159	•	19May16 1418 by 317 19May16 1426 by 317		
Cadmium	202266-1 498 mg/Kg 202266-1 499 mg/Kg Relative Percent Difference:	78.0 77.7 0.493	75.0-125 75.0-125 20.0	S41159 S41159 S41159		19May16 1418 by 317 19May16 1426 by 317		
Chromium	202266-1 49.8 mg/Kg 202266-1 49.9 mg/Kg Relative Percent Difference:	91.8 93.1 0.856	75.0-125 75.0-125 20.0	S41159 S41159 S41159		20May16 1116 by 317 20May16 1123 by 317		
Copper	202266-1 49.8 mg/Kg 202266-1 49.9 mg/Kg Relative Percent Difference:	95.7 96.6 0.610	75.0-125 75.0-125 20.0	S41159 S41159 S41159		19May16 1418 by 317 19May16 1426 by 317		
Lead	202266-1 498 mg/Kg 202266-1 499 mg/Kg Relative Percent Difference:	87.2 86.7 0.567	75.0-125 75.0-125 20.0	S41159 S41159 S41159		19May16 1418 by 317 19May16 1426 by 317		
Molybdenum	202266-1 49.8 mg/Kg 202266-1 49.9 mg/Kg Relative Percent Difference:	84.7 83.9 0.953	75.0-125 75.0-125 20.0	S41159 S41159 S41159		19May16 1418 by 317 19May16 1426 by 317		
Nickel	202266-1 49.8 mg/Kg 202266-1 49.9 mg/Kg Relative Percent Difference:	91.5 91.6 0.0684	75.0-125 75.0-125 20.0	S41159 S41159 S41159	· · · · ·	19May16 1418 by 317 19May16 1426 by 317		
Selenium	202266-1 498 mg/Kg 202266-1 499 mg/Kg Relative Percent Difference:	84.7 84.3 0.474	75.0-125 75.0-125 20.0	S41159 S41159 S41159		19May16 1418 by 317 19May16 1426 by 317		
Silver	202266-1 9.95 mg/Kg 202266-1 9.98 mg/Kg Relative Percent Difference:	101 102 0.985	75.0-125 75.0-125 20.0	S41159 S41159 S41159	19May16 0923 by 313 19May16 0923 by 313	20May16 1116 by 317 20May16 1123 by 317		
Thallium	202266-1 498 mg/Kg 202266-1 499 mg/Kg Relative Percent Difference:	83.7 82.8 1.07	75.0-125 75.0-125 20.0	S41159 S41159 S41159		19May16 1418 by 317 19May16 1426 by 317		
Zinc	202266-1 49.8 mg/Kg 202266-1 49.9 mg/Kg Relative Percent Difference:	97.6 106 4.79	75.0-125 75.0-125 20.0	S41159 S41159 S41159	19May16 0923 by 313 19May16 0923 by 313	19May16 1418 by 317 19May16 1426 by 317		
Mercury	202242-1 2.47 mg/Kg 202242-1 2.48 mg/Kg Relative Percent Difference:	110 99.6 4.10	70.0-130 70.0-130 20.0	S41167 S41167 S41167		27May16 1654 by 313 27May16 1658 by 313		



#### **LABORATORY BLANK RESULTS**

Amelyan				QC			
Analyte Total Recoverable Phenolics	Result	RL	PQL	Sample	Preparation Date	Analysis Date	Qual
Total Cyanide	< 0.005 mg/l	0.005	0.005	W55975-1	19May16 0836 by 319	19May16 1438 by 319	
•	< 0.01 mg/l	0.01	0.01	W55974-1	19May16 0829 by 308	19May16 1043 by 308	
Total Recoverable Antimony	< 0.03 mg/l	0.03	0.03	S41152-1	18May16 0836 by 317	18May16 1607 by 317	
Total Recoverable Arsenic	< 0.0005 mg/l	0.0005	0.0005	S41152-1	18May16 0836 by 317	18May16 1607 by 317	
Total Recoverable Beryllium	< 0.0003 mg/l	0.0003	0.0003	S41152-1	18May16 0836 by 317	18May16 1607 by 317	
Total Recoverable Cadmium	< 0.0002 mg/l	0.0002	0.0002	S41152-1	18May16 0836 by 317	18May16 1607 by 317	
Total Recoverable Chromium	< 0.007 mg/l	0.007	0.007	S41152-1	18May16 0836 by 317	18May16 1607 by 317	
Total Recoverable Copper	< 0.0005 mg/l	0.0005	0.0005	S41152-1		18May16 1607 by 317	
Total Recoverable Lead	< 0.0005 mg/l	0.0005	0.0005	S41152-1		18May16 1607 by 317	
Total Recoverable Molybdenum	< 0.008 mg/l	0.008	0.008	S41152-1		18May16 1607 by 317	
Total Recoverable Nickel	< 0.0005 mg/l	0.0005	0.0005	S41152-1		18May16 1607 by 317	
Total Recoverable Selenium	< 0.002 mg/l	0.002	0.002	S41152-1		18May16 1607 by 317	
Total Recoverable Silver	< 0.0002 mg/l	0.0002	0.0002	S41152-1		18May16 1607 by 317	
Total Recoverable Thallium	< 0.0005 mg/l	0.0005	0.0005	S41152-1		18May16 1607 by 317	
Total Recoverable Zinc	< 0.002 mg/l	0.002	0.002	S41152-1		18May16 1607 by 317	
Total Cyanide	< 0.1 mg/Kg	0.1	0.1	W56007-1		23May16 1634 by 319	
Total Recoverable Phenolics	< 0.5 mg/Kg	0.5	0.5	W56001-1		23May16 1414 by 308	
Total Solids	< 0.01 wt %	0.01	0.01	W55961-1		19May16 1032 by 100	
Antimony	< 3 mg/Kg	3	3	S41159-1		19May16 1405 by 317	
Arsenic	< 5 mg/Kg	5	5	S41159-1		19May16 1405 by 317	
Beryllium	< 0.03 mg/Kg	0.03	0.03	S41159-1		19May16 1405 by 317	
Cadmium	< 0.4 mg/Kg	0.4	0.4	S41159-1		19May16 1405 by 317	
Chromium	< 0.7 mg/Kg	0.7	0.7	S41159-1		19May16 1405 by 317	
Copper	< 0.6 mg/Kg	0.6	0.6	S41159-1		19May16 1405 by 317	
Lead	< 4 mg/Kg	4	4	S41159-1	19May16 0923 by 313	-	
Molybdenum	< 0.8 mg/Kg	0.8	0.8	S41159-1		19May16 1405 by 317	
Nickel	< 1 mg/Kg	1	1	S41159-1	19May16 0923 by 313		
Selenium	< 7 mg/Kg	7	7	S41159-1	19May16 0923 by 313		
Silver	< 0.7 mg/Kg	0.7	0.7	S41159-1	19May16 0923 by 313		
Thallium	< 4 mg/Kg	4	4	S41159-1	19May16 0923 by 313	•	
Zinc	< 0.2 mg/Kg	0.2	0.2	S41159-1	19May16 0923 by 313		
Mercury	< 0.1 mg/Kg	0.1	0.1	S41167-1	20May16 1044 by 313		
•	5.1 mg/ng	0.,	J. 1	341101-1	20 May 10 1044 by 313	21 May 10 1023 By 313	



8600 Kanis Road Little Rock, AR 72204-2322 (501) 224-5060 FAX (501) 224-5072

CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

																			PAGE OF OF
PO No. NO											ANALYSES REQUESTED AIC CONTROL NO:								
Client	Client Springuale Water Utilities							OF											202276
Projec	t				<u></u>					.~	٦	PHEMOUCS,				ļ. J	]	1 1	AIC PROPOSAL NO:
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Manager: BRAD STEWART W 5 T								=	0	Y T	3	3	}			.	1	Received on Ice (4°C)?	
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Vho should AIC contact with questions: BRAD STEWART							- 1		quish	ed	-		Date/	Time		1 1	oived in	Lab Date/Time	
hone	hone: (479) 756-3659 Fax: (479) 750-7195								By:								By:`	$\gamma$	5/18/16
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	5/01																		FORM 0060

## Mercury One LTD

Mercury Analysis

**Analytical Report EPA Method 1631E** 

**Customer Name:** 

Report #:

160622-10 Springdale AR

Page 1 of 1

Date: 6/22/16

Springdale Water Utilities

P.O. Box 769

Springdale, AR 72765-0769

Attention:

Project/PO#					swu01
Lab /(Field ID) or (Customer ID)	Results ng/L	Results ng/L	Results ng/L	Results ng/L	Mercury One ID:
Plant Influent (Composite Samples 1-4)	154				160617-09
Plant Effluent (Composite Samples 1-4)		2.24			160617-10
Field Blank			<0.2		160617-11
Sample Type	Influent	Effluent	Field Blank		
Date Sampled:	6/6-7/2016	6/9-10/2016	1/0/00		
Date Received:	6/17/16	6/17/16	6/17/16		
Date Prepared:	6/17/16	6/17/16	6/17/16		l.
Date Analyzed:	6/21/16	6/21/16	6/21/16		
Time Analyzed	10:50	13:39	13:51		
Dilution Factor					
High Cal Range Used 1-1000 ng/L	Х			(	QCS/MS/MSD
Method Detection Limit	0.2ng/L				Acceptable Range
QCS (Quality Control Standard)	91%	,		1:	71-125%
Method Blank Result	<0.2	Method	l Blank Requ	irement	<0.2

M= Modified: See Below for Explanation

Dilution Factors are calculated into the results.

**Method Reporting Limit** 

0.5ng/L

RPD Acceptable Range <20%

Matrix Spike/ Matrix Spike Duplicate Recoveries

MS/MSD Acceptable Range

71-125%

Sample ID

MS %Recovery

MSD %Recovery

**RPD** 

160617-01

84.0%

86.4%

2.8%

Normal Calibration range 0.5-200ng/L

The results are related only to the samples presented on this report.

Arkansas Cert# 88-0911

The test results are certified to meet all requirements of the certifying authority

West Virginia Cert # 348

Other Codes

J\* = Estimated result,

\* A value found between the Reporting Limit and the Method Detection Limit is considered estimated or the sample was not received in proper condition as required by the method.

R\* = Rejected, Sample may not have met Method or sampling requirements.

William W. Purves

Wille w Pine

Rev 4 6/23/11

Fax: 330-963-1016

Phone: 330-963-0843

Chain of Custody Mercury One Ltd. 2241 Pinnacle Parkway, Suite B Twinsburg, OH 44087

Temp

Phone: 330-963-0843 Fax: 330-963-1016

E-Mail: customerservice@mercuryoneltd.com

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City: Somed	lcle st	ate: 1AR	Zip:	7-2762		- n c	ř
Phone: 479	- 756-3	659 F	ax: 47	9-750-719E-Mail: bs	lewar-	<u>@ Spr</u> ngdale	cooler com
Sampled By:	JRW, MA	PP, TCP		-			
Collection Date	Time	Sample Matrix	Comp/ Grab	Sample Description/Commo	ents	Mercury One Lab ID	
06/06/16	0700	w/w	G	PLANT INFLUENT	1	1/0)	
06/06/16	1058 70		G	Plant Influent		<b>\</b>	
06/06/16	1456	W/W	Ģ	Plant Influent		7140617	Pabc, D
06/07/16	0702	w/w	Ĝ	Plant Influent	. /		30,00
06/09/16	8000	ww	G	PLANT EFFEUENT.		\	
06/09/16	1100	nen	G	PLANT EFFUENT			
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Springdale Water Utilities P.O. Box 769 Springdale, AR 72765-0769 7013 0600 0001 6399 9521

GERITFIEU MAIL

UNITED STATES POSTAL SERVICES

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SPRINGDALE, AR 72764 JUL 16 AMOUNT

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RETURN RECEIPT REQUESTED

Arkansas Dept. of Environmental Quality
NPDES Enforcement Section
5301 Northshore Drive
North Little Rock, AR 72118-5317