

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

23 July 2019

Jason Bolenbaugh ADEQ 5301 Northshore Dr. North Little Rock, AR 72118

Project: Bethel Heights 04-00630

Project Number: July 2019 -- B.H. Drip Field Sampling

SDG Number: 1907253

Enclosed are the results of analyses for samples received by the laboratory on 16-Jul-19 15:31. If you have any questions concerning this report, please feel free to contact me.

# Sample Receipt Information:

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

Sincerely,

Norma James and/or Teresa Coins Technical Director and/or QA Officer

Norma James / Cheresa Coins

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23 July 2019

Jason Bolenbaugh ADEQ 5301 Northshore Dr.

North Little Rock, AR 72118 Project: Bethel Heights 04-00630

Project Number: July 2019 -- B.H. Drip Field Sampling

Date Received: 16-Jul-19 15:31



Sample Delivery Group -1907253

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

## **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



North Little Rock, AR 72118 Project: Bethel Heights 04-00630

Project Number: July 2019 -- B.H. Drip Field Sampling

Date Received: 16-Jul-19 15:31

### **ANALYTICAL RESULTS**

1907253-01 Lab Number: Sample Name: **BH01 Date/Time Collected:** 7/16/19 10:10 Water Sample Matrix: Units **Total Metals** Result Phosphorus mg/L 2.23 Wet Chemistry **Units** Result

MPN/100 mL

MPN/100 mL

496

**TNTC** 

Result

E. Coli

**Fecal Coliforms** 

### **ANALYTICAL RESULTS**

Lab Number: 1907253-02
Sample Name: BH03
Date/Time Collected: 7/16/19 10:41
Sample Matrix: Water

**Total Metals Units** Result Qualifier(s) Date/Time Analyzed Batch Method EPA 200.7, Rev 4.4 (1994) Phosphorus 7/18/19 10:59 B907280 mg/L 17.2 Wet Chemistry Units Result Qualifier(s) Date/Time Analyzed Batch Method IDEXX Colilert-18 MPN/100 mL **TNTC** E. Coli FC, TNTC 7/16/19 15:50 B907325 IDEXX Colilert-18 MPN/100 mL FC, TNTC **Fecal Coliforms TNTC** 7/16/19 16:36 B907284

Qualifier(s)

Qualifier(s)

FC, TNTC

Date/Time Analyzed

7/18/19 10:55

**Date/Time Analyzed** 

7/16/19 15:50

7/16/19 16:36

Date/Time Analyzed

# **ANALYTICAL RESULTS**

Lab Number: 1907253-03
Sample Name: BH04
Date/Time Collected: 7/16/19 11:02
Sample Matrix: Water

Units

**Total Metals** 

EPA 200.7, Rev 4.4 (1994) 7/18/19 11:03 B907280 Phosphorus 10.7 mg/L Wet Chemistry **Units** Result Qualifier(s) Date/Time Analyzed <u>Batch</u> Method MPN/100 mL IDEXX Colilert-18 **TNTC** FC, TNTC E. Coli 7/16/19 15:50 B907325 IDEXX Colilert-18 MPN/100 mL Fecal Coliforms **TNTC** FC, TNTC 7/16/19 16:36 B907284

Qualifier(s)

Arkansas Analytical

Batch

B907280

Batch

B907325

B907284

Batch

**Method** 

EPA 200.7, Rev 4.4 (1994)

Method IDEXX Colilert-18

IDEXX Colilert-18

Method

Jason Bolenbaugh ADEQ

5301 Northshore Dr.

North Little Rock, AR 72118 Project: Bethel Heights 04-00630

Project Number: July 2019 -- B.H. Drip Field Sampling

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### **ANALYTICAL RESULTS**

 Lab Number:
 1907253-04

 Sample Name:
 BH05

 Date/Time Collected:
 7/16/19 11:55

Sample Matrix: Water

Total Metals Units Result Qualifier(s) Date/Time Analyzed Batch Method

Phosphorus mg/L 2.81 7/18/19 11:07 B907280 EPA 200.7, Rev 4.4 (1994)

Arkansas Analytical

Wet Chemistry **Units** Result Qualifier(s) **Date/Time Analyzed** Batch Method IDEXX Colilert-18 MPN/100 mL E. Coli 7/16/19 15:50 B907325 41 MPN/100 mL IDEXX Colilert-18 **Fecal Coliforms** 79 7/16/19 16:36 B907284

**QUALITY CONTROL RESULTS** 

Total Metals -- Batch: B907280 (Water)

Prepared: 17-Jul-19 10:50 By: ST -- Analyzed: 18-Jul-19 09:58 By: ST

 Analyte
 BLK
 LCS / LCSD
 MS / MSD
 Dup
 RPD
 Qualifiers

 Phosphorus
 <0.036 mg/L</td>
 98.8% / NA
 106% / 104%
 1.86%

Wet Chemistry -- Batch: B907284 (Water)

Prepared: 16-Jul-19 15:02 By: CJ -- Analyzed: 16-Jul-19 15:02 By: CJ

<u>RPD</u> **Analyte** BLK LCS / LCSD MS / MSD <u>Dup</u> Qualifiers <1 MPN/100 mL **Fecal Coliforms** 35 MPN/100 NA / NA NA NA 26.5% mL

Wet Chemistry -- Batch: B907325 (Water)

Prepared: 16-Jul-19 15:50 By: CJ -- Analyzed: 16-Jul-19 15:50 By: CJ

**BLK** <u>Dup</u> **Analyte** LCS / LCSD MS / MSD **RPD** Qualifiers <1 MPN/100 mL E. Coli 1 NA NA NA 521 MPN/100 4.80% ml

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 and/or Teresa Coins Technical Director and/or QA Officer



# Arkansas Department of Environmental Quality for Compliance, Enforcement, or Emergency Samples



lt:	TRC Dup Result:					LAB ONLY	FOR COMPLETION BY LAB ONLY
	TRC Result:					0.0	4. Temp (°C) Upon Receipt 8
	Time Analyzed:					Yes No	
	Time Collected:					Yes No	2. COC & Labels Agree
Field TRC Measurement (mg/L)	Field TRC N			a l	T See	Yes No	Containers Correct
			REMARKS / SAMPLE COMMENTS	177		RECEIPT IN LAB	SAMPLE CONDITION UPON RECEIPT
				+			
				1			
-			1 89/	P W RR	1155 1	07/11/19	BH05
т - пре				P W ME	1155 (	07/16/19	BHOS
104				PWAE	1155 1	07/16/19	BHOS
+		0		PWAC	1102 1	07/16/19	BHOY
	200 20		E AE	P W ASS	1 2011	07/16/19	BHOH
000			W. C.	P W AEA	1102 1	07/16/19	BHOH
ţ				PWAC	1041	21/21/20	BH03
			- this	PWAR	1041 1	07/16/19	BH03
02				PWAE	1641	07/16/19	BH03
01		5		PWAC	1010	07/16/19	BHOI
1				P W RE	7-16-19/123 +		
+	33	.5%		P W AE	1010 1	07/16/19	BHOI
01	. a 2			PWAE	1000	07/16/19	BHOI
Lab # (dd.dddddd) Lab #	Latitude (dd.ddddd)	Field Measurements  Time Analyzed pH (SU) DO (mg/L) Temp (*C)	E.	Media Prese	Time Collected a (hh:mm) G	Date Collected (mm/dd/yy)	Sample ID
	B = other	11	COI TAL OSP	Cod	(1) or	1001	JASON DOLENO
F = Other (specify)	F = whole fish	7 1	17	e	· Cor	MACH	Tacan Rais isanca
D = NaOH	S = soil or solid	O = Other (Specify) S	205	1	npos		Printed Name of Sampler
	L = liquid (not water)	A = Amber Glass L:		N	ite (2	MG	FIELD SAMPLING
B = Sulfuric Acid	G = groundwater	= Glass			04-06630	SUKIF	BEINEL MEIGHT
A = Cool to < 6°C	Media Code W = water	Container Type Code  P = Polyethylene/Plastic W	Parameters Requested  Total No. of Containers	Sample Characteristics	AFIN # / County	20.0	.∐∺

ıc	Signature	Signature		
э	Name/Title	Mame/Title		
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ıe	Signature	Signature	85	33
Э	Name/Title	Name/Title		
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4048		25 - 100	N1	
SOHS		1701	5178176-58	-
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23 July 2019

Jason Bolenbaugh ADEQ 5301 Northshore Dr. North Little Rock, AR 72118

Project: Bethel Heights 04-00630

Project Number: July 2019 -- Phase 1-3

SDG Number: 1907254

Enclosed are the results of analyses for samples received by the laboratory on 16-Jul-19 15:29. 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	<b>~</b>
Received On Ice	<b>~</b>
Temperature on Receipt	3.0°C

Sincerely,

Norma James and/or Teresa Coins

Norma James / Cheresa Coins

Technical Director and/or QA Officer

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23 July 2019

Jason Bolenbaugh ADEQ 5301 Northshore Dr.

North Little Rock, AR 72118

Project: Bethel Heights 04-00630

Project Number: July 2019 -- Phase 1-3

Date Received: 16-Jul-19 15:29



Sample Delivery Group -1907254

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

## **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



North Little Rock, AR 72118 Project: Bethel Heights 04-00630

Project Number: July 2019 -- Phase 1-3

Date Received: 16-Jul-19 15:29



Lab Number: 1907254-01 Sample Name: Phase 2 Dup Date/Time Collected: 7/16/19 9:08

Sample Matrix: Water

Anions Nitrate + Nitrite Nitrate as N Nitrite as N	Units mg/L mg/L mg/L	Result < 0.500 0.397 < 0.250	Qualifier(s)	Date/Time Analyzed 7/17/19 8:06 7/17/19 8:06 7/17/19 8:06	Batch [CALC] B907257 B907257	Method EPA 300.0, 2.1-1993 EPA 300.0, 2.1-1993 EPA 300.0, 2.1-1993
<u>Total Metals</u>	<u>Units</u>	<u>Result</u>	Qualifier(s)	Date/Time Analyzed	<u>Batch</u>	Method
Phosphorus	mg/L	<b>7.35</b>		7/18/19 11:10	B907280	EPA 200.7, Rev 4.4 (1994)
Wet Chemistry Ammonia as N	<u>Units</u> mg/L	Result 28.0	Qualifier(s)	<u>Date/Time Analyzed</u> 7/22/19 7:54	<u>Batch</u> B907365	Method SM 4500-NH3 B,D,C-2011
Fecal Coliforms	MPN/100 mL	TNTC	FC, TNTC	7/16/19 16:36	B907284	IDEXX Colilert-18
TKN	mg/L	<b>42.3</b>		7/17/19 11:00	B907270	Hach 10242, Rev. 1.1, 2013
TSS	mg/L	13.5		7/18/19 16:15	B907310	I-3765-85/SM2540 D-2011
CBOD	mg/L	20.0		7/18/19 8:12	B907308	SM 5210 B-2011,Hach 10360

# **ANALYTICAL RESULTS**

Lab Number: 1907254-02
Sample Name: Phase 2
Date/Time Collected: 7/16/19 9:00
Sample Matrix: Water

<u>Anions</u>	<u>Units</u>	<u>Result</u>	Qualifier(s)	Date/Time Analyzed	<u>Batch</u>	<u>Method</u>
Nitrate + Nitrite	mg/L	< 0.500		7/17/19 8:28	[CALC]	EPA 300.0, 2.1-1993
Nitrate as N	mg/L	0.403		7/17/19 8:28	B907257	EPA 300.0, 2.1-1993
Nitrite as N	mg/L	< 0.250		7/17/19 8:28	B907257	EPA 300.0, 2.1-1993
Total Metals	<u>Units</u>	Result	Qualifier(s)	Date/Time Analyzed	<u>Batch</u>	<u>Method</u>
Phosphorus	mg/L	7.07		7/18/19 11:30	B907280	EPA 200.7, Rev 4.4 (1994)
Wet Chemistry	<u>Units</u>	Result	Qualifier(s)	Date/Time Analyzed	<u>Batch</u>	Method
Ammonia as N	mg/L	26.7		7/22/19 7:54	B907365	SM 4500-NH3 B,D,C-2011
Fecal Coliforms	MPN/100 mL	TNTC	FC, TNTC	7/16/19 16:36	B907284	IDEXX Colilert-18
TKN	mg/L	38.4		7/17/19 11:00	B907270	Hach 10242, Rev. 1.1, 2013
TSS	mg/L	13.5		7/18/19 16:15	B907310	I-3765-85/SM2540 D-2011
CBOD	mg/L	22.4		7/17/19 7:55	B907268	SM 5210 B-2011,Hach 10360

North Little Rock, AR 72118 Project: Bethel Heights 04-00630

Project Number: July 2019 -- Phase 1-3

Lab Number:

Sample Name:

Date Received: 16-Jul-19 15:29



1907254-03 Phase 3

Date/Time Collected: Sample Matrix:		7/16/19 9:23 Water				
Anions Nitrate + Nitrite	<u>Units</u> mg/L	Result 5.83	Qualifier(s)	Date/Time Analyzed 7/17/19 8:49	Batch [CALC]	Method EPA 300.0, 2.1-1993 EPA 300.0, 2.1-1993
Nitrate as N Nitrite as N	mg/L mg/L	4.67 1.16		7/17/19 8:49 7/17/19 8:49	B907257 B907257	EPA 300.0, 2.1-1993
<u>Total Metals</u> Phosphorus	<u>Units</u> mg/L	<u>Result</u> <b>6.51</b>	Qualifier(s)	<u>Date/Time Analyzed</u> 7/18/19 11:33	<u>Batch</u> B907280	Method EPA 200.7, Rev 4.4 (1994)
Wet Chemistry Ammonia as N Fecal Coliforms	<u>Units</u> mg/L MPN/100 mL	<u>Result</u> 10.4 12	Qualifier(s)	Date/Time Analyzed 7/22/19 7:54 7/16/19 16:36	Batch B907365 B907284	Method SM 4500-NH3 B,D,C-2011 IDEXX Colliert-18
TKN TSS CBOD	mg/L mg/L mg/L	8.25 4.50 6.00		7/17/19 11:00 7/18/19 16:15 7/18/19 8:12	B907270 B907310 B907308	Hach 10242, Rev. 1.1, 2013 I-3765-85/SM2540 D-2011 SM 5210 B-2011, Hach 10360

North Little Rock, AR 72118 Project: Bethel Heights 04-00630

Project Number: July 2019 -- Phase 1-3

Date Received: 16-Jul-19 15:29



		Anions Batch:	B907257 (Water)			
	Prepared: 1		- Analyzed: 16-Jul-19 19:3	9 By: MB		
Analyte	<u>BLK</u>	LCS / LCSD	MS / MSD	<u>Dup</u>	RPD	Qualifiers
Nitrate as N	<0.250 mg/L	99.3% / NA	98.9% / 98.8%		0.0454%	
Nitrite as N	<0.250 mg/L	100% / NA	101% / 102%		0.691%	
		Wet Chemistry Bat	• •			
	· · · · · · · · · · · · · · · · · · ·	7-Jul-19 07:55 By: TA	- Analyzed: 17-Jul-19 07:5			
<u>Analyte</u>	<u>BLK</u>	LCS / LCSD	MS / MSD	<u>Dup</u>	<u>RPD</u>	<u>Qualifiers</u>
CBOD	<2.00 mg/L	127% / 134%	NA / NA		5.41%	
		Wet Chemistry Bat	• •			
			- Analyzed: 17-Jul-19 11:0			
Analyte	<u>BLK</u>	LCS / LCSD	MS / MSD	<u>Dup</u>	<u>RPD</u>	<u>Qualifiers</u>
TKN	<0.50 mg/L	101% / 102%	118% / NA		1.39%	
		Total Metals Batcl	• •			
	· · · · · · · · · · · · · · · · · · ·	<del>-</del>	- Analyzed: 18-Jul-19 09:5			
<u>Analyte</u>	<u>BLK</u>	LCS / LCSD	MS / MSD	<u>Dup</u>	RPD	Qualifiers
Phosphorus	<0.036 mg/L	98.8% / NA	106% / 104%		1.86%	
		Wet Chemistry Bat	, ,			
		*	- Analyzed: 16-Jul-19 15:0	_		
Analyte	<b>BLK</b> <1 MPN/100 mL	LCS / LCSD	MS / MSD	<u>Dup</u>	RPD	Qualifiers
Fecal Coliforms	< T INIFIN 100 IIIL	NA / NA	NA / NA	35 MPN/100 mL	26.5%	
		Wet Chemistry Bat	ch: B907308 (Water)			
	Prepared: 1	8-Jul-19 08:12 By: MB	- Analyzed: 18-Jul-19 08:1	2 By: MB		
<u>Analyte</u>	<u>BLK</u>	LCS / LCSD	MS / MSD	<u>Dup</u>	<u>RPD</u>	Qualifiers
CBOD	<2.00 mg/L	125% / 121%	NA / NA		2.63%	
	Parameter 1 4	Wet Chemistry Bat	•	S Dow Mill		
			- Analyzed: 18-Jul-19 16:1		DOD	Overe
Analyte	<u>BLK</u>	LCS / LCSD	MS / MSD	<u>Dup</u>	<u>RPD</u>	Qualifiers
TSS	<1.00 mg/L	89.0% / 93.0%	NA / NA		4.40%	

Jason Bolenbaugh ADEQ

5301 Northshore Dr.

North Little Rock, AR 72118 Project: Bethel Heights 04-00630

Project Number: July 2019 -- Phase 1-3

Date Received: 16-Jul-19 15:29

QUALITY CONTROL RESULTS

Wet Chemistry -- Batch: B907365 (Water)

Prepared: 22-Jul-19 07:54 By: PD -- Analyzed: 22-Jul-19 07:54 By: EP

 Analyte
 BLK
 LCS / LCSD
 MS / MSD
 Dup
 RPD
 Qualifiers

 Ammonia as N
 <0.500 mg/L</td>
 84.2% / NA
 108% / 101%
 3.00%

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:

Noma James / Cheresa Coins

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 and/or Teresa Coins Technical Director and/or QA Officer



# Arkansas Department of Environmental Quality for Compliance, Enforcement, or Emergency Samples



Secolar Seco	l ff	TRC Dup Result:											ONLY	FOR COMPLETION BY LAB ONLY
Heights Phases 1 - 3		TRC Result:												
Folget Name		Time Analyzed:									- 7			<
Felight Briasses 1 - 3		Time Collected:												COC & Labels Agree
Continues	leasurement (mg/L)	Field TRC M											es No	1. Containers Correct
AFR #1 County   Common   Com				-	MENTS	E COM	/ SAMPL	MARKS	IR.		-		EIPT IN LAB	SAMPLE CONDITION UPON REC
AFINIA/County,   Contaments   County,   County,   Contaments   Conta				-							<u> </u>			
AFIN # I County   AFIN # I C	-								AE	\$				Phase 3
or Project Name  or Pr	- And						_		AC	8				Phase 3
Heights Phases 1 - 3									AB	8				Phase 3
Heights Phases 1 - 3	40	0	25,0	26.	0					8	-			Phase 3
AFIN#/County   Characteristics	-		-						AE.	8		-	07/16/19	Phase 2
AFIN #1 County   Characteristics   Parameters Requested   Container Type Code   Media Code   Preservations   Parameters Requested   Pa	20.00								AC	8				Phase 2
or Project Name         AFIN # / County II Heights         AFIN # / County II Heights         Sample Characteristics         Parameters Requested         Containors (Fig. 4) and the Code Containors (Fig. 4) and the Code Characteristics         Parameters Requested         Containors (Fig. 4) and the Code Characteristics         Parameters Requested         Containors (Fig. 4) and the Code Characteristics         Containors (Fig. 4) and the Code Characteristics         Peach (Fig. 4) and the Code Characteristics         Parameters Requested         Parameters Requested         Containors (Fig. 4) and the Code Characteristics         Parameters Requested		3							AB	8	1		07/16/19	Phase 2
or Project Name         AFIN # / County         Sample         Parameters Requested         Container Type Code         Media Code         Preserve           It Heights Phases 1 - 3         04-00630         20         Contained siscs         Total No. of Containers         P = Polyethylene/Plastic         W = water         W = water         A = Cool total No. of Containers         P = Polyethylene/Plastic         W = water         A = Cool total No. of Containers         D = Polyethylene/Plastic         W = water         A = Cool total No. of Containers         P = Polyethylene/Plastic         W = water         A = Cool total No. of Containers         D = Polyethylene/Plastic         W = water         A = Cool total No. of Containers         P = Polyethylene/Plastic         W = water         A = Cool total No. of Containers         D = No. of Containers         P = Polyethylene/Plastic         W = water         W = water         A = Cool total No. of Containers         P = Polyethylene/Plastic         W = water         Cool total No. of Containers         P = Polyethylene/Plastic         W = water         A = Cool total No. of Containers         P = Polyethylene/Plastic         W = water         Cool total No. of Containers         P = Polyethylene/Plastic         W = water         A = Cool total No. of Containers         P = Polyethylene/Plastic         W = water         A = Cool total No. of Containers         P = Polyethylene/Plastic         W = water         A = Cool total No. of Containers	02	8	75.	1920 6.77	^				-	8			07/16/19	
AFIN # / County   Characteristics   Parameters Requested   Container Type Code   Media Code   Preserve   Total No. of Containers   Parameters Requested   Containers   Parameters Requested   Containers   Parameters Requested   Preserve   Parameters Requested   Par	<b> </b>		2	20			-		AE	8	-		07/16/19	200
or Project Name         AFIN # / County         Sample         Parameters Requested         ContainerType Code         Media Code         Preserve Accol to Container Sequested         Container Sequested         Container Sequested         Container Sequested         Parameters Requested         Container Sequested         Parameters Requested         Container Sequested         Parameters Requested							_		AC	8			07/16/19	
or Project Name         AFIN # / County         Sample Characteristics         Parameters Requested         Container Type Code         Media Code         Preserve Media Code									AB	8			07/16/19	
AFIN #/ County   Characteristics   Parameters Requested   Container Type Code   Media Code   Preserve	10	8	25.		7					\$		_	07/16/19	
AFIN # / County   Sample   Characteristics   Total No. of Container   Type Code   Media Code   Preservation   AFIN # / County   Characteristics   Total No. of Container   P = Polyethylene/Plastic   W = water   A = Cool total   Media Code   Preservation   AFIN # / County   Characteristics   Total No. of Container   P = Polyethylene/Plastic   W = water   A = Cool total   Measurements   B = Sulfur   C = Nitric   C = Ni				- 1					AE	8			07/16/19	Phase 1
AFIN # / County Characteristics  Total No. of Containers  P = Polyethylene/Plastic  Media Code W = water A = Cool t A = Amber Glass D = cliquid (not water) C = Nitric O = Other (Specify) D = cliquid (not water) C = Nitric O = Other (Specify) D = cliquid (not water) D = cliquid (not water) D = cliquid (not water) C = Nitric O = Other (Specify) D = cliquid (not water) D = collected C = Nitric O = Other (Specify) D = cliquid (not water) D = cliqu				(	_				AC	8	21		07/16/19	Phase 1
AFIN #/ County   Sample   Characteristics   Total No. of Containers   Requested   Container Type Code   Media Code   Preserve		76	MIN	10 54					AB	8	1		07/16/19	Phase 1
AFIN # / County  Characteristics  Total No. of Containers  P = Polyethylene/Plastic  P = Polyethylene/Plastic  W = water  B = Sulfuric  C = Slass  A = Amber Glass  L = liquid (not water)  A = Amber Glass  L = liquid (not water)  A = Amber Glass  C = Slass  C = Slass  A = Amber Glass  D = Other (Specify)  S = soil or soild  D = NaOH  F = whole fish  F = Other  C = Other  C = Slass  A = Amber Glass  C = Slass  A = Amber Glass  B = Sulfuric  D = NaOH  F = whole fish  F = Other  F = Other  F = Other  C = Other  C = Nitric  D = NaOH  F = Other  F = Other  F = Other  C = Other  C = Other  C = Nitric  D = NaOH  F = whole fish  F = Other  C = Nitric  D = NaOH  F = whole fish  F = Other  C = O		\	)	)						8	-	°	07/16/19	Phase 1
AFIN # / County  Sample  Characteristics  Total No. of Containers  P = Polyethylene/Plastic  W = water  A = Amber Glass  D = Co		Latitude (dd.ddddd)		Field Measume Analyzed pH (SU) L	Ti-		То	1		Media	1	_		Sample ID
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AFIN # / County  Characteristics  Total No. of Containers  P = Polyethylene/Plastic  P = Polyethylene/Plastic  W = water  A = Amber Glass  O = Other (Specify)  S = soil or solid  D = Other (Specify)	E = Sodium Thiosulfate	E = edible tissue				CB	osp	+Ni			_	omo		
AFIN # / County  Sample  Parameters Requested  Container Type Code  Media Code  Media Code  Total No. of Containers  P = Polyethylene/Plastic  W = water  A = Amher Glass  L = liquid foot water  A = Amher Glass	D = NaOH	S = soil or solid		П	ol:		horu	trite			55110	osite		Printed Name of Sampler
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8100 National Dr. - Little Rock, AR 72209 501-455-3233 Fax 501-455-6118

23 July 2019

Jason Bolenbaugh **ADEQ** 5301 Northshore Dr. North Little Rock, AR 72118

Project: Bethel Heights 04-00630

Project Number: July 2019 -- Phase 4A & 4B

SDG Number: 1907255

Enclosed are the results of analyses for samples received by the laboratory on 16-Jul-19 15:30. If you have any questions concerning this report, please feel free to contact me.

# Sample Receipt Information:

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

Sincerely,

Norma James and/or Teresa Coins

Norma James / Cheresa Coins

Technical Director and/or QA Officer

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North Little Rock, AR 72118 Project: Bethel Heights 04-00630

Project Number: July 2019 -- Phase 4A & 4B

Date Received: 16-Jul-19 15:30

## **ANALYTICAL RESULTS**

Lab Number: 1907255-01
Sample Name: Phase 4A
Date/Time Collected: 7/16/19 11:38
Sample Matrix: Water

<u>Anions</u>	<u>Units</u>	<u>Result</u>	Qualifier(s)	Date/Time Analyzed	<u>Batch</u>	<u>Method</u>
Nitrate + Nitrite	mg/L	11.4		7/17/19 13:29	[CALC]	EPA 300.0, 2.1-1993
Nitrate as N	mg/L	11.1		7/17/19 13:29	B907257	EPA 300.0, 2.1-1993
Nitrite as N	mg/L	0.349		7/17/19 9:11	B907257	EPA 300.0, 2.1-1993
Total Metals	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Phosphorus	mg/L	6.92		7/18/19 11:37	B907280	EPA 200.7, Rev 4.4 (1994)
i nosphorus	mg/L	0.32		7710/13 11.07	B307 200	
Wet Chemistry	<u>Units</u>	Result	Qualifier(s)	Date/Time Analyzed	<u>Batch</u>	<u>Method</u>
Ammonia as N	mg/L	7.08		7/18/19 10:45	B907301	SM 4500-NH3 B,D,C-2011
Fecal Coliforms	MPN/100 mL	260		7/16/19 16:36	B907284	IDEXX Colilert-18
TKN	mg/L	< 1.00		7/17/19 11:00	B907270	Hach 10242, Rev. 1.1, 2013
TSS	mg/L	11.5		7/18/19 16:15	B907310	I-3765-85/SM2540 D-2011
CBOD	mg/L	6.36		7/18/19 8:12	B907308	SM 5210 B-2011,Hach 10360

## **ANALYTICAL RESULTS**

Lab Number: 1907255-02
Sample Name: Phase 4B
Date/Time Collected: 7/16/19 11:44
Sample Matrix: Water

<u>Anions</u>	<u>Units</u>	<u>Result</u>	Qualifier(s)	Date/Time Analyzed	<u>Batch</u>	<u>Method</u>
Nitrate + Nitrite	mg/L	13.2		7/17/19 13:50	[CALC]	EPA 300.0, 2.1-1993
Nitrate as N	mg/L	12.8		7/17/19 13:50	B907257	EPA 300.0, 2.1-1993
Nitrite as N	mg/L	0.351		7/17/19 9:32	B907257	EPA 300.0, 2.1-1993
Total Metals	<u>Units</u>	Result	Qualifier(s)	Date/Time Analyzed	<u>Batch</u>	<u>Method</u>
Phosphorus	mg/L	6.54		7/18/19 11:41	B907280	EPA 200.7, Rev 4.4 (1994)
Wet Chemistry	<u>Units</u>	Result	Qualifier(s)	Date/Time Analyzed	<u>Batch</u>	Method
Ammonia as N	mg/L	13.3		7/18/19 10:45	B907301	SM 4500-NH3 B,D,C-2011
Fecal Coliforms	MPN/100 mL	820		7/16/19 16:36	B907284	IDEXX Colilert-18
TKN	mg/L	< 1.00		7/17/19 11:00	B907270	Hach 10242, Rev. 1.1, 2013
TSS	mg/L	39.5		7/18/19 16:15	B907310	I-3765-85/SM2540 D-2011
CBOD	mg/L	11.7		7/18/19 8:12	B907308	SM 5210 B-2011,Hach 10360

North Little Rock, AR 72118 Project: Bethel Heights 04-00630

Project Number: July 2019 -- Phase 4A & 4B

Date Received: 16-Jul-19 15:30



		Anions Batch:	B907257 (Water)			
	Prepared: 10		Analyzed: 16-Jul-19 19:3	9 By: MB		
Analyte	<u>BLK</u>	LCS / LCSD	MS / MSD	<u>Dup</u>	RPD	Qualifiers
Nitrate as N	<0.250 mg/L	99.3% / NA	98.9% / 98.8%		0.0454%	
Nitrite as N	<0.250 mg/L	100% / NA	101% / 102%		0.691%	
		Wet Chemistry Bat				
	Prepared: 1	7-Jul-19 11:00 By: HF	Analyzed: 17-Jul-19 11:0	0 By: HF		
<u>Analyte</u>	<u>BLK</u>	LCS / LCSD	MS / MSD	<u>Dup</u>	<u>RPD</u>	Qualifiers
TKN	<0.50 mg/L	101% / 102%	118% / NA		1.39%	
		Total Metals Batcl	• •			
		7-Jul-19 10:50 By: ST	Analyzed: 18-Jul-19 09:5	8 By: ST		
<u>Analyte</u>	<u>BLK</u>	LCS / LCSD	MS / MSD	<u>Dup</u>	<u>RPD</u>	<u>Qualifiers</u>
Phosphorus	<0.036 mg/L	98.8% / NA	106% / 104%		1.86%	
		Wet Chemistry Bat				
		<del></del>	Analyzed: 16-Jul-19 15:0			
Analyte	<b>BLK</b> <1 MPN/100 mL	LCS / LCSD	MS / MSD	<u>Dup</u> 35 MPN/100	RPD	Qualifiers
Fecal Coliforms	TI WILLY TOO INC	NA / NA	NA / NA	mL	26.5%	
		Wet Chemistry Bat				
	Prepared: 1	8-Jul-19 10:45 By: PD	Analyzed: 18-Jul-19 10:4	5 By: PD		
<u>Analyte</u>	<u>BLK</u>	LCS / LCSD	MS / MSD	<u>Dup</u>	RPD	Qualifiers
Ammonia as N	<0.500 mg/L	92.7% / NA	102% / 96.4%		3.99%	
		Wet Chemistry Bat	` '			
	Prepared: 18	8-Jul-19 08:12 By: MB	Analyzed: 18-Jul-19 08:1	2 By: MB		
<u>Analyte</u>	<u>BLK</u>	LCS / LCSD	MS / MSD	<u>Dup</u>	<u>RPD</u>	Qualifiers
CBOD	<2.00 mg/L	125% / 121%	NA / NA		2.63%	
	Duamana de 44	Wet Chemistry Bat	• • •	E Day MU		
			Analyzed: 18-Jul-19 16:1			0
<u>Analyte</u>	<u>BLK</u>	LCS / LCSD	MS / MSD	<u>Dup</u>	<u>RPD</u>	Qualifiers
TSS	<1.00 mg/L	89.0% / 93.0%	NA / NA		4.40%	

North Little Rock, AR 72118

Project: Bethel Heights 04-00630

Project Number: July 2019 -- Phase 4A & 4B

Date Received: 16-Jul-19 15:30

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 and/or Teresa Coins Technical Director and/or QA Officer

Noma James / Cleresa Coins



# Arkansas Department of Environmental Quality for Compliance, Enforcement, or Emergency Samples



τ.	TRC Dup Result:												AB ONLY	FOR COMPLETION BY LAB ONLY
	TRC Result:	*											C	4. Temp (°C) Upon Receipt 3
	Time Analyzed:												Yes No	3. Received On Ice
	Time Collected:												Yes No	COC & Labels Agree
Field TRC Measurement (mg/L)	Field TRC M												Yes No	1. Containers Correct
					MENTS	PLE COM	REMARKS / SAMPLE COMMENTS	REMAR			-	2	CEIPT IN LAB	SAMPLE CONDITION UPON RECEIPT IN LAB
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10	7	2.	85.9	1 0/11					>	×	1 P	1138	07/16/19	Phase 4A
Lab # Lab #	Latitude (dd.ddddd)	Temp	Field Measurements	Field Mea					Preser	Media		Time Collected (hh:mm)	Date Collected (mm/dd/yy)	Sample ID
E = Sodium Thiosulfate F = Other (specify)	E = edible tissue F = whole fish B = other	B 71 m	11	Instantaneous		FCB	NH3-N, Tall Phos	SS, CB0 litrate+N	vation Ty		1) or Com		-	Jason Bolenbaugh
D = NaOH	S = soil or solid	S	Other (Specify)	п					oe		posi			Printed Name of Sampler
B = Sulfuric Acid C = Nitric Acid	G = groundwater L = liquid (not water)		Glass Amber Glass	G = Glass A = Amber							te (2)	04-00630	and 4B	Bethel Heights Phases 4A and 4B
A = Cool to ≤ 6°C	W = water		Polyethylene/Plastic	P = Polyet	iers	of Contain	Total No. of Containers		stics	Characteristics	Cha		- ;	: :
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